Growing
through
adolescence

A training pack based on a Health Promoting School approach to healthy eating

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Growing Through Adolescence - Introduction

This training resource has been produced as part of NHS Health Scotland's collaborating Centre agreement with The World Health Organization's European Offices in Copenhagen and Venice.   Growing Through Adolescence provides support for The European Network of Health Promoting Schools initiative of The World Health Organization, The European Commission and The Council of Europe.

Across Europe there are a wide range of different historical and cultural factors that influence our attitudes to food and eating.   However there is also evidence of social forces acting in a similar way in many European countries.   Concerns are increasing about the eating patterns and activity levels of many young people in Europe, and the associated growth in overweight and obese children.   In parallel there is evidence that increasing numbers of young people are unhappy with their body size and shape and are more frequently becoming involved in dieting and unhealthy eating patterns.   The resource explores the biological, social and emotional issues around health using a participative training approach and it aims to enable teachers to be confident with these issues in the classroom and in the health promoting school.

The Resource is designed for trainers working with teachers of children particularly in the age range 8 to 14 years.   The trainers may be teacher educators, education advisors, health promotion specialists, health promoting school co-ordinators, school nurses or school doctors.   The Resource has the following chapters:

Chapter 1   Trainers Notes
These have concise information on how trainers can integrate the component parts of the resource to develop a coherent programme that meets the needs of teachers participating in the training.

Chapter 2   Pre-designed Training Sessions
These consist of five training sessions of approximately three hours duration each.   They aim to develop teachers' knowledge and skills on the complex issues of healthy eating for young people as they develop through puberty and adolescence.

Chapter 3   Training Session Activities
These provide a large 'menu' of training activities from which trainers will be able to select the most appropriate activities to meet the needs of different groups of teachers.

Chapter 4   Background Resource
This contains sections, with background information and appropriate research references on some of the key issues around healthy eating, including the mental health and social health aspects as well as the biological issues.

Chapter 5   Factsheets
The eight factsheets provide summary information and key statistics on adolescence and healthy eating.

Ian Young, Editor, NHS Health Scotland, January 2005

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Research
This resource utilises a wide range of research sources but particular thanks goes to colleagues across Europe whose work on the Health Behaviour of School-Aged Children study has helped to inform this version of the training manual.

Chapter one:
Trainers notes

Chapter 1

Trainers' Notes

This chapter has summary information for trainers on aspects of training approaches.   It also offers guidance on how trainers can integrate the component parts of the resource to develop a coherent programme that meets the varied needs of teachers participating in the training.

Growing Through Adolescence Trainers' Notes

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Knowing Your Way Around The Resource

Aim of the trainers' notes
The aim of these notes is to offer support and guidance to the *Growing Through Adolescence* training materials.

The notes are informed by the experience of piloting the materials. They provide information about the training process, from identifying training needs, through designing and delivering training sessions, to evaluation. This is likely to be of most value to trainers with limited training experience.

The information provided is only a brief outline of what is involved in training. If you feel you need to know more, references and further reading suggestions are at the end of these notes.

The training materials
The main aim of *Growing Through Adolescence* is to provide up-to-date information on healthy eating and emotional and social health for trainers to use in training sessions with children aged eight to 14 years.

The training materials consist of:

- Five pre-designed training sessions (Chapter 2)
- A menu of activities you can use to design tailored training sessions (Chapter 3)

The pre-designed training sessions (Chapter 2)
The training sessions show how activities from the main section of the resource can be put together to make a session of approximately three hours duration. The training sessions included are:

- What is healthy eating?
- A balanced life
- Adjusting to puberty
- Out of balance
- A Health Promoting School approach to healthy eating.

The activities (Chapter 3)
The main section of *Growing Through Adolescence* describes activities you can use in training sessions, tailored to suit the needs of a particular group. The activities are grouped in eight themes to help you find your way around:

- Healthy eating.
- A balanced life - the importance of physical activity.
- Body image.
- Puberty.
- The media.
- Dieting.
- Eating disorders.
- A Health Promoting School approach to healthy eating.

This is not to suggest they must be used in this specific order. It is hoped that trainers will pick and mix from the activities and sections.

The activities are aimed at teachers and are not written for use in the classroom. You may need to make this clear to participants. They might consider some of the activities suitable for the classroom, but you will need to allow time for them to discuss how they might be used and how they would need to be adapted.

Using the pre-designed training sessions and the activities
By providing both pre-designed training sessions and a 'menu' of training activities, the aim is to build flexibility into the resource to help you plan training programmes that best suit the needs of participants, your training style and the practicalities of the situation.

- The time available for training varies. You may find that you have only an afternoon, or several 'twilight' sessions. Whatever you plan needs to be realistic in the time available and also appropriate to the group's needs and previous experience. You can find out more about this in '*Steps in Running a Training Programme*' on the next page.

Here are some examples of how the pre-designed training sessions might be used:

- One pre-designed training session could be used (and adapted if necessary) for a morning or afternoon session.
- Two pre-designed training sessions could be used for a one-day training programme.
- A series of pre-designed training sessions could be used for twilight sessions
- A pre-designed training session could be used alongside another session specifically designed by you, using activities from the set provided and/or your own training activities.

We have also included advice on how to plan a training session. Some of the training activities have similar objectives, and you need to choose the ones you feel comfortable using and which will be appropriate for the stage the group is at (taking heed, for example, of how comfortable they are with one another, what they have done before, their energy levels at that time of day, the flow of content, and the need to vary methods used). You should feel free to adapt the activities as necessary.

The background resource (Chapter 4) and Factsheets (Chapter 5)
The training activities are linked to specific chapters of the *Growing Through Adolescence* Background Resource and Factsheets. These are intended to offer you useful background information. You may find that some chapters and Factsheets are also appropriate to give to participants.

Each section in the background resource has a Section Plan that links individual chapters to specific Factsheets and pre-designed sessions and activities.

The Health Promoting School
If you intend to design and facilitate your own training sessions, it is important to ensure the Health Promoting School approach underpins your sessions and that you allow participants ample opportunity to discuss and reflect on this approach. To find out more, see the section *Taking a Health Promoting School Approach* in the background resource.

Steps In Running A Training Programme

Planning And Preparing For Training

Identifying training needs
Training should begin, if possible, with a training needs analysis. The purpose of this is to collect as much relevant information as you can to help determine the real needs of participants. You can then use this to inform the content and delivery of the training.

In planning a training needs analysis, you may find it useful to consider some of the following:

- What method(s) will you use to identify training needs? It is important to choose a method that is convenient for those being asked for information. Examples are:
    ° A questionnaire, possibly with multiple choice options, in addition to open questions.
    ° A group meeting with relevant parties.
    ° A meeting with individuals.
    ° Telephone interviews.

- With whom do you need to consult? You may also want to find out what managers (and/or any other relevant people) think is needed, as their views of participants' needs may differ from the participants themselves. External factors such as government guidelines and policies may also affect training needs.

- Is it appropriate to consult every participant, or will a proportion suffice?

- Be clear about your objectives in doing an analysis. For example:
    ° To identify the training needs of participants in relation to (for example, eating disorders).
    ° To find out the extent of participants' knowledge about (healthy eating).
    ° To identify any organisational and curricular issues that may affect participants (organisational support/barriers they might encounter when putting training into practice).

Explain why you are collecting the information and provide any necessary background information. For example, if you use questionnaires, detail where and when to return them, who the information may be shared with (for example, with key people in the senior management team/relevant others) and, if it is shared, whether or not it will be anonymous.

If you discover organisational issues that will affect your training programme, then with whom will you discuss them?

Make people aware that you will design a training session (or sessions) that addresses as many needs as possible, but that not everything will necessarily be included.

- Questions you ask in a training needs analysis should reflect the nature of the information you need to gather. For example, you can ask questions:

- To elicit specific information
- To encourage participants to say what they feel
- To encourage participants to say what they think

Possible questions
Areas you might include in your set of questions are suggested below.

- What participants' objectives are and what they would like to achieve by attending the training session(s).

- What priority participants and other interested groups (for example, school management) attach to the needs they identify.   This will help you plan and design appropriate training sessions.

- Any previous training participants have received relating to the subject to be covered and/or their current level of knowledge.   It is likely to be useful to find out when this training took place and what was covered.

- How confident participants are in their knowledge/ability to teach about the subject.

- How much time they have for training.   This is likely to have an impact on the amount you can cover (asking them to prioritise their needs is useful when relating needs to training time available).

- What type of approach (interactive, participative) and processes they would welcome (for example case studies, group work, presentations).

- Any organisational issues that may affect the training.

- What participants' needs are in relation to facilities, venue, food, suitable times, interpreters and any other practical considerations.

- Any barriers participants may face.

- Any concerns they may have about the training sessions.

- An invitation to add any other comments or suggestions.

Working with other trainers-issues and questions for the trainer(s)
One of the first things to decide is whether or not the training would benefit from having two trainers.   Sometimes this is determined by practicalities, such as the amount of finance available.   The points below are written in the form of a checklist, to help you consider important aspects of co-training.   It is not intended to be exhaustive.   If you decide to work with someone else, you both need to set time aside in advance to discuss key points such as those below, and any other points you think are important. Sometimes you may have to argue the case for two people working together.

- Is it appropriate to co-train?   What are your reasons for co-training?   These might include:
  - The group is large.
  - One trainer is less experienced and needs support.

- The trainers are bringing different areas of expertise; for example, one may have particular knowledge about content, while the other is familiar with policies and organisational procedures.
- Someone to share the workload.
- another person to share opinions and perspectives.
- If emotions run high, you often need the support of someone else to help contain the emotions, to possibly work independently with someone outside the group, and to be able to discuss what happened after the training session.

- Are you aware of your own and each other's skills, strengths, and weaknesses on methods and content?   Do you want to stick with what you know and have done before, or are you prepared to take some risks, with support from the other trainer?

- Are you aware of anything in your own life experience that may trigger feelings for you around the subject matter concerned?   For example, if you have been through a difficult time with a close relative who has suffered from an eating disorder and this is the topic under discussion, it is advisable to let your colleague know so he or she can support you in this and, if necessary, let you take a 'back seat'.   The more you know one another before the training, the better.

- Talk through your individual roles and responsibilities.   Will one of you take a lead role throughout and, if so, what is the role of the other person?   Will you share the responsibility of leading and, if so, who will lead which activities?   What role will the other person play if he or she is not leading? Is it OK for him or her to add some points?
  - Ensure you work in a way which models good practice - encourage each other and be interested during your co-trainer's input sessions.
  - What support will you give each other?
  - How and when will you challenge, for example, each other and participants?
  - What degree of flexibility can and will you offer participants?
  - Any other issues you think are important.

Designing Training Sessions
The cycle of experiential learning
People learn from their experience, and generally learn new material in the context of existing knowledge and experience.   Having opportunities to discuss and reflect on past experience, draw conclusions and try out new ideas or put new learning into practice are important aspects to consider when designing training sessions.

The cycle of experiential learning was developed by Kolb (1984), who recognised the cyclical pattern which typifies how people learn.   Experiential learning is active rather than passive: the learner is directly involved in an event, then draws conclusions from it. Kolb's learning cycle, which involves four discrete but sequential steps, is illustrated on the following page in Figure1.

Figure 1. The Cycle of Experiential Learning
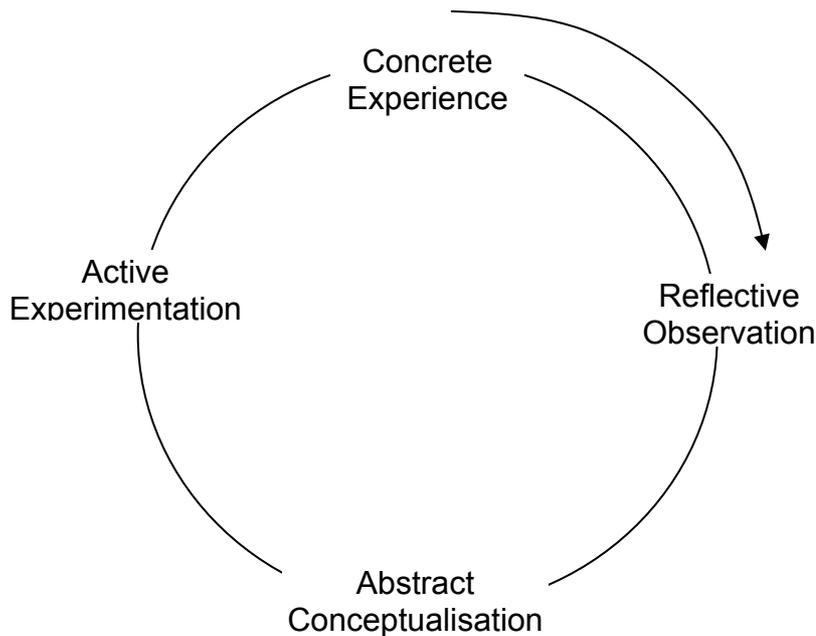
Concrete Experience:	experience of events in the real world.
Reflective Observation:	opportunities to reflect upon the experiences.
Abstract Conceptualisation:	drawing generalisations and conclusions from the reflection, and creating theories and models to explain them.
Active Experimentation:	testing out the insights and learning acquired.

Learning styles
It's also important to consider the different learning styles of training session participants. Honey and Mumford (1984) devised a questionnaire which outlines four learning styles:

- **Activists:** who learn from action and trying things out.
- **Pragmatists:** who learn by seeing the practical application and examples.
- **Reflectors:** who learn from thinking about things - they need time to think.
- **Theorists:** who learn from theories and concepts - they need structure and input.

The above categories are not rigid divisions and you are not likely to know the learning styles of your participants in advance of the training. However you can ensure that you have activities which accommodate all four styles. Research has shown that a predominance of **activists** and **pragmatists** attend courses, so leaning towards the practical and participative is likely to be most effective.

Training session design - a checklist
The points below are provided as a checklist of the main aspects of training session design. The list is not intended to be exhaustive.

- Ensure you are familiar with relevant policies, procedures and information that may affect training session design and group discussions, including:
  - The 5-14 curriculum.

- ○ Any relevant variations between upper primary and lower secondary schools (for example, approach, content, and how schools are structured).
- ○ The Health Promoting School approach, by studying the background resource.
- ○ Any other relevant information (such as healthy eating policies, anti-bullying policies, child protection guidelines and whole school policies).

- Analyse the findings of the training needs analysis (see *identifying training needs*, above) to decide on the objectives and the content of the training session(s). Consider having the objectives written down on flipchart paper or on a handout for participants.

- The training needs analysis may highlight that participants need more information than is provided in the chapters of the background resource. Be prepared to suggest sources of additional information or help to participants, such as websites, books and support groups. Each chapter in the background resource contains references and further reading.

- Set specific, relevant, achievable, and measurable objectives for activities (as these can easily be evaluated). Objectives normally relate to the skills and knowledge participants will gain and to attitudinal and behavioural changes.

- Some activities in this pack take similar approaches. In designing a training session, ensure there's a balance in the mix of activities and approaches you use. Have a mix of activities which take different learning styles into account (for example, activities (rather than lectures or presentations) for the activists in the group, discussions for reflectors, case studies for pragmatists, and handouts for theorists).

- Is it appropriate to set a pre-training session task? This may ensure that participants begin the training session from a common starting point or provide an opportunity for advance preparation (which, for example, might comprise reading, observing or trying something out). It is important to keep any advance task simple. Don't expect everyone to have actually done the work, and consider the impact of this in your decision about setting such a task. If you do set a task, make sure you build on it during the training session or people may feel they have put effort into something for nothing.

- When you design training sessions, it's important to build in time for introductions, ground rules, discussion about what can and will be covered in the time available, safety and administrative points and endings (see *delivering and facilitating training sessions* for further information).

- What's to be evaluated and what tool(s) are needed to do this (see *evaluation)*?

- Decide which ground rules you think are essential for the group to work effectively and safely. These might include:
- ○ Respecting each other's contributions (people may not agree with each other, and that's okay).
- ○ Maintaining confidentiality (explore what to keep confidential, and why).
- ○ Giving permission to opt out - but let the trainer know.
- ○ Being aware of language used, to avoid labelling or stereotyping.

- Other points to consider:
  - ° The ideal number of participants.
  - ° Although timings are suggested for pre-designed training sessions and for each activity, these are approximate. You may need to change them to suit your circumstances.
  - ° Make sure you have all the materials and equipment you need for each activity.
  - ° Factsheets can be used as handouts, as appropriate (you might also consider distributing relevant sections of the background resource).
  - ° Give careful consideration to a suitable venue (is there space for pairs/people to form groups? Is the venue accessible to everyone? Are refreshments available? Is it in someone's workplace, where they might be interrupted? Are participants likely to feel relaxed in the setting? Is the lighting, temperature and airflow conducive to the work being done? Can you arrange seating in an informal style?)

Delivering And Facilitating Training Sessions

A checklist of key points
This section outlines some of the main points to consider when delivering and facilitating training sessions.

Beginnings
- The most important issue at the beginning is helping people to feel at ease and that they can trust you and the process. They need to know what is going to be covered and how the group is going to work. They will also be checking out the facilitators and the other participants, to see if they can really fit in.

- It's important to allow enough time to set the scene and help people get to know one another. Ensure your training session opening includes:
  - ° Welcome.
  - ° Some background to the course. What you say will depend on the situation and what you think it is important to include. You may wish to thank participants for letting you know their training needs in advance and that these have helped form the training session objectives. It may also be appropriate to say, briefly, what it will *not* be possible to address and why; otherwise, some people may feel discounted and/or disappointed.
  - ° Clarification of the objectives for the training session and how these will be achieved. It helps to have the objectives written down for participants. Emphasise that the training is about teachers developing their knowledge and awareness, not about them approaching individual pupils they may have concerns about (if they are concerned about a pupil, they should follow their school referral procedures and guidelines, as appropriate).
  - ° A brief outline of the programme, so that people are clear about breaks and also about the link between objectives and content.
  - ° Introduction - you and your role.
  - ° Introductions - participants (If you wish you could use an icebreaker here - there are references to icebreakers at the end of these notes).

 º Health and safety (for example, fire drill) - cover any administration points later so that your focus at the start is on the training session and its content.

Ground rules
- Agree ground rules or a group contract at the start of the training session.   Ask for suggestions on ground rules and be clear about any you think should be included (see the suggestions in the *designing training sessions* section).   Record these on a flipchart sheet.   Check that everyone agrees with what is written and, if they do not, discuss this.   Suggest that these should be kept under review and can be amended (or new rules added) during the training session.

Middles
- When introducing an activity, describe the objective(s), explain what you are going to do and/or what you are inviting participants to do, and the logistics.   For example: time allocation, how it will be done (groups, pairs, discussion, using a handout and so forth) and where it will be done.   Consider putting the key briefing points on a chart or handout.

- In small group discussions, give participants time to get going but be prepared to spend time with a group if necessary (for example, you may need to encourage them to get beyond the surface level and share their experience, knowledge and opinions), then leave them to progress.

- The greatest asset in a training session is the participants themselves.   Make sure you acknowledge and make use of their skills, knowledge and experience throughout the training.   In plenary, following division into groups or pairs, ask them to share what has come from their discussions - their thoughts and their significance, their learning, how they can apply their learning, differences, feelings and so forth.   Depending on the time available, you may need to structure this quite carefully; for example, you may need to ask each group to feed back what they have learned and what they found difficult to reach agreement on.

- In group discussions and during activities:
  - º Be positive, keep the momentum going, build on what's been said and introduce other ideas when appropriate.
  - º Be clear about points you feel are important to highlight, if group members do not raise these.   For example research findings, ideas that are controversial or challenging, how something is relevant to both primary and secondary ages, and other points that may need to be addressed.
  - º Refer to key concepts, approaches and ideas as appropriate, particularly a whole school approach through the Health Promoting School, which should underpin your training session(s).
  - º Make links with information in the background resource chapters and the Factsheets to enable participants to be aware of new information and research.
  - º Be prepared for the likelihood of child protection issues being raised in specific sessions such as eating disorders or body image.   Each local authority will have child protection guidelines for schools.   It would be valuable if you can look at these in advance.

- Ensure you leave enough time for discussions so that participants can reflect on their current practice and what they might change or develop in the light of the

Health Promoting School approach.   You need to give careful consideration to appropriate plenary discussion questions to enable people to reflect in some depth on the implications for their practice.   They need time to consider how any issues raised relate to the curriculum, to school management, to relationships and to the broader life of the school.

- Be sensitive to the atmosphere and dynamics in the group.   If you ignore this, people may switch off or begin to be disruptive.   Be aware of people's involvement (or lack of it) and body language.   You can consult the group to find out what their thoughts and feelings are (they may need an early break, may be finding the content of an activity difficult to relate to, or may be bored because they are already familiar with the material).   The main thing is to constantly have your 'antennae' working, even when people are working in small groups!

- Some activities may touch on personal or sensitive issues.   For example, some participants may find listing their talents, skills and qualities too personal and threatening.   Others may not be happy to share their drawings, or may have had personal experience of eating disorders. It is often difficult to foresee what will seem threatening to people, and what will evoke difficult memories and feelings. As a general rule, avoid putting people on the spot, especially in the whole group. Participants may be happy to disclose information to someone they trust in the group, but may not want it shared publicly.   You need to remain sensitive to people's feelings to help them to feel safe, expressing their feelings or respecting their privacy as appropriate.

- Be aware of the potential for participants to experience strong emotions.   Consider what this might bring up for you and how you might deal with it.   This is one important reason for working with another facilitator (see *working with other trainers*, above, for further consideration).   If participants become angry, it is important not to get defensive, and to try to think what is behind the anger.

- Keep an eye on the ground rules throughout the training (see *ground rules*, above). They are only of value if they are used and referred to throughout.   Sometimes a participant will draw attention to a ground rule he or she thinks is being broken or needs to be changed, but sometimes it will be your responsibility.   For example, you may need to challenge inappropriate language.   If participants have a personal experience of some of the issues being discussed, they will be particularly sensitive to stereotyping and labelling.

- Be prepared for some 'storming.'   Once the group begins to feel more comfortable with one another, issues around' who has the power here?' will start to surface. You may feel the group is falling apart, but in fact it's just a natural stage of group development.   They are daring to have a voice! If you are being challenged, avoid getting defensive and acknowledge their opinions and feelings.   It's easier said than done, but do not try and squash the conflict - welcome it, and work with it!

- Recap an activity before moving on to the next.   Remind the group of the objective(s) of the activity and summarise the main learning points before moving on (it might be helpful to remind participants of the objective(s) during an activity if you find they have lost track or if a group has misunderstood their task).

- Review progress after an activity and/or at the end of the training session to check what people are feeling/thinking, clarify any misunderstandings, obtain feedback, give encouragement and build confidence.

- Be prepared to be flexible.   If the group is very interested in a particular issue, they may need more time.   You may decide to change the programme in response to a need that has been identified, or because emotions are running high.   If the energy in the group is low, you may need to introduce an energiser or some movement to lift the mood.

Endings
- As with the beginning, leave enough time to pull the training session together.   By doing this, you encourage participants to take time for reflection and to feel a real sense of closure.   Include the following points, as appropriate:
  - º Anything participants still want to raise.
  - º What participants have learned.
  - º Feedback from participants - let participants know what will be done   with this and, if they have completed feedback questionnaires, who will see them (see *Evaluation,* below).
  - º Completing a personal action plan (what they are going to do as a result of the training - the action, or steps, they need to take and a date by which they will complete each action point).
  - º Information about future training sessions or any other relevant points participants need to know before they leave.

Evaluation

General information

Evaluation is the process of measuring the effectiveness of a training programme against its objectives. The evaluation process comprises four stages: before, during and immediately after training, then evaluation after a period of weeks or months. More information about these stages is given below.

Before training

By assessing training needs in advance, you should be able to clarify the objectives of your training session(s)/activities. If you write clear objectives, you should find it easy to evaluate how well they have been achieved.

During training

You can ask for feedback from participants to find out their thoughts and feelings, to assess how things are going, and to find out what they are learning. There are different ways of obtaining such feedback: open feedback from group members, small group feedback (where no individual comments are attributed to an individual), or individual comments written down anonymously. Be prepared to act appropriately on this feedback. For example, you may need to adapt an activity or change the content as a result of the feedback.

Immediately after training

You can ask participants to evaluate the training sessions. This has its limitations, in that evaluation usually needs to be done after the real value of the training is processed by participants over a period of time. Immediate feedback can, however, provide you with information you need to know instantly. You may also consider it appropriate to ask for feedback if you are unlikely to be in contact with participants again.

Evaluation at a later date

Inform participants that you plan to evaluate the training at a date in the future (let them know when this is likely to be, if possible, as they can let you know if there are reasons why it should not be done at this time) and how it will be done (see *Evaluation tools*, below).

Here are some areas you might cover in evaluation after the training session(s), once participants have had time to put the training into practice:

- How participants rate the training session(s) overall in terms of usefulness.
- The extent to which participants think their objectives were met.
- Which activities/parts of the training they found most useful, and why.
- Which activities/parts of the training they found least useful, and why.
- What participants have gained, from a professional point of view.
- How the training has helped their practice.
- To what extent their knowledge and/or skills and/or confidence increased as a result of the training session(s).
- What action they have taken as a result of the training session(s).
- What action they are still intending to take.
- What else could have been included.
- What they think the school has gained by their taking part in the training.

- What discussions they have had, if any, with their colleagues and managers in relation to the training.
- What support is needed now, if any.
- How the training session(s) could be improved for other participants.
- The contribution of the trainers - how useful/helpful/effective/ineffective it was, and why.
- Opinion of the venue and domestic arrangements.
- Any other (related) areas they would like to cover in future.
- Any other comments or suggestions they would like to make.

It may be useful to have a post-training discussion with other relevant people such as members of the senior management team, the Health Promoting School co-ordinator and key local partners to share results of the evaluation. This is likely to have been agreed at the start of the training programme. If you intend to share information provided by participants, make sure they know this is your intention and reassure them that individuals will remain anonymous.

It's important to review and evaluate the training session yourself (and with any other trainers involved) using the objectives you set for yourself and for participants (see *training session design - a checklist*, above). Set aside time to do this when the session is still fresh in your memory, and allow time to make any necessary changes to a revised and updated training session for use in the future, if appropriate.

Evaluation tools
You can use different tools, as appropriate. These include:

- Questionnaires - if distributing a questionnaire, it should ideally include room for open-ended feedback as well as tick boxes and number ratings.
- 'Post-it' notes stuck onto flipcharts under specific headings (the best thing about 'X'; the worst thing about 'Y').
- Oral feedback from those willing to share.
- A 'continuum' on a wall on which participants can be encouraged to write their thoughts and feelings.
- Structured meetings.
- One-to-one interviews and discussions.

References And Further Reading

Bourner, T., Martin, V., Race, P. (1993) *Workshops That Work.* New York: McGraw-Hill Training Series.
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Honey, P., Mumford, A. (1984) *The Manual of Learning Styles*. London: Peter Honey.
Kolb, D. (1984). *Experiential Learning: experience as the source of learning and development.* New Jersey: Prentice-Hall.
Willis, L., Daisley, J. (1980) *Developing Women Through Training: a practical handbook.* New York: McGraw-Hill Training Series.
West, Edie (1996) *201 Icebreakers: Group Mixers, Warm-ups, Energizers and Playful Activities, MacGraw Hill Education*

Chapter two:
Pre-designed training sessions

Chapter 2

Pre-designed Training Sessions

This chapter consists of five training sessions of approximately three hours duration each.   They are selected for situations where there is only a limited time available for training.   The chapter is cross-referenced with the longer menu of activities provided in chapter 3.   It aims to develop teachers' knowledge and skills on the complex issues of healthy eating for young people as they develop through puberty and adolescence.

Introduction To Pre-Designed Training Sessions

These five training sessions are of approximately three hours duration each.

They are provided for trainers who have limited time available for training opportunities and offer suggested selections and cross-referencing to the large menu of training activities offered in Chapter 3.   They are grouped in five themes and can be selected in different orders although it would be useful to start with the 'Healthy eating through a health promoting school' theme as an underpinning concept within this approach.

Healthy Eating Through a health promoting school

Aims Of The Session

- To explore what we mean by a health promoting school.

- To discuss the link between self-esteem and healthy eating.

- To identify specific strategies to promote healthy eating and self-esteem in a health promoting school.

Taking A Health Promoting Schools Approach

- To promote the physical, social, spiritual, mental and emotional health and well-being of all pupils and staff.

- To work with others in identifying and meeting the health needs of the whole school and its wider community.

Key Points From Chapter 4, Section 3.1: Self-Esteem
• Self-esteem is a composite concept, rather than a single entity. • A sense of security and trust in the world and in other people is one of the most essential building blocks for self-esteem from infancy onwards. • School is one of the most important environments for influencing self-esteem in young people and children. • Using sensitive and positive approaches within the classroom and in the general life of the school, it is possible for teachers to promote students' self-esteem.

Activity In Chapter 3	Timing	Notes On Activity
Outline the aims of the session as above	5 minutes	
Identifying wants in pairs	15 minutes	As this workshop aims to help people to identify practical strategies, it needs to take into account their concerns and starting points. Ask them to work in pairs to share what they specifically want from the session. Clarify those that are realistic and those that are not. Be prepared to be flexible with your programme.
Activity 9: Where do you stand?	20 minutes	If you want to save time, just choose one or two statements. The activity, however brief, is useful for getting people talking.
Activity 10: What factors affect Healthy Eating?	30 minutes	
Remixing the groups and reminding them of people's names	5 minutes	Ask them to stand in a line again, but this time according to alphabetical order of first name. Ask them to each repeat their name in order. Divide them into groups of five by dividing the line - first five in one group, the second five in another etc.
Activity 11: Features of a health promoting school	40 minutes	Sitting in the groups formed by the preceding activity.
Activity 15: Finding out what children think and feel	30 minutes	
Evaluation	5 minutes	Ask them one last time to stand on a line 'completely…not at all', in response to the question 'to what extent have your wants been met?' Invite comments to explain their position.

What is Healthy Eating?

Aims Of The Workshop

To discuss the role food plays in our lives.
To clarify what we mean by healthy eating.
To explore what lies behind some changing food patterns and preferences.
To discuss what schools should be doing to encourage young people to eat healthily.

Key Points To Get Across From Chapter 4 Section 1.1 Food For Growth

- The amount of energy taken in through food and drinks should be equal to the amount of energy 'burnt off' (expended) in physical activity and body function.

- Energy (kilocalorie) needs increase during adolescence and peak in the mid to late teenage years, before reducing again in adulthood.

- Food satisfies our physical hunger, but also meets strong psychological, sensory and social needs.

- Promoting balanced eating is important at any time of life, but is particularly vital during childhood when habits for life are being established.

- Young people should be encouraged to drink adequate amounts of fluids.

Key Points To Get Across From Chapter 4 Section 2.1 Food Patterns And Preferences

- In general, the dietary patterns of Scottish schoolchildren are less healthy than that of many of their European counterparts.

- Children who were breastfed as infants experience significant health benefits in childhood.

- Studies show that children who eat meals with their families consume more fruit and vegetables, drink fewer fizzy drinks and eat less fat.

- There is evidence that some children in Scotland - perhaps as many as 20 per cent of 11-15 year-olds and many below that age group - are regularly missing breakfast.

- To foster a balanced diet, and one which is *enjoyed*, parents of young children should be urged to offer a wide range of foods with encouragement for the child to sample them.

- Scotland's oral health is poor in comparison with other areas of the UK, with high consumption of sugary snacks and fizzy drinks implicated in the incidence of dental caries.

Suggested Programme

Activity In Chapter 3	Timing	Notes On Activity
Outline the aims of the session as above	5 minutes	
Activity 2: Food association OR Activity 3: An enjoyable meal	15 minutes	
Form groups of four	5 minutes	You need to have prepared cards with drawings of different ingredients from a salad (eg a lettuce, cucumber, tomato, onion) or from a well known Scottish dish - 4 cards of each ingredient. Give a card to each person and ask them to find the other people with the same drawing
Activity 4: What will you have?	30 minutes	
Forming different groups	5 minutes	Mix the groups by asking them to form a salad (or Scottish dish). They should find three different ingredients (besides their own) to make a new group of four.
Activity 6: That's me!	30 minutes	
Activity 7: Trends in food patterns	30 minutes	
Activity 8: What information do children need?	20 minutes	
A round of 'I like to eat…(name something)...because…'	10 minutes	Stress that food is enjoyable and fun. It not only satisfies hunger but also meets emotional and social needs

Healthy Eating and Physical Activity

Aims Of The Session

To reinforce the importance between food intake and physical activity in our lives.
To discuss the trends in young people's participation in physical activity and the reasons that might be behind these trends.
To identify what schools could do to encourage children to be physically active.

Key Points From Chapter 4 Section 1.2: Physical Activity
• Physical activity is not all about exercise and PE - a more ecological view places physical activity as an integral part of our lives.   Children should be encouraged to recognise the value of broader lifestyle activities, in addition to valuing more formal sports, dance and physical activities. • Children and young people should accumulate *at least* one hour of moderate physical activity most days of the week. • The challenge for teachers and parents is to maintain and develop children's early enthusiasm for being active. • Activities that are chosen and enjoyed are more likely to result in continued participation than those that are enforced. • Although physical activity levels among 11-15 year olds in Scotland are moving in a positive direction, overall they remain low. • Physical activity has beneficial effects on emotional well-being and self-esteem.

Suggested Programme

Activity In Chapter 3	Timing	Adaptation To Activity
Outline the aims of the session	5 minutes	
Activity 17: musical sheets or changing positions on a line	10 minutes	If you have no music available, put a piece of string along the floor - secured at each end. Ask them to position themselves along the string according to alphabetical order of first name. They are to imagine the string is a rope bridge over a river full of crocodiles. They must always keep one foot on the string. Ask them to change places according to the colour of their eyes - light blue at one end and dark brown at the other.
Forming groups of 6	7 minutes	If you used the continuum activity above, work out how many groups of six can be made. Give each

		person a different letter to signify the different groups. For example if there are to be three groups, go along the line in order labelling people A, B or C. A's form one group, B's another etc. If you used the musical sheets activity, choose three people to be sculptors and ask them in turn to pick 5 other people to be in their 'team.' Process by asking whether this reminded them of being chosen for teams in PE and how it felt.
Activity 18: Statues of balance	20 minutes	
Activity 20: Keeping in Balance	10 minutes	
Activity 21: Listing physical activities	15 minutes	
Ask them to form 2 groups (or 4 if there are more than 12 people in total)	8 minutes	Invite them to try and find something in common. Once they have managed, ask how it feels to know that they have something in common. How important is it to feel that you fit into a group and how does this affect young people where physical activity is concerned?
Activity ?: Physical activity case study	30 minutes	
Activity ?: What do I think?	40 minutes	
Closing exercise - balancing on one anothers knees	5 minutes	Stand in a circle, standing sideways (ie with each person directly behind the one in front). Get as close as you can. At a given signal all sit down on the knees of the person behind you - a balanced group!!

Adjusting to Puberty

Aims of the session

To clarify some of the attitudes held towards puberty.

To consider how body images and stereotypes about men and women form at an early age.

To examine the effects of being different or perceiving yourself as different.

To identify the factors that can help or hinder the process of adjusting to change.

To identify the key role that the school can play in helping young people to feel good about themselves and their bodies as they progress through puberty.

Key Points From Chapter 4 Section 1.3: Adjusting To Puberty

- Puberty is not a purely physical transition, but also has important social, emotional and cognitive aspects.

- The age-range for development of puberty is wide, with great variety in the sequence and tempo of developmental changes and huge variation in resulting body shapes and sizes.

- The development of primary and secondary sexual characteristics and hormonally influenced moods and feelings can lead to a range of emotional reactions in girls and boys, including pride and embarrassment.

- Puberty and associated bodily changes result in a wide range of changes in people's reactions to the young person and in their relationships and popularity with peers.

- For most age groups, the social context fits the majority of 'on-time' pubertal developers best. Consequently, those who are 'off-time' may experience more risk of difficulties.

- Providing effective support, advice and education on puberty is an essential challenge for health education.

Key Points In Chapter 4 Section 3.2; Body Image

- Body image is a complicated concept influenced by many psychological, emotional and social factors.

- Research over recent years has shown that children and young people have developed increasingly negative body images.

- Young people's sense of body image is not fixed, but fluctuates due to the influence of a wide range of factors, self-esteem in particular.

- Negative body image can lead to the development of unnecessary and potentially harmful behaviours, such as dieting or eating disorders.

- Schools can inadvertently encourage negative body image notions through seemingly benign policies and interventions – school dress codes, for instance.

- Children and young people with negative body image may be uncomfortable about using communal changing facilities, dressing in sports kit and participating in active sports.

Suggested Programme

Activity In Chapter 3	Timing	Notes On Activity
Outline the aims of the session as above.	5 minutes	
Activity 31: 'Puberty' brainstorm	15 minutes	
Jigsaws to get into groups	5 minutes	Find photographs from magazines of young people. You will need the same number of photos as you want groups. Make these into jigsaws, so that you have one piece of jigsaw for each participant. Mix up the pieces and give them out. Ask participants to find the other people to complete their jigsaw.
Activity 26: Messages about bodies	30 minutes	
Activity 27: Mind's Eye	20 minutes	
Different shapes to form groups of four	5 minutes	Prepare cards with different shapes- squares, circles, triangles etc. Ask them to find people holding the same shape to form groups.
Activity 32: Being different	30 minutes	
Activity 34: What help can be given?	30 minutes	
A round of 'one thing I have learnt'	10 minutes	It might also be worth encouraging discussion on how they might use what they have learnt in the classroom.

Dieting: From One Extreme To Another?

Aims Of Session

To increase understanding of the issues and pressures on young people to diet.
To look at discrimination related to overweight children.
To explore how schools can approach the issues of being overweight and of dieting.

Key points from Chapter 4, section 2.3: Dieting

- There has been a significant increase in recent years in the proportion of fifteen year-old girls and boys who report having been on a diet to lose weight.

- Significantly more teenagers choose to diet than there are teenagers who meet the criteria for obesity or who are even overweight.

- The age at which dieting becomes common continues to fall, with reports of children as young as 5-7 years restricting their food intake.

- The pressure that idealises a thin shape for girls and a broad muscular shape for boys starts early and continues to be reinforced through the media.

- The triggers for dieting are likely to be concerns about appearance and associated changes in body shape that accompany puberty, particularly for girls.

- Weight is lost successfully through small changes in eating patterns instigated over long periods of time.   Most of the people who lose weight in dieting will regain most of the pounds they have lost, leading to further attempts at weight loss.

Key Points From Chapter 4, Section 2.2: Overweight And Obesity

- Recent research has shown that the prevalence of obesity among children and young people in Scotland is well above the expected level.

- Social deprivation is associated with high levels of obesity in Scotland.

- By far the most common cause of obesity is the combination of reduced physical activity and increased kilocalorie intake; of the two, reduced physical activity appears to be the more significant.

- Being overweight or obese has significant social and psychological consequences.

- The mainstay of management is to increase the child's activity levels and review his or her eating patterns and behaviours.

- Even modest kilocalorie reductions can make a significant impact on weight - a 100kcal deficit per day can lead to a 10 lb (4.5kg) weight loss over a year.

Suggested Programme

Activity In Chapter 3	Timing	Notes On Activity
Outline the aims of the session as above and suggest ground rules for the session	5 minutes	Remind the group that many of them are likely to have experiences of feeling they are overweight or/and of dieting either through people they know or personally. We all need to be sensitive in the language we use and in not putting people 'on the spot'.
Activity 41: All change	10 minutes	
Activity 43: Diet fads and fictions	30 minutes	
Forming groups of three	15 minutes	Have on display a selection of photos of different people, of differing ages and both genders. Ask them to choose a photo that appeals to them. Ask them to form groups of three, either all with the same photo or with different photos. Invite them to share what it was about that particular photograph that attracted them. To what extent was it the attractiveness of the person and if so, what makes someone attractive? Ask each trio to stay together and to choose one of their photos for the next exercise.
Activity 44: The reasons for dieting	30 minutes	
Activity 30: What it means to be overweight	45 minutes	

Evaluation of the session.	15 minutes	Allow time at the end for people to offload any feelings. Invite them to imagine a line across the room, with a continuum from 'a lot' to 'not at all.' Ask them to stand at the place which fits for them concerning various statements. After they have chosen their position, ask if someone would be willing to say why they are standing there. Continue until you have a flavour of their responses. Statements might be:
		    'I have food for thought,'
		    'I feel satisfied,'
		    'I am still hungry for knowledge,'
		    'I feel more confident'.

Chapter three:
Training session activities

Chapter 3

Training Session Activities

This chapter provides a large 'menu' of training activities from which trainers will be able to select the most appropriate activities to meet the needs of different groups of teachers. The training activities are grouped in themes which are cross-referenced to the relevant parts of chapter 4, the background resource and chapter 5, the Factsheets.

Activity 1

Draw A Healthy Person

Objectives   To stimulate discussion on how participants see health.

Resources   Sheets of paper, crayons.

Time   15 minutes

Methods
1. Ask the group, without prior discussion, to draw a picture of a healthy person, conveying all they can about being and staying healthy.   Allow no more than 2 minutes.

2. Invite them to share their picture with the group, introducing themselves as they do so.   As they share, ask them to notice both common and unusual views of being healthy

3. Encourage a discussion by asking them:

    *   How many people drew a smiling face or outstretched arms?   Explain that worldwide, the pictures of healthy people drawn by children aged 3-12 almost always show a person smiling, often with outstretched arms.   This shows their view that being healthy is strongly linked with emotional wellbeing.

    *   What were common and unusual features - people exercising, relaxing, other people in the picture, aspects of healthy eating?

    *   Whether anyone has included an older person, someone in a wheelchair, or wearing spectacles?

    *   Whether there is a stereotype trap in depicting health in this way?

4. Mention that this strategy has been in used in several European countries in the last decade.   During recent years, an unexpected trend has been observed in children's drawings of women.   Children have always used certain conventions for drawing women, moving through the head as body, to the triangular figure with legs attached to the skirt, to the traditional figure with the indented waist.   However, in recent years, the female figure has increasingly been drawn as very tall, straight, very thin and shapeless.   At first, this phenomenon was noticed in the drawings done by girls in the 10-11 years age group.   More recently, it has become apparent down the age range and is now appearing regularly in the drawings of seven year-old girls.

    A similar but less dramatic change has appeared in boys' drawings of healthy males.   There is great emphasis on a muscular upper body and descriptive phrases such as 'six pack' are increasingly used.   This phenomenon is coming down the age range quite rapidly.

Training Issues

Teachers may already be familiar with this approach.   It may be worth checking to see if they have used it and what kinds of pictures their children produced.

Teachers of older year groups who are aware that this is a more common approach in primary or elementary schools may think this is introducing an activity to do in class, rather than to explore their own concepts.

Linking with Chapter 4 - The Background Resource
Taking a Health Promoting School Approach
As this can open discussion on almost any subject, it can be linked to any section.   For example, it can lead to discussions on:
The balance between physical activity and well-being (Section 1.2)
Diets and obesity (Section 2.2 and 2.3)
Body image (Section 3.2)

Linking with Chapter 5 Factsheets
Again, this is a good opening activity for opening discussion including:
Current eating patterns among European children and adolescents (Factsheet 1)
Dietary targets and activity guidelines for young people (Factsheet 2)
Energy balance (Factsheet 3).

Activity 2

Food Association

Objectives   To open discussion about food

Resources   Paper and pens.
                   Flipchart paper.

Time   15 minutes

Methods
1. Ask them to think of some type of food - the first thing that comes into their heads - and to write it down in large letters on a piece of paper.

2. Go round the group one at a time. Ask each person to show what is on their piece of paper to the person on their right. This person should then say what the food is and call out a word they associate with that food. As they call out the words, write them on a flipchart sheet. Repeat the process until everyone has shown their food and also said a word association.

3. In plenary, consider the types of words they have called out. How many:

   - Are simple descriptions (eg crunchy, soggy, green)?
   - Are qualitative (eg tasty, healthy,)?
   - Are associated with a place or time (eg holidays, school dinners, Sundays, supper)?
   - Fit into another category?

   Encourage a short discussion on:
   - What these words tell us about the place of food in our lives. Are the words mainly positive or negative, objective or subjective?
   - What they think children and young people would write if they were doing this exercise.
   - Whether they think there would be any differences between their own responses and those that young people might give.
   - Why this might be.

Training Issues
This is intended as an icebreaker and as such should not take too long.

Activity 3

An Enjoyable Meal

Objectives   To open discussion on the role food plays in our lives.

Resources   Flip chart paper or board.

Time   10 minutes

Methods
1. Ask the participants to share with another person a memory of a pleasurable meal and to say what made it so.

2. Come together to share perceptions.   To what extent was the quality of the food responsible for making the meal so enjoyable, or were other factors just as significant, such as the company, the setting or the occasion.   You might want to record these factors on a flip chart or board for later reference.

Training Issues
This is an introductory activity for a workshop and should only take a few minutes.

Linking with Chapter 4 The Background Resource
Food patterns and preferences (Section 2.1).
Dieting (Section 2.3).

Activity 4

What Will You Have?

Objectives To explore some of the reasons behind our and young people's choices of food
To increase awareness of the recommended energy (kcals per day) for different age groups.

Resources A range of menus, available from the Internet.
Flipchart paper and pens.
Food for Growth (Chapter 4, Section1.1) or Chapter 5, Factsheet 1 or 2 for each participant.

Time 30 minutes

Methods
1. Ask participants to work in groups of four and give each group a choice of menus from different restaurants.   They are to imagine that as a group they are going out for a meal on a Friday evening.   They are to first choose a restaurant menu, and then each select a meal from that menu.   What would they choose and why?   Ask them to jot down the reasons for their selection - of restaurant and of food.   Who in their group do they think has chosen the healthiest option?

2. Ask for feedback from the group on what they chose and the reasons.   List the reasons on central flipchart and see if they can be grouped in any way.   These might include:

    *   Cost.
    *   Who we are with.
    *   Personal preferences of taste.
    *   Time of day.
    *   Purpose of the meal.
    *   What is happening afterwards.
    *   What else they have eaten during the day/week.
    *   Their emotional state.
    *   Allergies.
    *   Diet restrictions.

3. Possible questions for discussion could be:

    *   To what extent would they take into account whether their food choices are the healthy option?
    *   To what extent would they consider the calories in different food choices?
    *   How different would the list be if they were looking at food choices at home?
    *   How different might the list be if children/young people were asked to choose a meal?

Give each person a copy of Chapter 4, Section 1.1, Food for Growth, for further reading. Draw their attention to Box 1 which gives the recommended kcal per day for different age groups.

Training Issues

It is important to stress that food is enjoyable, and food is fun.   It satisfies our physical hunger and physiological needs, but also meets strong psychological, sensory and social needs.

We should therefore aim to help young people value food and understand how important it is to us not only in a physical sense, but also socially and psychologically.   From this may grow a respect for food and eating, which will help them to make better health-related choices.

Linking with Chapter 4

Food for Growth (Section 1.1).

Linking with Chapter 5

Factsheet 1

Dietary targets and activity guidelines for young people (Factsheet 2).

Activity 5

Food Is For/I Eat Because…

Objectives   To reinforce the importance of a balanced approach to eating and food for healthy growth and development.
To recognise and understand the importance of well-being in achieving a balance.

Resources   A4 Paper and pens.
Flipchart paper and markers.
A copy of Chapter 4 Section 1.1, Food for growth for each participant.

Time   45 minutes

Methods

1. Give each participant a blank sheet of paper an ask them to draw two columns, headed 'I eat because…' and 'Food is for…'

2. Ask them to list as many responses as possible in each column.

3. When they have finished ask them to review their responses, comparing each column and highlighting any responses that appear in both columns, for example 'I eat because I enjoy food', and 'Food is for enjoyment', and 'I eat because food gives me energy', and 'Food is for energy to do physical work').

4. Share their responses in pairs, discussing:

   - What responses they have in common?
   - Which of their responses have not been listed by their partner?
   - Whether they think these different responses are valid or appropriate?

5. Ask the pairs to form a group of four.   Give each group a sheet of flip-chart paper and some pens.   Ask them to identify ways of categorising their responses.   They should divide the flipchart sheet into columns with a category heading at the top of each.

6. Ask them to list under these headings some of their responses that they feel would fall into this category (up to three will suffice).   For example, if their responses suggest that one type of need that eating fulfils is SOCIAL, they should write this at the top of one of the columns and place under it up to three responses such as 'Food is for celebrations' or 'I eat because it provides an opportunity for social interaction'.

7. Back in the whole group, invite them to feedback the outcomes of this exercise. Discuss:

   - What categories were identified by the small groups?
   - Were these more or less similar for each group?

- What does this suggest about the role of eating and food in our lives? Is there a single reason for eating, or a single purpose for food? If not, is any reason or purpose more important than the others?
- What responses do they think children would give?
- What should we be aiming to teach children about eating and food in relation to healthy growth and development?

8. Give out Section 1.1, Food for Growth, drawing their attention to the section on 'balanced eating' and why it is particularly important to promote this during childhood.

Training Issues

The same as in Activity 4, What Will You Have? - It is important to stress that food is enjoyable, and food is fun. It satisfies our physical hunger and physiological needs, but also meets strong psychological, sensory and social needs.

We should therefore aim to help young people value food and understand how important it is not only in a physical sense, but also socially and psychologically. From this may grow a respect for, and an enjoyment of, food and eating, which will help them to make better health-related choices.

It may be useful to have undertaken the tasks involved in this workshop beforehand so you have a ready list of responses that can be given as examples should some participants find it difficult to come up with many of their own.

Linking with Chapter 4
Food for growth (Section 1.1).
Food patterns and preferences (Section 2.1).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).
Dietary targets and activity guidelines for young people (Factsheet 2).
Energy balance (Factsheet 3).

Activity 6

That's Me!

Objectives   To help teachers reflect on these changing patterns to eating and apply it more broadly to changing society and new information.

Resources   A copy of 'That's Me' handout for each participant.

Time   20 minutes

Methods
1. Ask participants to work through the handout 'That's Me,' sharing experiences which make them say, "That's happened to me", or "I worry about this".

2. Come together to summarise this exchange of views and to ask whether children are in danger of losing something of the pleasurable social experiences of eating.

3. Ask the group to consider what they could do, as a group and individually, to bring about some changes.

Linking with Chapter 4
Food patterns and preferences (Chapter 4, Section 2.1).
The role of the media (Chapter 4 Section 3.3).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).

That's me!

Who recently has…

- Seen a young person do something which made you suspect he or she had skipped breakfast?   What were those behaviours?

- Tried to persuade a child to try a new food successfully?

- Tried to persuade a child to try a new food but without the desired effect?

- Given in to pressure from a child to buy a certain food or eat in a certain food outlet?

- Worried about the experience children and young people have of school meals, for example how the meals are organised, what they eat or don't eat, the noise levels, the time allocation?

- Felt that getting out to play or not having to go out is a factor in how children eat at school meals?

- Worried about healthy eating programmes and resources which speak of foods as 'good' and 'bad'?

- Worried about the impact of advertising on TV on children's food preferences?

- Worried about the experiences young people get at school from the sale of foods and drinks?

- Recognised changing fashions in food preferences and eating patterns in children and young people as an important factor in our approach to healthy eating programmes?

Activity 7

Trends In Food Patterns

Objectives   To explore what lies behind some changing food patterns and preferences. To consider how this relates to children and young people and their experiences in school.

Resources   3 slips of paper for each participant.
A copy of some key points from Chapter 4, Section 2.1, Food patterns and preferences.
A copy of 'Possible reasons' for each participant.

Time   30 minutes

Methods
1. Ask participants to move into groups of 4.   Give each group a copy of some key points from Section 2.1, Food patterns and preferences.   Are they surprised by any of the points made?

2. Invite them each to write on three slips of paper what appears to them to be the three main reasons for the changing pattern of children's food preferences and eating patterns.   There is a list of examples of possible reasons to help if they get stuck

3. They should then share and sort their reasons.   Ask them to arrange and display them to show their group's view of their importance.

4. Raise the following questions:

   - Which of the reasons given are within their power to influence in some way?
   - What could they do, as a group and individually, to bring about some changes?
   - Who would be key players in making these changes?
   - Is the task to change people's behaviour and attitudes, or is it to accept that food preferences and eating patterns are changing and to work with people within that framework?
   - How does the provision of food in schools reflect this?
   - Which task should healthy eating programmes for schools focus on?

Linking with Chapter 4
Food patterns and preferences (Section 2.1).
The role of the media (Section 3.3).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).
Food initiatives in schools (Factsheet 4).
There are also factsheets linking to the key points if participants want to know more (eg dental and oral health).

Possible Reasons For Changing Patterns Of Children's Food Preferences And Eating Patterns

- Changing family lifestyles, for example both parents working, shift working - resulting in families not eating together, children not eating breakfasts.

- The impact of processed and convenience foods.

- The impact of TV on children's leisure time and of advertisements shown at their viewing times.

- Healthy eating programmes for schools which start from what is considered necessary for children to learn and not from where children are.

- The lack of sufficient links between physical activity, healthy eating and a sense of balance between the two.

- The inconsistency between the school's commitment to being health promoting, and the practices in the school relating to provision of food, drink and exercise.

- The current fashion in what is presented as an ideal body image for girls and boys.

- Celebrity diets and dietary advice.

- Less knowledge about healthy food and how to prepare it.

- The marketing and packaging of foods as, for instance, 'natural' (or 'low fat' but still high in sugar - or still high in fat but only lower in fat in relation to other products - eg biscuits) and an assumption that this means it is healthy.

- Marketing foods with prizes or toys to young children.

- Food being used or seen as a punishment or a reward.

Activity 8
What Information Do Children Need?

Objectives To identify the information that young people may need to know about healthy eating.
To look at imaginative ways of getting that information across to them.

Resources For each participant a copy of:
Chapter 4, Section1.1, Food for Growth.
Chapter 5.
Factsheet 2, Dietary targets and activity guidelines for young people.
Factsheet 3, Energy balance.
Factsheet 7, Water.
Factsheet 8, The Media.

Time 30 minutes

Methods
1. Ask participants to work in groups of four and give each group a different resource material. Allocate different ages to each group, from 7 to 18.

2. Explain that their task is to read their particular resource to see whether there is any information in it that they think would be useful for their allocated age group. Can they think of any imaginative ways of imparting that information that would be appropriate for that age group?

3. In the whole group, ask for feedback about the information and the methods chosen. Discuss:

   - How you decide what children need to know.
   - How easy or difficult they found the task.
   - Whether the children themselves can be involved in finding out the information and imparting it to others.
   - Whether there is important information that is not included in the resource material they were given.
   - What place informing young people should play in any initiative about healthy eating. How important is it?
   - What else schools should be doing.

Training Issues
Stress that promoting balanced eating is particularly vital during childhood when habits for life are being established.

Make sure that they appreciate that a Whole School Approach is needed - for example looking at the school environment and working with parents, rather than just 'teaching the facts'.

Linking with Chapter 4
Food for Growth (Section 1.1).

Linking with Chapter 5
Dietary targets and activity guidelines for young people (Factsheet 2).
Energy balance (Factsheet 3).
Water (Factsheet 7).

Activity 9

Where Do You Stand?

Objectives   To explore views on schools promoting healthy eating.
To help participants express their opinions and literally 'see where they stand' on issues in relation to other people.

Resources   A clear space, the length or width of the room.
Five large pieces of paper, with YES!, yes, ?, no and NO!   Arrange them across the floor in a line.
Statements written on flipchart paper (and covered until they are used). See examples below.

Time   20 minutes (less if only one or two statements are used).

Methods
1. Ask participants to imagine there is an imaginary line that runs across the room. On it are five positions.   Where they place themselves on this line will show where they stand on an issue:

   - 'YES!' if they definitely agree with a statement.
   - 'Yes' if they agree, but with a few reservations.
   - '?' if they are not sure.
   - 'No' if they disagree with reservations.
   - 'NO!'   if they strongly disagree.

2. Choose a statement about 'Schools promoting healthy eating' that you think will create a range of responses from group members.   Examples might be:

   - Parents have such a strong influence on children's eating that there is not much a school can do to change things.
   - Schools are about education not healthy eating.
   - Teachers have so many administrative pressures on top of teaching that they have no time to worry about what else is going on for a pupil.
   - The main way a school can promote healthy eating is through a specific education programme on nutrition.

3. Ask them to stand by the piece of paper which most represents their view.

4. Ask them to discuss with somebody near them why they are standing at that point. Encourage them to really listen to one another, as two people may be standing on the same point for different reasons.

5. Ask them to pair with someone at a different point on the line, to again discuss the reasons for their choice.   You could then ask if anyone at different points on the line is willing to voice his or her opinions to the whole group.

6. Repeat steps 3 to 5 with the next statement.

7. Finally ask them to go back to their seats and encourage discussion in the whole group:

   - Could we find any points of agreement, even when we were at different places?
   - What were the main issues of disagreement?
   - What have we learned of our views about schools and promoting healthy eating?
   - Could we use this activity with our students, with different content areas?   If so, in what circumstances?

8. You could give out the chapter on Taking a Health Promoting School Approach for further reading.

Training Issues

Be prepared for participants to ask you where you stand on various statements.   They may want to know if there is a right answer and will need assurance to know that it is OK to have a range of views.

Activity 10

What Factors Affect Healthy Eating?

Objectives To explore what factors affect healthy eating at different ages.
To identify what a person needs to know, to feel and to be able to do to cope with these factors.

Resources Photographs of children and young people at different ages.
Flipchart paper.
Marker pens.
Blutack.

Time 30 minutes

Methods
1. Ask participants to work in groups of four or five.   Give each group a sheet of flipchart, a different photograph and some blutack.   Ask them to blutack their photograph on to the centre of the sheet.

2. Invite them to write around the photo what factors are likely to affect the eating pattern of that child.

3. Give them a second sheet of paper, and ask them, bearing in mind the factors they have identified, to write down what that child, in order to eat healthily, would need:

   - To know.
   - To be able to do.
   - To feel…

4. When they have finished, ask them to display their flipchart sheets and look at other groups' work.

5. In plenary, ask them to share:

   - Whether they have any queries about what other groups have written.
   - What are the common features of the sheets.
   - Whether there are differences related to gender or age.
   - Whether they would like to add anything to their own sheets now that they have seen other people's.
   - How this can help us plan promoting healthy eating in schools.

6. Make the point that a school can have an important effect on factors such as self-esteem or how a young person feels about their body.   We need to look at the whole context of a health promoting school, rather than just thinking about what is taught in the classroom.

Linking with Chapter 4
Taking a Health Promoting School Approach (Chapter 4, introduction)
Self-esteem (Chapter 4, Section 3.1)

Activity 11

Features Of A Health Promoting School

Objectives   To identify the features of a health promoting school that are relevant for encouraging healthy eating.
To increase awareness that an approach to healthy eating means more than just teaching the facts.

Resources   A copy of the criteria/principles for the health promoting school from the conference at Thessaloniki 1997. These were re-published in *The ENHPS: the alliance of education and health,(1999)* by WHO Euro in Copenhagen. An extract is reproduced on the following page (see criteria/principles for the health promoting school).
Flipchart paper and marker pens.

Time   40 minutes

Methods
1. Emphasise that the health promoting school is not just about what is taught about health but also about how a school is run, about its ethos, the health of staff, relationships and the links with the community. Describe the aims of a health promoting school as given at the beginning of chapter 4, Taking a Health Promoting School Approach, ie:

   - Integrate health promotion into every aspect of the curriculum.
   - Introduce healthy programmes into school curricula.
   - Improve working conditions within schools.
   - Foster relationships within schools and with the community.

2. Working in groups of four to five, give out the criteria/principles statements on the health promoting school. Ask them to think about healthy eating. Which of the statements do they think are relevant for healthy eating?

3. Give each group three different statements and ask them to identify what practical strategies a school or education authority could carry out in order to promote healthy eating. Remind them of some of the factors that they need to consider in addressing this issue.

4. In plenary ask for feedback from each group. Encourage a discussion about:

   - How you decide on priorities in planning to promote healthy eating.
   - At what point you consult with and involve pupils.
   - At what point you consult and involve parents and the community.
   - Thinking about schools they know, to what extent they are already meeting the criteria.

5. Back in their groups, ask them to identify one thing that they have learnt from this activity. Share this in plenary

Criteria/Principles for the Health Promoting School

1. **Democracy**

   The health promoting school is founded on democratic principles conducive to the promotion of learning, personal and social development, and health.

2. **Equity**

   The health promoting school ensures that the principle of equity is enshrined within the educational experience.   This guarantees that schools are free from oppression, fear and ridicule.   The health promoting school provides equal access for all to the full range of educational opportunities.   The aim of the health promoting school is to foster the emotional and social development of every individual, enabling each to attain his or her full potential free from discrimination.

3. **Empowerment and action competence**

   The health promoting school improves young people's abilities to take action and generate change.   It provides a setting within which they, working together with their teachers and others, can gain a sense of achievement.   Young people's empowerment, linked to their visions and ideas, enables them to influence their lives and living conditions.   This is achieved through quality educational policies and practices, which provide opportunities for participation in critical decision-making.

4. **School environment**

   The health promoting school places emphasis on the school environment, both physical and social, as a crucial factor in promoting and sustaining health.   The environment becomes an invaluable resource for effective health promotion, through the nurturing of policies which promote wellbeing.   This includes the formulation and monitoring of health and safety measures, and the introduction of appropriate management structures.

5. **Curriculum**

   The health promoting school's curriculum provides opportunities for young people to gain knowledge and insight, and to acquire essential life skills.   The curriculum must be relevant to the needs of young people, both now and in the future, as well as stimulating their creativity, encouraging them to learn and providing them with necessary learning skills.   The curriculum of a health promoting school also is an inspiration to teachers and others working in the school.   It also acts as a stimulus for their own personal and professional development.

6. **Teacher training**

   The training of teachers is an investment in health, as well as education. Legislation, together with appropriate incentives, must guide the structures of teacher training, both initial and in-service, using the conceptual framework of the health promoting school.

7. **Measuring success**

   Health promoting schools assess the effectiveness of their actions upon the school and the community.   Measuring success is viewed as a means of

support and empowerment, and a process through which health promoting school principles can be applied to their most effective ends.

8. **Collaboration**

Shared responsibility and close collaboration between ministries, and in particular the ministry of education and the ministry of health, is a central requirement in the strategic planning for the health promoting school. The partnership demonstrated at national level is mirrored at regional and local levels. Roles, responsibilities and lines of accountability must be established and clarified for all parties.

9. **Communities**

Parents and the school community have a vital role to play in leading, supporting and reinforcing the concept of school health promotion. Working in partnership, school, parents, non-governmental organizations and the local community, represent a powerful force for positive change. Similarly, young people themselves are more likely to become active citizens in their local communities. Jointly, the school and its community will have a positive impact in creating a social and physical environment conducive to better health.

10 **Sustainability**

All levels of government must commit resources to health promotion in schools. This investment will contribute to the long-term, sustainable development of the wider community. In return, communities will increasingly become a resource for their schools.

Every child should now have the right to benefit from the health promoting school initiative.

Activity 12

How Can Schools Promote Mental And Emotional Health?

Objectives   To reinforce that health is not only a physical concept.
To discuss the ways in which schools can promote mental health and meet health needs.
To introduce Abraham Maslow's hierarchy of needs.

Resources   Flipchart paper.
Marker pens.
Handout on Maslow's hierarchy of needs(Figure 2)

Time   30 minutes

Methods

1. Explain that Abraham Maslow, an American psychologist, decided on a map of needs, based on his study of a range of 'successful' people or 'self-actualizers'. Suggest that the same could be said of what people need to achieve 'health.' His model incorporates not only physiological needs but also 'higher' needs, such as self-esteem and fulfilment.

2. Give out the handout (Figure 2) and talk through the various levels of need, explaining that usually people need to have their lower needs met before they can attend to the higher ones:

Physiological needs:	eg food, sleep, water and warmth;
Safety and security needs:	eg freedom from fear and violence, shelter, order and stability;
Love and belonging needs:	eg feeling part of a family, in friendship, social approval;
Self-esteem needs:	eg being valued by others, self-respect, independence;
Self-actualising needs:	eg acceptance of self and others, realising your unique capabilities, skills and creative expression;
Meta needs:	those which go beyond the personal, eg the pursuit of justice, faith and peace.

3. Ask them to think about whether Maslow's theory makes any sense to them and whether they think it has relevance for promoting healthy eating? Would they amend it in any way?

4. Divide them into six groups. And give each group a sheet of flipchart paper and pen. Ask each group to consider a different level of Maslow and to record what schools could do to help in meeting the needs of students at that level? Thinking of their own school at present, which needs do they think are well met and which tend to be ignored?

6. Bring everyone back together. Ask someone in each group to feedback the main points of their discussion.

Encourage a discussion on:

- What schools seem to be doing well.
- What could be improved.
- To what extent staff needs are also being met.
- Food is one of the basic needs.   To what extent is healthy eating seen to be important in schools?
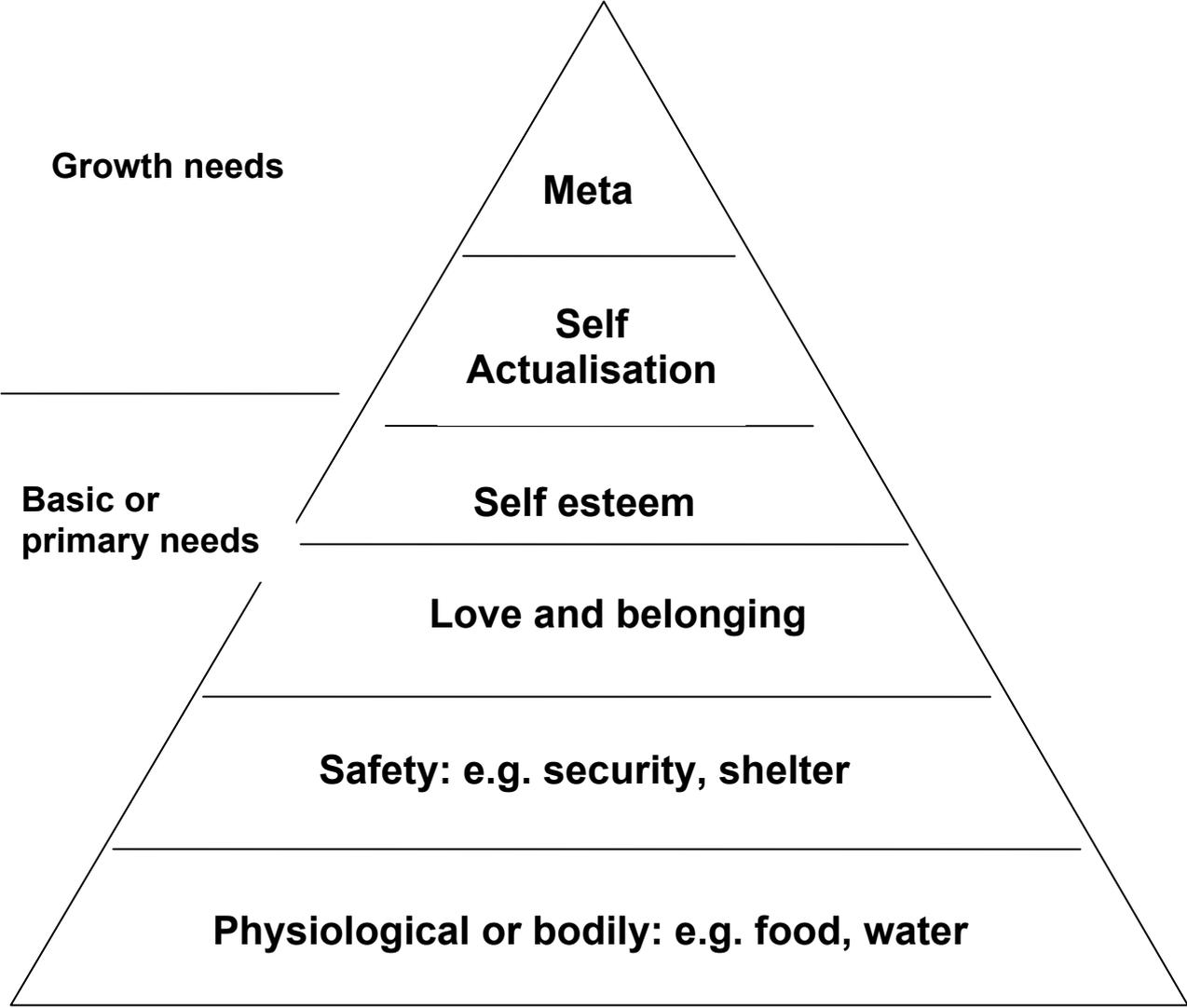
Training Issues
When going through the handout, it is a good idea to give one or two examples of how schools are affected by needs not being met, for example children coming to school hungry, fear for security during conflicts or instability, or breakdown of families meaning children have less of a sense of belonging.

The 'meta' level is usually the one that participants struggle with most.   They may need help with ideas.

Linking with Chapter 4
Taking a Health Promoting School Approach.
Self-esteem (Chapter 3.1).

Figure 2. Maslow's Hierarchy Of Needs

Growth needs

Basic or
primary needs

Meta

Self
Actualisation

Self esteem

Love and belonging

Safety: e.g. security, shelter

Physiological or bodily: e.g. food, water

Activity 13

Listing Talents, Skills And Qualities

Objectives To remember that their own self esteem and well-being is important in their work with young people.
To reflect on the skills they have acquired.
To acknowledge and celebrate all that the group brings to teaching and learning.

Resources Strips of paper or index cards, pens.

Time 45 minutes

Methods

1. Explain that staff's self esteem is also important in working on any health issue. Ask participants to think of all the skills, personal qualities and experiences they bring to learning and teaching, particularly when promoting healthy eating.

2. Provide strips of paper for them to write these down - each talent, skill, quality or experience on a separate strip.

3. Ask them to work in small groups of four, preferably around a table, to share what they bring. They should put all their contributions face down on the table and shuffle them. Each group should then sort and group the statements using their own categories rather than talents, skills, qualities or experiences, and summarise them on a sheet of flip-chart paper.

4. Ask each group to display their flipchart and everyone to walk around, looking at how other groups have categorised and presented their strengths and experiences.

5. Discuss:
   - Whether there are any similarities or differences between what the groups have presented.
   - How easy or difficult it is to own our strengths and experiences.
   - How they felt as a result of doing this activity.
   - How easy it is for young people to identify their strengths and experiences.
   - To what extent schools celebrate young people's strengths and experiences.
   - Whether they could adapt this activity for use with young people.

6. Affirm everything they are bringing to the learning process and stress the importance of self-esteem. Contrast this with the expectations that we sometimes place on ourselves as health educators, and the possible feelings of inadequacy.

Training Issues
Participants may take some time to get into discussion, as people may be reticent to talk about their strengths, for fear of being seen as boastful. If this is the case, use it to open up discussion about whether it is easier to be self critical rather than praise ourselves.

Linking Chapters
Taking a Health Promoting School Approach, (Chapter 4 intro.)
Self-esteem (Chapter 4,Section 3.1)

Activity 14

Understanding Skill Development

Objectives   To reflect on the skills we have acquired as adults and how we got them.
To reflect on the implications for pupils in acquiring skills for healthy eating.

Resources   Pens and paper.
Flipchart paper and marker pen.

Time   30 minutes

Methods
1. Ask the group to think of one or more skills they now have which did not come naturally or easily to them.   They should keep this in mind as they hear the stages of skill development.

2. Explain the stages we go through in learning a new skill:

   - Unconscious incompetence: at the beginning we often do not know how incompetent we are or how difficult something really is to do.
   - Conscious incompetence: as our awareness grows of the skill and of our lack of competence, we become consciously incompetent.
   - Conscious competence: we gradually become more competent, but it is still a conscious effort.
   - Unconscious competence: finally we master the skill so much that it becomes easy.

3. Ask them to share with two other people how this model fits for the skill that they were thinking of and to decide, for that particular skill, whether they would now describe themselves as skilled or reasonably competent.

1. Ask them to move into groups of six to consider how they achieved at least reasonable competence.   What factors enabled or motivated them?   Ask someone to write down all their ideas.

5. In plenary, gather in all the ideas on a central flipchart.   Possible questions for discussion:

   - Is it enough to be reasonably competent?
   - How many of the factors mentioned currently occur in the school setting?
   - What kinds of skills do people need to live healthily?
   - How can pupils be helped to acquire these skills?

Training Issues
This needs to move from personal learning to thinking about learning for pupils.
Linking with Chapter 4
Taking a Health Promoting School Approach, (Chapter 4, intro) Physical Activity (Chapter 4, Section 1.2).
Self-esteem (Chapter 4, Section 3.1).

Activity 15

How Do We Know What Children Think And Feel?

Objectives   To consider how to find out what children and young people think and feel to inform healthy eating initiatives.
To identify ways of consulting them.

Resources   Copiesof 'Discussion Guide for pupils aged 11/12 years. (see next page)..
Flipchart paper. Marker pens.

Time   30 minutes

Methods

1. Ask participants to work in small groups to clarify what they would want to find out from children, to help in planning any healthy eating initiative.   Remember that this does not just involve facts about food, but also physical activity, self-esteem, body image, media awareness, stress etc. Collect ideas on flipchart paper

2. In the same groups ask how they might they go about getting this information without the children feeling they must give the 'right' answer?   Give each group a different age group to consider.   What kind of classroom-based research strategies could be used?   Emphasise the importance of classroom-based research.

3. Back in the whole group, collect the ideas. Have they identified different techniques for the different age groups?   Distribute copies of the 'Discussion Guide for pupils aged 11/12 years.'   The following questions may be useful to trigger discussion:

   - Could parts of this guide help or is it too narrow in its approach?
   - How could you actively involve young people and children in planning an initiative?
   - How would they teach children to access up-to-date facts about healthy lifestyles and eating?
   - What facts would they want to teach so that children could plan their own day-to-day eating positively?
   - What skills would they want to help children and young people develop?

Training Issues

It is useful to have some ideas yourself of strategies for finding out what children think and feel.   If they have not come up with them themselves, you could mention:

   - Illuminative techniques, such as 'Draw and Write' as in Activity 1.   These are especially useful for younger children.
   - Circle time, as practised in many primary schools.
   - Action research by the young people themselves.

Linking with Chapter 4

Taking a Health Promoting School approach (Chapter 4 Intro.)

Linking with Chapter 5

Current eating patterns among European children and adolescents (Factsheet 1).
Food initiatives in schools (Factsheet 4).

Discussion Guide For
Pupils Aged 11/12 Years

1. To start with, can we ask you to note down some of your ideas about your experience of eating in the school.   For example, what do you think about school dinners?

   ❑ We would like you to write down your own ideas on these pieces of paper *(hand round).*   Feel free to write whatever you like, but please think about your own experiences.   You do not have to write down your name or class on the paper.
   ❑ For example, what do you think about lunch times in this school?
   ❑ How do you think the school lunches, tuck-shop and vending machine (*if there is one)* could be improved?

2. Here are some posters about healthy eating and foods that are good for us.
   What do you think is meant by 'healthy eating'?

   ❑ Is it healthy to just eat chips and chocolate?
   ❑ Why? / Why Not?
   ❑ Would it be healthy to just eat fruit all the time?
   ❑ Why?/ Why Not?

3. We would now like to ask you about the food and drink available in the school at lunchtime, or break.

   ❑ Who enjoys the school lunch (*show of hands)* – why do you enjoy it?
   ❑ What do you like most about school lunches?
   ❑ What do you like least?
   ❑ What do you think would improve the school lunch?

4. Is there anything about lunchtime that puts you off having a school lunch?

   ❑ Do you have to wait a long time in a queue?
   ❑ Does lunchtime take too long?   Would you rather be outside playing with your friends?
   ❑ Is the dining room noisy?
   ❑ Does anyone have a packed lunch or lunch box? (*show of hands)*
   ❑ Why do you prefer to have a packed lunch or lunch box?

5. How many of you have breakfast every day? (*show of hands)*
   How many had breakfast today? (*show of hands)*

   ❑ What kind of foods do you have at breakfast?
   ❑ How many of you eat breakfast with one of your parents or an adult who looks after you?
   ❑ Does anyone eat a snack on the way to school?

6. How many of you have dinner/tea with the rest of your family? (*show of hands)*

   ❑ What kinds of foods do you like to eat at dinner time?
   ❑ What do like the least at dinner time?

❑   Do any of you eat dinner while watching the television?

7. Do you get taught about healthy eating in school?

    ❑   Would you like the school to provide more information about healthy eating?
    ❑   Would you like to have a healthy eating project in class?
    ❑   Are there any other issues relating to healthy eating that you think are important?

8. We don't have any further questions that we would like to ask you, but would any of you like to add anything further to what has been said?

9. If you would like to add anything to what you wrote down at the beginning, please go ahead now.

We appreciate all the ideas and suggestions that have been put forward by you today.

Thank you for your time

Activity 16

What Are We Bringing And Taking?

Objectives   To remind participants what they are bringing to the process of health promotion, teaching and learning.
To evaluate the session.

Resources   Two pieces of paper, one with the words 'taking away' and the other with the word 'bringing' in large letters.

Time   20 minutes, depending on the size of the group.

Methods

1. Remind participants that one of the biggest assets in health promotion is the people involved.   Stress that there is a wealth of experience, skills and qualities in the room, but that often people are very modest about what they might have to contribute.   Explain that this is an activity to look at what they are taking away from the session, for example in terms of new learning or feelings, and to identify what we as a group are bringing to the learning and to future work.

2. Make sure that they are sitting in a circle and that there are no empty chairs.   Give one person a sheet of paper marked 'taking away' and the person sitting opposite, on the other side of the circle, a paper marked 'bringing.'   Ask them to put these sheets in front of them on the floor.

3. Explain that the person sitting in the chair marked 'bringing' is to say in one sentence what they think they can bring to health promotion.   The person sitting in the chair marked 'taking away' should say what they are taking away with them from this session.   If they do not want to say anything then they can pass, but ask them to think for themselves why they are doing that.

4. The group then stands and moves round one chair (all in the same direction!).   The procedure is then repeated until everyone has had a chance to sit on both chairs.

Training Issues

This is best with a group of less than 20 or the process can take a long time and get rather tedious.   If you have a large group, you could do a simple round, with each person just saying one word on what they are bringing and a short sentence on what they are taking.

Linking with Chapter 4

Self-esteem (Chapter 4, Section 3.1)

Activity 17

Musical Sheets

Objectives   To introduce a session on balance, support and coming together as a group. To have some fun.

Resources   Music.
Sheets of newspaper.
A space large enough to move around easily.

Time   5 to10 minutes

Methods

1. Lay sheets of newspaper on the floor.   Explain that these are islands.   The floor around is the sea.   They are to swim/dance/walk around the islands while the music is playing when it stops they must quickly get on to an island or at least have one foot on it to be safe.   The task is to make sure that everyone from the group is safe.

2. Play the music and after a short while stop it.

3. Repeat step 2 until only one sheet is left. Try to ensure that everyone has at least one foot in contact with the paper.

4. Back in plenary, make the point that the activity needed cooperation, support and balance to not fall off the island.   Also ask them to think a little about how they felt during the activity.   Possible questions might be:

   - How did they feel when they were asked to get up and move around?
   - This is a little like musical chairs.   How did they used to feel about party games and games generally when they were children?
   - Does this tell us anything about our attitudes to physical activity generally?

Training Issues

This is only meant to be a warm up, but will be seen to have more relevance if you can link it to the theme of the session.

Activity 18

Statues Of Balance

Objectives   To clarify in a creative way what contributes to a balanced life.

Resources   Flipchart paper.
Marker pens.

Time   20 minutes

Methods

1. Divide them into groups of six.   Tell them that their task is to build a statue, using themselves as material, which show 'a balanced life.'   Explain that one of them is to be the sculptor to explain the thinking behind their statue to the group.   Allow five minutes for the task.

2. Back in plenary, ask the groups to present their sculptures one by one in the centre of the whole group.   The rest of the participants should call out what they can see. Write all their responses on central flipchart.   At the end of each presentation, ask the sculptor to say a few words about the meaning of the group's work of art. Does it fit with what participants were seeing.

3. Repeat the process until all the statues have been seen.

4. Draw their attention to the list of words.   Do they represent a 'balanced lifestyle' or is anything missing.

5. Repeat steps 5 and 6 as in the previous activity, asking:

   - Whether they have mentioned food and physical activity.
   - How they keep food intake and physical activity in balance.
   - When things tend to get out of balance.
   - How they feel when this happens.
   - How and at what stage they try to correct it.

6. Encourage a discussion on the relevance of this to young people and to what we do in schools:

   - To what extent do they think young people have a balanced life?
   - Is a balanced lifestyle sufficiently taught in school health education programmes?
   - Is it modelled in the way the school is organised?
   - What can a school do to help in this process?

Training Issues

Stress that children should be encouraged to recognise the value of broader lifestyle activities, in addition to valuing more formal sports, dance and physical activities.

Linking with Chapter 4
Taking a Health Promoting School Approach…
This is a good activity for opening discussion on lifestyles and in that way links to Food Patterns and Preference (Section 2.1) and Physical Activity (Section 1.2).

Linking with Chapter 5
Current eating patterns in European school children (Factsheet 1).
Energy balance (Factsheet 3).

Activity 19

Life In The Balance

Objectives   To recognise the importance of balance in being healthy and in healthy eating.
              To look at the balance between food intake and physical activity in our lives.

Resources   10 sheets of card (or paper) for each group of four people.
              Marker pens.
              Flipchart paper or wallpaper to make a balancing plank.

Time   45 minutes

Methods
1. Ask participants to recall a day (or days) in their lives when they knew that life was in a good balance.   Suggest they think about:

   - How they knew it was in balance.
   - What it made them feel they could do.

2. In groups of 4, ask them to make a shared list of those things in their lives and lifestyles which gave them this feeling of balance.   Give each group approximately 10 cards and ask them to write each thing from their list on a separate card with a large marker pen.   They should distribute the cards amongst the members of their small group (so that everyone has something to contribute in the next stage of the activity when back in the whole group).

3. Sitting in a circle, ask them to imagine that there is a large balancing plank in the middle of the floor.   You could make this out of flipchart paper or wallpaper.   Ask them to picture themselves on the centre of a balancing plank, trying to keep it stable.

4. Invite someone to put one card, written in their group of four, on the balancing plank, reading out what is on it. Explain that, if anyone else has the same from another group, they should put it next to it. Gradually build up a picture, with people sharing their cards one by one.

5. Once all the cards are on the plank, discuss:

   - Whether they have mentioned food and physical activity.
   - How they keep food intake and physical activity in balance.
   - When things tend to get out of balance.
   - How they feel when this happens.
   - How and at what stage they try to correct it.

6. Encourage a discussion on the relevance of this to young people and to what we do in schools:

- To what extent do they think young people have a balanced life?
- Is a balanced lifestyle sufficiently taught in school health education programmes?
- Is it modelled in the way the school is organised?
- What can a school do to help in this process?

Training Issues
In placing their cards on the floor in the centre of the room, they may tend to rush to do several at once.   Make sure that they go one at a time so that everyone can hear what is on each card.

Participants might mention: Family; physical activity; friends; food; sunshine; relationships; respect; time; space; work; environment.

Linking with Chapter 4
Food for growth (Section 1.1).
Physical activity (Section 1.2).
Self-esteem (Section 3.1).

Linking with Chapter 5
Current eating patterns in European school children (Factsheet 1).
Energy balance (Factsheet 3).
Water (Factsheet 7).

Activity 20

Keeping In Balance

Objectives   To identify the different strategies used to restore balance in our lives.

Resources   None.

Time   10 minutes

Methods
1. Going round the group, ask each person to call out one thing they do when they feel out of balance.   You may want to write down their replies on flipchart paper, but try to keep it as informal and unthreatening as possible.   As with all rounds, if they do not want to participate they can say 'pass.'   They can also repeat something a previous person has said.

2. Try to classify some of their replies.   This might include that some people mentioned:

   - An enjoyable distraction or hobby.
   - Mental relaxation, for example watching TV, reading, meditation.
   - Communicating with others.
   - Some form of physical activity.

3. Explain that we all have different strategies, some of which make things better, some which may eventually make things worse.   Have they ever found themselves caught in a vicious circle, where life seems so stressful and full that they have no time for the things which would help them feel more in balance.   Time for themselves is sometimes the first thing to go.   Ask them to think about how much physical activity they engage in.   This can lead well into Activity 21, Listing Physical Activities.

Linking with Chapter 4
Physical activity (Section 1.2).

Linking with Chapter 5
Energy balance (Factsheet 3).

Activity 21

Listing Physical Activities

Objectives   To clarify the differences between physical activity, exercise and fitness.
To explore participants' attitudes to the importance and value of physical activity and health-related fitness for young people.

Resources   Flipchart paper.
Marker pens.
Chapter 4 Section1.2, Physical activity for each participant.

Time   15 minutes

Methods
1. Brainstorm all the physical activities that they have carried out over the last seven days.   List these on a flip-chart.

2. Review how many of the 'activities' were common, every-day items, such as vacuum-cleaning, gardening, climbing stairs, washing the car, etc

3. Hand out Chapter 1.2, Physical Activity, and ask them to look at Box 1 - to draw their attention to the energy expended in carrying out routine activities.

4. You could ask:

   - Is there anything that they had mentioned in their list that they would have liked to see included?
   - Are there any surprises on the list in the handout?
   - How can we best introduce an understanding of physical activity levels to children?

Training Issues
Make the point that physical activity is not all about exercise and PE - a more ecological view places physical activity as an integral part of our lives.   Activities that are chosen and enjoyed are more likely to result in continued participation than those that are enforced. There is also a place for activities that serve a function - like walking or cycling to school.

Materials from *The Class Moves* could be used here.   Building small activities into a children's day will help young people build physical activity into their lifestyle.

Linking with Chapter 4
Physical activity (Chapter 1.2).

Linking with Chapter 5
Dietary targets and activity guidelines (Factsheet 2).

Activity 22

Diamond 9

Objectives   To clarify the differences between physical activity, exercise and fitness.
To explore participants' attitudes to the importance and value of physical activity and health-related fitness for young people.

Resources   A set of Diamond Nine cards for each group. **Time** 45 minutes

Methods

1. Outline the objectives of the activity.

2. Working in groups of 4, give each group a set of Diamond Nine cards. Indicate that there are 11 cards in the set. Nine contain a statement about physical activity, health and young people, and two are blank.

3. Ask the groups to discuss each statement and then arrange them in order of importance in a diamond shape, as agreed by the group. The statement they agree is most important should be placed at the top of the diamond, and the one they consider to be least important at the bottom. They can also replace up to two statements with their own, using the blank cards.

4. Ask the groups to feed-back the outcome of their task to the whole group, saying:

   - What they placed as top priority.
   - What they placed at the bottom.
   - What they wrote on the blank diamonds.
   - Record the answers to these three questions on a central flipchart, to be able to compare the results from all the groups.

5. Stimulate discussion by asking:

   - Which statements did they have the most discussion over?
   - Which statement was most difficult to agree a position for, and why?
   - What was their rationale for choosing their top statement?

Training Issues
The final shape of the diagram need not be a diamond - but prioritising statements and choosing a top priority helps to generate discussion.
Be prepared to give background information from the statements out of chapter 1.2 physical activity.

Linking with Chapter 4
Physical activity (Section 1.2).

Linking with Chapter 5
Current eating patterns among European children (Factsheet 1).
Water (Factsheet 7).

Diamond 9 Exercise

Statements On Exercise And Fitness In Schools

Young people are naturally healthy and fit so there's no need to worry about their levels of physical activity.

Young people should be encouraged to undertake more physical activity because it contributes to disease prevention and the development of healthy personal and social growth.

Young people get physical education or some form of physical activity in school so there's no need to worry about their health-related fitness; the schools have got it covered.

Young people need to be encouraged to regard physical activity as an integral part of their lives, something essential for the healthy completion of tasks for daily living.

It is important that parents and teachers develop and maintain children's early enthusiasm for being active so that they can benefit later in life.

Young people have the right to decide how little or how much physical activity they undertake - if they want to be unhealthy that's their choice.

There are enough pressures on schools without them having to worry about whether young people are doing enough physical activity and finding ways of encouraging them to be more active.

As teachers we should do as much as we can to promote physical activity among young people as it can have a positive impact on other aspects of their schoolwork.

There's no point in schools wasting energy, time and resources on promoting physical activity among young people because they stop doing it when they leave school.

Activity 23

What Do I Think?

Objectives To identify some barriers to and opportunities for participation in physical activity among young people.
To impart new information on physical activity.
To highlight some ways in which the school can overcome barriers and encourage opportunities.

Resources 'What do I think?' Handout for each participant to be given out at beginning.
Copies of Background information to be given out at appropriate time.
Pens.

Time 40 minutes

Methods
1. Give participants a 'What do I think?' handout and ask them to complete it on their own, following the instructions given.

2. Invite them to find a partner to discuss their responses to the first six statements: 'Children generally are less physically active today because…' If they seem to disagree, encourage them to explore this further to see whether they can reach an agreement.

3. Give each pair a copy of the background information and suggest that they look at the information given for the first six questions.   Would they want to change any of their responses in the light of the information given?

4. Ask them to find another partner to discuss their answers to the next six statements: 'Some children are less physically active today because…'Repeat step 3, focussing on the relevant questions.

5. Finally they should find someone else to go through the same process for the last six questions: 'Children would be more physically active if…'

6. In the main group discuss:

   • Which statements gave rise to most discussion.
   • Whether they changed any of their responses after reading the background information.

7. Ask them how we could categorise the types of barriers to participation in physical activity by young people, for example lack of facilities and negative social influences.   List these on central flipchart.

Discuss:
   • Whether they think these are real barriers, or merely excuses for avoiding physical activity?
   • The extent to which the school contributes to creating these barriers

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- The extent to which they think schools they know have identified ways of overcoming the barriers.
- What further steps a could school take to overcome them and present opportunities to increase young people's levels of physical activity now and in the future?

Training Issues
Make sure that the point is made that the challenge for teachers and parents is to maintain and develop children's early enthusiasm for being active.
Participants may become defensive about what their school is doing, wanting to talk about existing good practice such as safer routes to schools or walking bus schemes. Reiterate that you hoped that the discussion would highlight the good work already going on as well as acknowledging restraints.

Linking with Chapter 4
Physical activity (Section 1.2).
Discussion might also raise the role of the media (Section 3.3).

Linking with Chapter 5
Dietary targets and activity guidelines for young people (Factsheet 2).
Energy balance (Factsheet 3).
The media (factsheet 8).

What Do I Think?

Read the statements below and indicate your responses by ticking one of the boxes.

Children generally are less physically active today because …	Agree	Disagree	Don't know/ not sure
1. there are no safe places for them to play			
2. they prefer to spend their leisure time in front of a computer or TV or video			
3. their parents drive them everywhere			
4. parents put too much emphasis on academic achievement			
5. schools put too much emphasis on competition			
6. they just don't have the motivation to be physically active			

Some children are less physically active because …	Agree	Disagree	Don't know/ not sure
7. their friends aren't physically active			
8. they don't think they're good at any physical activities			
9. their parents can't afford to send them to clubs or classes and there are no cheaper alternatives			
10. they're embarrassed about how they look when taking part			
11. they don't get the chance to take part in physical activities that they would enjoy			
12. they're girls			

Children would be more physically active if…	Agree	Disagree	Don't know/ not sure
13. they had better facilities at school			
14. they had better facilities in their communities			
15. the adults in their lives set a good example by being more physically active themselves			
16. more was done to increase understanding of how physical activity is linked to things such as protecting the environment and promoting independence as well as contributing to good health.			
17. more was done to recognise and reward their participation in informal physical activities (such as cycling to school, walking the dog or doing other physically active chores.)			
18. teachers and parents had less pressures and more time to encourage children to be more active			

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Background Information

Children Generally Are Less Physically Active Today Because…

1. **there are no safe places for them to play**
    Increasing safety concerns may impact on the amount of freedom given to young people to be active outdoors in the absence of adult supervision.   Percentage of time spent outdoors has been found to be strongly associated with physical activity. There is some evidence to suggest that parents place more restrictions on girls than boys.   A lack of green spaces and the amount of traffic on roads is also likely to contribute.   In some countries there has been a consistent loss of playing fields as urban areas make room for new houses to be built.

2. **they prefer to spend their leisure time in front of a computer or TV or video**
    It is estimated that the average child watches 20 hours of television a week. Evidence is mixed in terms of the relationship between sedentary activities, such as TV viewing, and physical activity.   Recent increases in obesity and overweight among children in the UK have been associated with an increase in sedentary behaviours.   The HBSC study suggests that in some countries TV viewing is associated with lower levels of physical activity among schoolchildren, but that computer use is not.   Among boys, those who play computer games most often are sometimes also the most active.   The evidence does not appear to support the idea that young people are either very active or inactive.   Instead it appears more complex and many young people commonly combine both sedentary activities and physical activity.   The two are not necessarily mutually exclusive.

    Lindquist et al. (1999) found TV viewing to be unrelated to physical activity.   They wrote: 'rather than emerging as an activity competing with exercise, as has been previously suggested, television viewing appears to be a behaviour independent from exercise, since children who watch more television do not necessarily engage in less physical activity'.

3. **their parents drive them everywhere**
    There is evidence to indicate that increasing numbers of children being driven to school in the last twenty years.   But many schools have also adopted Safe and Active Routes to School initiatives to promote walking and cycling to school in an attempt to change this trend.   Active support from parents in terms of transportation to sports clubs and activities has been shown to be positively correlated with physical activity.

4. **schools and parents put too much emphasis on academic achievement**
    Increasing demands on schools to raise standards of overall education and, in particular, literacy and numeracy, has led to a continuing decrease in time allocated to physical education (Welsman and Armstrong, 2000).   There is evidence that some girls are turned off physical education when there is not enough time allocated for showering or getting dressed after lessons.   But it is not only the time available for physical education, but also the content of the curriculum offered which may be critical for promoting a physically active lifestyle in young people (Armstrong and Welsman, 1997).

5. **schools put too much emphasis on competition**
   Evidence indicates that the majority of schools continue to offer predominantly team-based competitive sporting activities, while the number of young people participating in such activities decreases markedly with age. Often these types of activities do not match those preferred by young people themselves. Welsman and Armstrong (2000) suggest that this discrepancy may be a significant barrier to schools fulfilling their obligation to promote healthy patterns of behaviour in young people and has implications for attempts to establish active lifestyles which may be continued into adulthood.

6. **they just don't have the motivation to be physically active**
   Motivation is a key determinant of physical activity in young people but is itself influenced by a range of factors, including self-esteem, personality, attitudes and previous experience.

Some Children Are Less Physically Active Than Others Because….

7. **their friends aren't**
   Peer group influences are very important, particularly during adolescence. But the evidence is inconclusive in relation to physical activity. Parental influence appears stronger than that of friends, even in the teenage years.

8. **they don't think they're good at any physical activities and therefore are less likely to be physically active**
   Self-esteem consistently has been shown to be linked to physical activity. Young people who feel more confident about being active are much more likely to take part in physical activities. Young people who feel that they are not good at sports will be much more likely to try to avoid competitive sport situations. Physical activity has also been shown to enhance self-esteem in young people. Schools can help to promote self-esteem among pupils by providing inclusive, non-competitive opportunities for physical activity and being sensitive to issues related to team selection.

9. **their parents can't afford to send them to clubs or classes and there are no cheaper alternatives**
   The links between physical activity and socio-economic status are complex. In some countries there is evidence that levels of vigorous activity are higher among children from higher socio-economic status groups, but that levels of moderate activity are higher among children in lower socio-economic groups. This may be due to differences in types of activities. Vigorous activity may be related to participation in organised sports and games.

   Links have been found between parental assistance and physical activity in young people, which includes parents paying fees for children's activities.

10. **they're embarrassed about how they look to others when taking part**
    Very few studies have examined the relationship between body image and physical activity levels and findings are inconsistent. However, it is acknowledged there is a strong correlation between body image and self-esteem.

11. **they don't get the chance to take part in physical activities that they would enjoy**

Enjoyment is a key determinant of physical activity in young people. However, many of the opportunities available to young people for physical activity are limited, particularly within schools. Schools should review the range of opportunities available to young people both in team sports and in non-competitive activities.

12. **they are girls**

There are substantial gender differences in levels of activity with boys being consistently more active than girls. This difference is particularly apparent during the teenage years, when levels of physical activity decrease considerably among girls in many European countries. Special efforts are needed to increase physical activity in girls. However, it may not be purely a matter of preference. Parental expectations, opportunities and type of activities available may also be important.

Children Would Be More Physically Active If…

13. **they had better facilities at school**

The pressure on land for building purposes has resulted in fewer playing areas in some countries. Multi-purpose halls in primary schools may not be ideal for ball games or available for regular use by year groups.

14. **they had better facilities in their local communities**

Access to programmes and facilities is related to physical activity in both adults and young people. Physical environments have the capacity to facilitate or hinder physical activity.

15. **the adults in their lives set a good example by being more physically active themselves**

Support from parents and significant others such as teachers and coaches is strongly related to physical activity in adolescents. This may take a number of forms including: modelling the behaviour, encouragement, communicating positive attitudes and beliefs, and direct practical assistance such as transportation and paying fees (parents).

16. **more was done to increase their understanding of how physical activity is linked to things such as protecting the environment and promoting independence as well as contributing to good health**

Knowledge does not appear to have a major impact on physical activity behaviour, but perceived benefits and barriers have been associated with physical activity levels. For example, if young people think the benefits of being active - whether they be social, psychological or physical - outweigh the costs (such as time, effort, feeling tired and sweaty), they are more likely to be active. Schools could emphasise the benefits of physical activity while seeking to address and minimise perceived and real barriers or costs.

17. **more was done to recognise and reward their participation in informal physical activities (such as cycling to school, walking the dog, washing the car or doing other physically active chores)**

Being active is not just about taking part in organised games or activities. There are many natural opportunities for being active during a young person's day and these should be encouraged.   The health benefits of a wide range of activities, including transportation, recreational activities and domestic chores, should be communicated to young people.   Schools can play a part by promoting active routes to school and providing opportunities to be active throughout the school day.

18. **teachers and parents today had less pressures and more time to encourage children to be more active**
Measures that help children to develop responsibility for their own bodies and health foster a strong internal sense of empowerment and control.   This has been shown to be important in many areas of health.

Activity 24

A Sorry Tale

Objectives   To review the external pressures on children's and young people's eating choices and patterns.
To highlight recent trends in levels of physical activity and eating habits.
To discuss the factors that might be contributing to this and the potential impact on health and other aspects of life/wellbeing.

Resources   A copy of a 'Sorry Tale' for each participant.

Time   10 minutes

Methods
1. Ask participants to read through 'Sorry Tale' and to share (in twos) their preliminary reactions to the content.   Do they see any parallels with the children and young people they work with?   In what ways?

2. Discuss in the whole group:

    *   Their reactions.
    *   Any parallels with children they work with?
    *   What are the health risks for children who are adopting or have adopted this high-fat, high-sugar diet (refer to Chapter 2.2, Overweight and Obesity).
    *   Could this 'sorry tale' be used in a positive way with children in the 11-12 age range, or with other children?
    *   What key points would we raise with children to make it a positive effective piece of learning?
    *   How do we raise the issue of health risks with the children without damaging their self-esteem?
    *   How do we handle possible conflict within the classroom, the school and with the children's families?

Linking with Chapter 4
Overweight and obesity (Section 2.2).
It could also link to Food patterns and preferences (Section 2.1) and Physical activity (Section 1.2).

Linking with Chapter 5
Energy balance (Factsheet 3).

A sorry tale…

A very dramatic example of the effects of assuming a less active lifestyle and adopting a 'Western'-style, high-fat, high-sugar diet is provided by the story of the inhabitants of the Nauru island in the Pacific Ocean.

This tiny island has some of the richest phosphate reserves in the world due to the resident seabird population.   The purchase of the phosphate by fertiliser companies has led to significant increases in the average per capita income of the islanders over the last 30 years.   This, in turn, has persuaded them to abandon their traditional diet of fish and vegetables in favour of expensive, imported 'Western' foods, and acquire labour-saving devices which allow them to adopt a much less active lifestyle.

In the course of a single generation, they have become one of the most obese populations on the planet.   Thirty percent of the islanders now suffer from diabetes.

Activity 25

Physical Activity Case Study/Scenario

Objectives   To highlight recent trends in levels of physical activity among young people.
To discuss the factors that may be contributing to this, and the potential impact on young people's health and wellbeing.
To impart information from Chapter 1.2, Physical Activity.

Resources   Scenario 1 and 2.

Time   30 minutes

Methods

1. Briefly explain that despite the wealth of evidence on the benefits of regular physical activity.   Health professionals and others are concerned that young people today may not be engaging in enough physical activity to accrue such benefits, either in the short or long term.   (It is important not to impart too much factual information at this stage) Indicate that this session involves a practical exercise to identify some factors that might be contributing to this situation and what the consequences might be for young people now and in the future.

2. Divide them into two groups, or four groups, if the group is quite large. Issue the groups with either Scenario 1 or Scenario 2 and instruct them to proceed with the task as described.

3. Allow the groups enough time to complete the task before asking each of them to share what they have come up with in the manner of their choosing.   For example they may wish to simply read out the issues they have explored or offer a role play or other method for expressing their views.

4. Spend a few minutes discussing with the whole group:

   - The similarities and differences between the stories.
   - The extent to which personal attitudes, beliefs and experiences impinged on the storyline.
   - Whether this made progressing with the task easy or difficult.

5. Give each group a handout containing information extracted from Chapter 4, section 1.2 Physical Activity.   Ask them to revisit their stories and consider what, if anything, they would change in the light of this information.

6. Encourage discussion on how this exercise could be used in the classroom. How would it need to be modified?   What issues are likely to be raised?   Is it likely to get children thinking about their own physical activity levels?   Is it likely to encourage them to be more (or less) physically active?

Training Issues

This exercise could also be offered as pre-course work, allowing you to use the session to generate discussion around the stories before continuing with the final activity.

An alternative to asking individuals or groups to devise a story is to ask them to come up with a time line of critical periods, moments or events that would shape the outcome of each scenario.

Linking with Chapter 4
Physical activity (Section 1.2).

Linking with Chapter 5
Dietary targets and activity guidelines for young people (Factsheet 2).
Energy balance (Factsheet 3).
Biological changes in puberty (Factsheet 6).

Scenario One

Devise A Story That Starts With The Line:

When Jan Was Nine, He Wasn't Very Active …

Continue by:

- Explaining why Jan wasn't very active when he was nine.

- Describing how this affected his:
  ° physical health
  ° emotional health
  ° social development.

- Indicating whether Jan stayed inactive, got more or even less active as he got older.

- Identifying the factors that influenced his behaviour as he got older and the longer term impact on his life.

Notes
The story can be humorous or serious, but it must be grounded in reality; it could, in fact, be a true story.   Be prepared to share your story with other participants through role-play or a reading.

_____

Scenario Two

Devise A Story That Starts With The Line:

When Katerina Was Eleven She Was Very Active …

Continue by:

- Explaining why Katerina was very active when she was eleven.

- Highlighting what kinds of physical activity she engaged in.

- Describing how this affected her
  ° physical health
  ° emotional health
  ° social development.

- Indicating whether Katerina maintained the same level of physical activity, got more or less active as she got older.

- Identifying the factors that influenced her behaviour as she got older and the longer term impact on her life.

Notes
The story can be humorous or serious, but it must be grounded in reality; it could, in fact, be a true story.   Be prepared to share your story with other participants through role-play or a reading.

Activity 26

'Messages' About Bodies

Objectives To explore where we get our body images and our images of what a man or woman should be like.

Resources
- Flipchart paper with different prepared headings:
- Mothers said little girls should be…
- Mothers said little boys should be…
- Fathers said little girls should be…
- Fathers said little boys should be…
- Mothers said a man should ideally be…
- Fathers said a man should ideally be…
- Mothers said a woman should ideally be…
- Fathers said a woman should ideally be…

Marker pens.

Time 30 minutes

Methods

1. Ask participants who they think influence children's ideas about 'ideal' images for a man or woman. Answers are likely to include: parents, siblings, peers, magazines, pop and sports idols. Explain that body image is a complicated concept influenced by many psychological, emotional and social factors. In this activity we are going to explore the types of 'messages' children can get from parents about their bodies and about how their bodies should be as adults.

2. Divide participants into 8 groups (or 4 groups) Give each group a sheet of paper with a different heading (or 2 sheets of paper with different headings if working as four groups), as described under Resources. Invite them to write down all the different 'messages' that they, their siblings or friends were given as children.

3. Display the sheets and compare the 'messages' on the sheets:
   - About the differences between girls and women.
   - About the differences between boys and men.
   - About how boys and girls should be.

   Possible prompts for discussion are:
   - How many 'messages' relate to appearance and image?
   - What effect do they think these 'messages' have on children's views on how they are and should be?
   - Is there anything that schools can do to encourage children and young people to have a healthy regard for their body and body image?

Linking with Chapter 4
Self esteem (Section 3.1) Body Image (Section 3.2)

Linking with Chapter 5
Biological changes at puberty (Factsheet 6).

Activity 27

Body Image - Mind's Eye

Objectives   To explore the link between the child's body as it really is and the image the child has of his or her body.

Time   20 minutes

Methods
1. Ask participants to work with a partner to recall and share an occasion when they became aware that the image someone had of them was not consistent with their own view of themselves; when they realised that other people did not see them as they saw themselves.   Examples might be hearing someone say 'You always look so calm and confident'', or 'But you don't have to worry about your weight', or 'You are so well organised'.   How often have they thought or said, 'What - me?!!'

2. Ask them if they have ever built a body image of someone they have never seen, but whose voice they have heard or whom they have heard spoken about.   Have they ever built an image of a character in a book?   Ask them to share with a different partner an example of getting it right - when they have met the person or have seen the character in a film or play and found them exactly as they had imagined.   Have they ever been quite wrong?   How did that feel?

3. Come together as a group to share recollections of how easy it can be to be wrong about how other people see us, and how easily we can mis-construct body images of others.   Possible questions for discussion include:

   - What has this got to do with children approaching or experiencing puberty?
   - What has this got to do with children approaching or experiencing their transfer into a new school phase?
   - What is the impact on a young person's self-esteem of the way he or she views his or her body, and views the bodies of peers?
   - To what extent can this threaten the young person's confidence?
   - Do young people's role models have a desirable or acceptable body image?
   - Are role models chosen freely by young people, or are they thrust upon them through the media?   Does that affect the influence of learning in school?

Training Issues
Stress that young people's sense of body image is not fixed, but fluctuates due to the influence of a wide range of factors, self-esteem in particular.

Linking with Chapter 4
Self esteem (Section 3.1) Body Image (Section 3.2).
The role of the media (Chapter 3.3).

Linking with Chapter 5
Factsheet 6 Biological changes in puberty.

Activity 28

Barbie And Action Man

Objectives   To consider how body images and stereotypes form at an early age.
To focus on what motivates some children and young people to want to change their bodies and their body images.

Resources   Optional - 'Barbie' type dolls and 'Action Man' dolls.

Time   30 minutes

Methods
1. **Either** take in a 'Barbie' type and 'Action Man' doll or dolls.   Hold them up or pass them round.   Please note these dolls are sold in many European countries but if this is not appropriate in specific countries the trainer may wish to reflect on the relevance of this exercise or whether there are equivalent dolls or images that can be used as stimulus material.

   Or ask participants to work on their own to draw a quick sketch or some kind of symbol to represent the Barbie doll and Action Man image.

2. Ask them to write some words to describe how they perceive this image, and how they feel about it or react to it.

3. Invite them to move into small groups and make a shared group version of all their individual contributions on flip-chart paper.   Ask if they can:

   - Group their views under some headings, (such as positive, negative, acceptable, dismissive, damaging).
   - List their major concerns around these images and stereotypes.
   - Add what they think Barbie's vital statistics would be if translated into human measurements, giving, if possible, an estimate of height, weight, bust, waist, hips, and ratio of body length to leg length.

4. Display these sheets so that other groups can share and compare their views. Point out:

   - the vital statistics (as given in Chapter 2.3, Dieting): that for a woman to have the same proportions as a 'Barbie doll' she would have to grow an additional 17 inches in height and have an overall body shape found in less than 1 in 100,000 women within the general population!
   - that the dolls are marked 'suitable for 3 years up' although this is to do with safety and not appropriateness.

   Questions for discussion include:

   - What is the effect on boys and girls of seeing these as the ideal body image and stereotype?
   - How many gender and self-esteem issues arise from peers describing girls and boys in language which includes the word 'fat'?

- Is the topic of body image and its link with self-esteem being tackled systematically from an early age?
- Can we teach young people to recognise what their bodies are telling them, and to work within what is fun, healthy and realistic?
- Could this exercise be used with young people to help them to realise how unrealistic these body images and stereotypes are, despite the fact that they may have moved on from playing with this type of toy?

Training Issues
Some teachers may see this exercise as too focused on a young age range. You may need to explain that this is about how young people develop their attitudes to body images and is to trigger discussion rather than being a classroom tool

Linking with Chapter 4
Eating disorders (Section 2.4).
Body Image (Section 3.2).
The role of the media (Section 3.3).

Linking with Chapter 5
The Media (Factsheet 8).

Activity 29

Body Image Scenarios

Objectives   To examine the effects of being different or perceiving yourself as different.
To focus on what motivates some young people to want to change their bodies and their body images.
To consider how to respond to young people's wish for physical changes.

Resources   A copy of 'Body image scenario' for each participant.
Flipchart paper.
Marker pens.

Time   20-30 minutes

Methods
1. Working in groups of 3 - 4, give each person a 'body image scenario' handout. Ask them to read the scenarios, keeping in mind the possible reasons why the young people might be wanting to change their bodies.

2. After this general discussion, allocate a different scenario to each group (or invite them to choose a different one each.)

3. Ask them to give the person in the scenario an appropriate name, avoiding stereotypical names and decide on his or her age (between 8-13 years). They should then put this information at the top of a sheet of flip-chart paper.

4. Give them the following questions as prompts for discussion:

   - What is the major reason for this person wanting to change his or her body?
   - To what extent is the desire for change related to physical wellbeing, mental wellbeing, or both?
   - To what extent is peer pressure and peer approval involved?
   - To what extent is media pressure evident?
   - What could a teacher or school do in response to that scenario?

5. Ask them to summarise their discussion on the flip-chart paper.

6. Display these sheets for a 'Market Place' activity, asking the participants to go round the display with a shared task, looking at:

   - the range of characters and ages
   - the motivations for change
   - the kinds of responses mentioned

7. Come together in plenary to share their perceptions and concerns. Key questions could be:

   - What are schools doing in relation to this area of physical and emotional wellbeing?

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- Is the topic of body image and its link with self-esteem being tackled systematically from the youngest age?
- Can we teach young people to recognise what their bodies are telling them, and to work within what is fun, healthy and realistic?
- Does this imply a different focus for a curriculum in health?

Linking with Chapter 4
Adjusting to puberty (Section 1.3).
Body image (Section 3.2) The role of the media (Section 3.3).

Body Image Scenarios

Situation I	Situation 2
A young person who is suffering because of some aspect of their body, says no one wants to go near them, and is actively looking for help but doesn't know where to turn. The young person says they can't speak about this at home, and friends laugh.	A young person is unhappy with their size and shape, feels left out and is taking up a strict exercise and slimming routine recommended by a older friend who is in great shape.
Situation 3	Situation 4
A young girl is of average weight for her age, but is convinced that she is overweight and much fatter than all her friends. She is eating as little as possible. She says she feels fine and is happy.	A boy who is small for his age and wants to look more muscular and 'cool'. He feels particularly embarrassed in PE and at parties and discos.
Situation 5	Situation 6
A girl whose figure hasn't yet developed and has heard boys describing her as 'skinny'. She says all the other girls in her class have 'proper' figures, and that she is a 'freak' with no friends. She is saving up her money for a breast implant as soon as she is allowed to do this.	A young person who has hopes of being a pop star and has been told that on TV and video you look 3 kilos heavier. She is determined to lose this much or more weight as quickly as possible. She says she has got to do it to get anywhere because no one successful is fat.

Please add more scenarios from your own experience if you wish.

Activity 30

What It Means To Be Overweight

Objectives   To look at discrimination related to overweight children and possible strategies for change.
To raise awareness and promote discussion on changing trends in prevalence of overweight and obese children.

Resources   A copy of Chapter 4 Section 2.2, Overweight and Obesity, for each participant.
Flipchart paper.
Marker pens.

Time   45 minutes

Methods

1. Ask participants how they would define 'overweight and obese.' Give out copies of Section 2.2, Overweight and Obesity, and draw their attention to the definitions given on the opening page.

2. Ask them to then focus on the section on the consequences of being overweight. This mentions research which puts forward evidence that, from an early age, children view overweight peers in terms of negative personal characteristics.

3. Ask them to call out names they have heard children use about someone they see as overweight. Reinforce that research has shown that young people have a wide vocabulary to describe such people. Some will focus on aspects of personality such as laziness, greed, indulgence, and lack of willpower.

4. Ask participants to work with a partner to share any experiences where they have seen or sensed this kind of discrimination happening and to say how they would feel if they were described in such a way.

5. Come together as a whole group to pull out the possible consequences of this behaviour on overweight children's wellbeing, self-esteem and future eating patterns.

6. Working in three groups, ask each group to describe strategies that could be carried out to counteract negative behaviours and attitudes. Ask each group to focus on one of the following:

   - Within the health promoting school.
   - Within the classroom or
   - With parents and carers.

7. Ask them to record their answers on flipchart paper and present these in the whole group.

8. In plenary discuss:

- How can we impact on children who are or could be discriminated against in this way?
- How can we impact on children holding discriminatory views from an early age?

Training Issues
Discussion needs to be handled sensitively as some people in the group may have a poor self-image or have personally experienced discrimination.

Linking with Chapter 4
Overweight and Obesity (Section 2.2).
Self Esteem (Section 3.1).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).

Activity 31

Puberty 'Thought Shower'

Objectives   To clarify some of the attitudes and associations with the word 'puberty'.

Resources   Filpchart paper.
Marker pens.

Time   15 minutes

Methods
1. Go round the group, asking each person to call out a word they think of when they hear the word 'puberty.'   As they call out the words, list them on flipchart paper.

2. Discuss:

    - How many are gender specific?
    - How many could be seen as negative and how many positive?
    - How many are to do with feelings?
    - What they think are young people's views on 'puberty'?
    - What will influence their views?

3. Stress that just thinking about puberty might tap into different memories that we all have - for some these may be pleasant and for others painful.   Puberty can be a challenging time for some young people and is often seen as something negative that has to be endured rather than something that is exciting and to be enjoyed. After all, this is the time of life when young people begin to assert their independence and establish their individual personalities and identities.   These are things to celebrate and take pride in. The health promoting school has a significant role to play in helping young people view puberty in a positive light by enabling and encouraging them to develop a sense of pride and respect for their changing bodies and in helping them to embrace puberty and enjoy their journey into adulthood.

Training Issues
Remember that discussion around puberty may evoke memories and feelings in some participants.   You need to remain sensitive to this and help participants to feel safe, expressing their feelings or respecting their privacy as appropriate.   See the Trainers Notes for more on this.

It might be possible to link this activity to a range of other topics - particularly on body image and/or self esteem & how changes in life, like puberty can affect positively and negatively.

Linking with Chapter 4
Adjusting to puberty (Section 1.3).

Linking with Chapter 5
Biological changes at puberty (Factsheet 6).

Activity 32

Being Different

Objectives   To examine the effects of being different or perceiving yourself as different.
To discuss the relevance of this for young people experiencing puberty.

Resources   Flipchart paper.
Marker pens.
Situation cards.

Time   30 minutes

Methods

1. Arrange participants in groups of 4-6.   Give each group a sheet of flip-chart paper and some marker pens and a situation card.   If they do not feel there are enough details on their card, encourage them to expand on what is written.

2. Ask them to think about the situation they have been given and record on the flipchart paper:

   - What this person might be feeling.
   - What this person might be thinking.
   - How this person might see him/herself.
   - What this person might do to a) fit in and be accepted and b) compensate for being different.

3. When they have finished, ask each group to feedback their results to the others. Discuss, as a whole group:

   - The similarities and differences between groups' responses.
   - Were their perceptions of the inner thoughts, feelings and reactions of these individuals largely positive, or negative?
   - In general, do they think that young people like being seen as being different from their peers?

4. Reflect that some of the situations were about being different and others specifically around the issues of being an early or late developer.   Drawing on the content of Chapter 1.3 on 'Adjusting to Puberty', explain that some young people have difficulties managing or coping with puberty because they see themselves as different from others of the same age.   This can have an impact on their social and emotional wellbeing, their behaviour and their relationships.   Refer in particular to the points highlighted in the chapter about the 'social context' of puberty and the issues concerning 'early' and 'late' developers.

5. If you are continuing with Activity 33 'Puberty Story Boards', explain that the next activity explores what schools can do to help pupils cope with the changes of puberty.   If you do not have time for another activity, raise the following questions:

- What, from your own experience, are the schools responsibilities in situations where young people appear not to be coping well in relation to the changes of puberty?
- Is it always appropriate to take action?
- What else could a health promoting school do to help pupils who appear not to be coping well with puberty or who are feeling different?

Training Issues

The chapter on '*Adjusting to Puberty'* provides background information that you could use to help groups with their tasks and the discussions that follow.

It is worth validating the good work schools are already doing and its importance.

Some participants may feel defensive about the school's role. They may say that some issues are a matter of child protection and they can only refer. Reiterate that referral is a valid and important action. Discussion could also open out to what more could be expected from the community/family/media/etc.

Linking with Chapter 4

Adjusting to puberty (Section 1.3).
Taking a Health Promoting School Approach.
Self-esteem (Section 3.1).

Linking Factsheets

Biological changes at puberty (Factsheet 6).

Being Different

Greg is 12 and towers above his friends of the same age.   He also has spots on his face, neck and back and some fine facial hair.   His feet have grown so fast he feels that they don't belong to him.   He often bumps into things and his teachers think he's clumsy.   He gets pains in his legs when he takes part in sports so he's stopped joining his friends in games of football.

Lauren is 10 and one of a small number of black children in her school.   She is very conscious of this and is shy when making friends.   She sometimes gets bullied and is becoming more and more withdrawn.   She longs for the bullying to stop.

Kirsty is 11 and had her first period several months ago.   She's been wearing a bra since she was in P6.   She is very self-conscious about her body and gets teased by the boys in her class.   She doesn't join in playground activities because of this and has become quite shy and withdrawn.   Her mother is worried about her eating habits as Kirsty insists she needs to go on a diet.

Jack is in a wheelchair and attends his local primary school, where he is the only disabled person.   He starts secondary school after the summer holidays and is worried about mixing with older boys who might be cruel to him.

Amy has a medical condition and takes medication which affects her weight.   She is only 12 years old and weighs 11 stone.   She thinks no one likes her because of her size.

Chloe is 14 and in her 3rd year at secondary school.   She's much smaller than the other girls in her year, and even though she wears a bra, other girls and boys in her year call her "pancake" because she's so flat-chested.   Until now, she's always been a good student but has recently been smoking and truanting from school.   Her parents are worried about her change in attitude and the new friends she's started hanging around with.

Jamie is 16 and looks younger than his little sister who's only 14.   He's the smallest in his class and hasn't started shaving yet.   While most of his close friends have developed a fairly muscular physique, he still looks the way he was when he was 12.   He has become quite disruptive in class and recently turned up at the school disco under the influence of alcohol.

Activity 33

Puberty Story Boards

Objectives   To identify the factors that can help or hinder the process of adjusting to change.
To identify the key role that the school can play in helping young people to feel good about themselves and their bodies as they progress through puberty.

Resources   Scenarios.
Flipchart paper.
Marker pens (different colours); a range of old magazines and/or catalogues with lots of coloured pictures and images; Pritt stick or glue; Scissors; Blu tack.

Time   1 hour

Methods
1. Explain that this activity is going to focus on how the school can help young people feel good about themselves as they progress through puberty.

2. Divide into groups of 4-6 people. Explain that they will each be given a scenario around which they have to devise a storyboard. The storyboard should show how the school can play a pivotal role in turning this situation around so that the young person involved feels much more positive and confident about his or her predicament. The groups should be encouraged to use any of the materials available to assist in this task, and to be as creative as possible. (See under resources above for suggestions of materials). Stories can be funny, or serious, or a bit of both. They can introduce other characters to the story, real or cartoon, and can take the story out of the school and into other settings. The main thing is that the health promoting school plays an important role in how the situation is turned round.

3. Allow the groups about 30 minutes to complete the task.

4. Ask each group in turn to share their storyboard with the others. Ask them to identify the scenario they were given and to indicate what process they went through in coming up with the final product.

5. Stress that while it may not be possible for schools to succeed in making all pupils feel good about themselves all of the time, it is worth considering the 'ripple' effect of throwing just one small pebble into a pond. Enabling even one young person to feel good about his or herself can have positive repercussions that are much wider, farther reaching and which could last way beyond puberty. It may also be worth reflecting on and sharing some of the information from chapter 4, section 1.3 Reflect on the activity, asking:

   - How did they feel doing it? Did they enjoy it?
   - What can they learn from this activity that might influence what they do in schools?

Training Issues

As with all activities on puberty remember that discussion around puberty can bring up painful memories for people and reiterate that participants should be respectful of that. See Trainer's Notes for more details on ground rules and respecting privacy.

Linking with Chapter 4

Adjusting to puberty (Section 1.3).
Self-esteem (Section 3.1).
A Health Promoting School Approach.

Linking with Chapter 5

Biological changes at puberty (Factsheet 6).
Food initiatives in schools (Factsheet 4).

Storyboard Scenarios

10 year-old girl: 'Ugh! I don't want to develop big boobs and get spots and hairs under my arms and on other places.   I like myself the way I am.'

15 year-old boy: 'My friends are always talking about girls and sex and things but I'm not interested.   I'm worried that there's something wrong with me.'

12 year-old girl: 'I'm frightened about puberty because it means I'll have to be all grown up and wear high heels and make-up and have sex.   I want to play football with my brother and his mates and go swimming.'

13 year-old girl: 'I like a boy in my class and would like to go out with him.   I'm scared to ask him though because I feel ugly.   I've got lots of spots and I'm fat.   I'm worried that he'd just laugh at me and say "no way" and then tell all his friends.   I'd feel really bad if this happened and I don't know if I could face him or his friends again.'

Activity 34

What Help Can Be Given?

Objectives   To identify strategies for helping young people to adjust positively to being 'different', especially during puberty.

Time   30 minutes

Methods
1. Change the groups around so that participants get the chance to work with other people but keep the group size as before (between 4-6 members).   Issue each group with fresh sheets of flip-chart paper and a situation card from Being Different, Activity 32 (page X).   Ask each group to consider the situation they have now been given and then to put themselves in the position of the young person's: a) friends; b) parents; c) teacher; d) school.   They should then identify what each could do to help this individual to adjust more positively to his or her situation.

2. Ask groups to feedback the results of their task.   Encourage discussion, by asking:

   - What difficulties might be encountered in trying to intervene?
   - What are the costs and benefits of the interventions?
   - Do the benefits in the short-term and long term outweigh the costs?
   - Is it always appropriate to take action in situations where young people appear not to be coping well to the changes of puberty?
   - What, from your own experience, are the schools responsibilities?
   - How can a health promoting school help pupils who appear not to be coping well with puberty?

Training Issues
If the issue of child protection is raised, you may want to continue with Activity 50, 'Who do you turn to' which explores the procedures to be followed in cases where children are suspected of being at risk.

Emphasise that referral is a valid and important action.

Linking with Chapter 4
The health promoting schools approach.
Adjusting to puberty (Section 1.3).

Linking with Chapter 5
Food initiatives in schools (Factsheet 4).
Biological changes at puberty (Factsheet 6).

Activity 35

Persuade Me

Objectives   To become more aware of the techniques used by advertisers, especially in TV commercials, to persuade viewers to buy their products.

Resources   Flipchart
Pens and paper.

Time   30 minutes

Methods

1. In groups of four, ask participants to share an advertisement they have seen on TV or heard on the radio that has stayed in their memories.   They should share:

    *   Why they still remember it?
    *   What impact it had?
    *   How do they feel now when they recall it?

2. Ask them now to share an example of something they saw advertised on TV and which they decided or were tempted to buy.   Discuss in their group:

    *   What made them do this?
    *   How do they feel about it now?

3. Ask the groups to brainstorm and summarise the techniques they see used in TV commercials to persuade people to buy.   Ask them to consider categories such as:

    *   If you <u>don't</u> (buy or use etc), you will be…people will think you are…you will look and feel…
    *   If you <u>do</u> (buy or use etc) this item however, you will be…have…feel… look…

    Ask them to underline the techniques used in advertising directed at children.

4. In plenary ask for feedback on the marketing techniques used in advertising directed at children.   List these on central flipchart.

5. Encourage them to identify other methods which are used besides TV advertising. Ask them to think of those methods related to foods, drinks and fast food outlets.

6. Ask for ideas on how might we enable the children we work with to recognise and challenge this form of pressure?

7. Can we teach young people to live with its messages, and to become increasingly skilled in recognising fact, fiction, advertising, spin, myth, hearsay, emotional manipulation, pressure and persuasion?

Linking with Chapter 4
The role of the media (Section 3.3).

Linking with Chapter 5
Energy balance (Factsheet 3).

Activity 36

Media Pressures

Objectives   To highlight recent trends in levels of physical activity and eating habits.
To explore the commercial pressures that might be contributing to this, and the potential impact on health and other aspects of life/wellbeing.
To explore ways in which school can impact on a young person's health.

Resources   Flipchart paper. Marker pens.

Time   30 minutes

Methods
1. Invite them to move into groups of fours to look at the media pressures young people are subjected to in terms of food, patterns of eating and physical activity.

2. Ask them to use some form of pictorial representation/poster to share with the whole group.

3. Display all the posters.

4. In plenary, discuss:

   - What appears as a feature of all the posters?
   - Any unusual aspect appearing on a poster?
   - Any common themes and concerns?
   - What are the chief risks to children and young people?

5. It might be helpful at this point to hand out chapter 4 section 3.3, the Role of the media, to compare their thoughts with the information given in the chapter.

6. Ask them to go back into their small groups to discuss how we raise the issue of these health risks without causing them to embark on diets and patterns of eating which could involve even greater risks. Ask each group to make one or more suggestions for raising the issues in a positive way within school and record these.

7. Share their suggestions on practical strategies they can use.

8. Consider and share strategies for involving parents in giving each young person a sense of what is right for them.

Linking with Chapter 4
Food patterns and preferences (Section 2.1).   Physical activity (Section 1.2).
The role of the media (Section 3.3).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).
Food initiatives in schools (Factsheet 4).   The Media (Factsheet 8).

Activity 37

Advertisements

Objectives   To reinforce the impact of the media and advertising on attitudes towards health.
To identify the range of techniques used by advertisers to promote their products.

Resources   Newspapers, magazines, scissors, 'cellotape' or glue.
Flipchart paper labelled as below.
Marker pens.
A copy of the handout 'Decoding Sheet' for each participant.

Time   30 minutes

Methods

1. Working in groups of 4 or 5, give each a pile of newspapers and magazines. Ask them to cut out any advertisements carrying health 'messages.'

2. Give each group four large sheets of paper labelled:

   i.   These can damage your health.
   ii. These claim to contribute to health.
   iii. These promote health and give information about health.
   iv. These are neutral; leaving you to make up your own mind.

   Ask each group to sort their advertisements and stick them on the appropriate sheet.

3. Give each group copies of the 'Decoding Sheet' to help them analyze the ways in which advertisers promote their message or product.

3. Bring the groups together to share their views about the way health 'messages' are promoted. The following questions could be used to encourage discussion:

   - Which category had the most advertisements? Why do they think this is? Who pays for the advertisement?
   - Which advertisements do they like best? Why?
   - How were these advertisements persuasive? For example, the use of colour, their emotional appeal or the use of celebrities?
   - Can we get conflicting health 'messages' in the same place?
   - How can we assess the truth of the health 'message'?
   - Who has the most money to spend on advertisements?
   - What effect do advertising hoardings have on the environment?
   - How can we educate to develop a critical awareness of advertising?

Linking with Chapter 4
The role of the media (Section 3.3).

Linking with Chapter 5
The Media (Factsheet 8).

DECODING SHEET

Place a tick to show which techniques were used in your advertisements

Techniques	Adverts Which Can Damage Your Health	Adverts Making Health Claims	Adverts For Health Promotion
Use of sex Appeal			
Wealth			
Humour			
Strength/macho appeal			
Use of a famous name, personality			
Competitions			
Giving factual Information			
Attractiveness of people involved			
Appealing to the emotions			
Linking products to social success to appeal to a certain audience			
Other techniques?			

Activity 38

Body Image - Magazines

Objectives   To explore the link between the child's body as it really is and the body image he or she has.
To review external pressures on children's eating choices and patterns.
To heighten awareness on the invasive nature/influence of the media.

Resources   Magazines for teenagers.
Flipchart paper.
Marker pens.

Time   45 minutes

Methods
1. Working in groups of 4 to 6, give each group several teenage magazines.   Explain that, although these are intended for an older age group, they are often read by children aged 8 - 13.

2. Invite them to look at:

   - The language used.
   - The mood or emotions encouraged.
   - The physical and personality images projected by role models in these magazines.

3. Ask for feedback to the whole group, asking them to hold up any images that particularly illustrate their points.   How powerful do they think the magazines are in persuading and influencing young people?

4. Back in their groups, ask them to share their views of who are the current celebrities or even role models for the 8-13 age range, and list these (by name or some other description) at the top of a sheet of flipchart paper.   Under this, ask them to make two columns headed:

   <u>How their bodies are described</u>   <u>The images/personality projected</u>

   Under the first heading, ask them to list as many words and phrases they have seen and heard used to describe the *bodies* of these role models, such as: bronze, sleek, toned, honed, slim, sexy, fabulous.

   Under the second column, ask them to list the words and phrases they have seen and heard used to describe the *image or personality* these celebrities project, such as: confident, cool, successful, sexy, tough, feminine, masculine, star, glamorous.

4. Come together as a group to amalgamate the lists into two large ones, and to look at the kind of vocabulary used.   Encourage discussion by asking:

   - Looking at the two lists, how closely are they related?

- What is the link the young people make between body image and personal confidence and success?
- Would young people see these descriptions as positive and desirable?
- What are the risks in this?
- Does the fashion trade aimed at this age range play a part in supporting these images?
- How much do role models influence young people, in both positive and negative senses?
- How can we teach young people to examine these images more critically, and to see the reality behind them?
- How could the school make these images more realistic and draw out positive healthy goals?
- How could health professionals help?

Training Issues

Linking with Chapter 4
Dieting (Section 2.3).
Body Image (Section 3.2).
The role of the media (Section 3.3).

Linking with Chapter 5
The Media (Factsheet 8).

Activity 39

Body Image & Media Stars

Objectives   To discuss the type of body image projected by media 'stars.'
To explore the impact of this on young people.

Resources   Flipchart paper.
Marker pens.
'Post-it' sticky paper or cards.

Time   30 minutes

Methods

1. Ask participants to work in groups of 4 to 5. Assign each group a different type of media star or celebrity, eg film stars, models, pop stars, sports stars, television stars. Give each group several 'post-it' sheets and ask them to write on each 'post-it' the name of a different well known person from their category of media star. Ask them to pass these to another group.

2. Now give each group a piece of flip chart, paper and a pen. Ask them to make 3 columns: thin, normal and overweight. Looking at the names on the post-its, decide in which column they would place each person.

3. In their groups, discuss:

   - Which columns have most names?
   - Why this might be?
   - Whether they can think of any people in that category who could be put in the other columns?

4. Ask for feedback from each group on what they have found and whether it was easy to agree

5. In the whole group raise some of the following questions:

   - Are there any 'normal' celebrities? Are these normal people likely to be role models? What is normal?
   - What about athletes? Although generally athletes would not be considered thin is their body type still normal?
   - Is there any difference between the sexes?
   - What categories do most overweight celebrities fit into? Do they tend to be stereotyped?
   - Is an overweight celebrity a good thing? Are they valued for their talent or for being different?
   - What impact are the images of these 'media stars' likely to have on young people?
   - What can schools do to help? In what other ways do children and young people get a measure on what is 'normal'?

- Is the concept of 'normal' the same in different cultures or at different times in history?
- To what extent is the issue about normality and 'being normal'. Is it also important to accept and discuss the issue of diversity?

Training Issues

It may be useful to draw attention to some of the facts from the chapter and factsheet on the media:

- Research has consistently found that most female characters on television or other parts of the media are thinner than average women. It has been estimated that models and actresses in the 1990s had 10%-15% body fat - the average body fat for a healthy woman is considered to be 22-26% and this trend for celebrities to be thinner has continued and may have become even more noticeable.

- Successful larger women are famous for their comic roles, but there are far fewer larger women presenters or actresses in glamorous roles on television.

- Overweight people tend to be portrayed in the media as figures of ridicule, and successful female celebrities find that their weight loss or weight gain can become the focus of media attention and speculation.

Linking with Chapter 4
Body Image (Section 3.2).
The role of the media (Section 3.3).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).
Food initiatives in schools (Factsheet 4).
The Media (Factsheet 8).

Activity 40

Self Esteem And The Media.

Objectives   To look at how four characteristics of self esteem can be found in the media.
To consider the impact of the media on young people's sense of self and identity.

Resources   Flipchart paper and pen.

Time   25 minutes

Methods
1. Point out that the media does not always have a negative effect on young people. It can play a useful and important function in their lives. They often discuss the media, including what music they listen to, what songs they like, what video games they play, what television programmes they watch and what brands they wear. Ask participants to turn to the person next to them and share what they think young people get from the media.

2. Ask them to call out their ideas and record these on a central sheet of flipchart paper.

3. Give out the handout on body image and self esteem and allow time for them to read it through. Invite any questions or comments. Make the point that:

   - This sort of media obsession is a way of connecting to other people and to the world around them. The media gives them something to talk about and something to have an opinion about.
   - It could be argued that their choices regarding the media empower them, define their 'uniqueness' as well as their 'connectiveness'. The media is also a provider of role models.

4. Ask for suggestions on other ways in which young people can develop these four senses (see next page). Examples, might include: home life, culture, religion, schools, after school activities (music, drama, art, sports, nature, environmentalism)

5. Encourage a discussion on:

   - Which they feel are the most important influences?
   - How important is the media?
   - What part can schools play?

Linking with Chapter 4
Body Image (Section 3.2).
The role of the media (Section 3.3).

Linking with Chapter 5
The Media (Factsheet 8).

Body Image And Self Esteem

Body image and self-esteem can be considered synonymous in terms of their importance in influencing how young people feel about themselves. The most effective way of improving body image, therefore, will be to boost self-esteem, and *vice versa*. Ikeda and Naworski (1992) built on the earlier work of Bean (1992) to develop the idea of four conditions or senses necessary to maintain a high level of self-esteem, and related them to body image.

A Sense Of 'Connectiveness'	A Sense Of Uniqueness
This enables young people to feel strong links to the people and places around them, and to feel secure with them. If they are not happy with their body image, their sense of 'connectiveness' may deteriorate. Encouraging respect and support for fellow-students and teachers in the school may help them to feel 'connected' to their environment and peers.	This is threatened when the young person feels his or her body doesn't 'fit' expectations (either his or her own or others), meaning his or her 'uniqueness' is perceived in a negative, rather than positive, way. Teachers can help re-establish the positive sense of uniqueness by emphasising and praising the young person's qualities and reinforcing how important they are to the individual and those around him or her.
A Sense Of Power Young people with a sense of power feel they have some control over their lives. Teachers can encourage them to make decisions and take responsibility for their actions, while offering guidance on making choices and developing healthy behaviours. This is particularly appropriate in relation to personal and social development and the health education curriculum, where decision-making and taking responsibility are encouraged across all the health-related topics and issues.	**A Sense Of Role-Models** Role-models represent the standards and values young people need to help them make sense of the world and to develop their own sense of responsibility. Some young people, such as those who are overweight or disabled, may find it difficult to identify appropriate role-models, so they should have access to resources which present people of all abilities, cultures, sizes, and gender. Teachers have the potential to positively influence young people's values and behaviours. There is evidence that if young people respect their teacher, it has a powerful effect in encouraging their learning.

Activity 41

All Change

Objectives To use the 'changing places' activity as a means of encouraging people to circulate.
To heighten awareness of the popularity of dieting.

Resources Chairs arranged in a circle, one for each person.

Time 10 minutes

Methods
This could be used as a warm up activity.

1. Invite people to sit in a circle (or two circles if numbers are large). Ask them to listen to each statement called out and, if they fit the criteria, to stand and exchange places with another person who is also standing up.

   - *Had breakfast today.*
   - *Has a book or video on losing weight.*
   - *Ate fruit yesterday.*
   - *Has a friend who has gone on a diet at some time to lose weight.*
   - *Knows someone who has been on a diet they enjoyed.*
   - *Can name two diets.*
   - *Knows someone who has been on the Atkins diet.*
   - *Knows someone who goes to a slimming club.*
   - *Knows someone who would like to put on weight.*
   - *Knows someone who has put weight on again after being on a diet.*

3. Thinking back over their responses and on how many people moved each time, you could open discussion by asking:

   - What does this tell us about the popularity of dieting?
   - What do they think are the drawbacks of dieting?

3. Make the point that there has been a significant increase in recent years in the proportion of fifteen year-old girls and boys who report having been on a diet to lose weight. However it has been established that most diets are not effective in the long term. Most people who lose weight in dieting will regain most of the pounds they have lost, leading to further attempts at weight loss.

Linking with Chapter 4
Dieting (Section 2.3).

Activity 42

Draw A Person Of Ideal Weight

Objectives To heighten awareness of the limitations of labels such as 'ideal weight'.

Resources Sheets of paper, crayons.

Time 20 minutes

Methods
This is a possible activity for use after Activity 1, 'Draw a healthy person.'

1. Ask the participants to draw a second picture, this time of a person of 'ideal weight'.

2. Ask them to share their pictures with people around them.

3. Back in the whole group, you could ask:

    *   Was this a more difficult picture to draw?
    *   Did they want to challenge the concept of an 'ideal weight'?
    *   Would any of their pictures of a 'healthy person' be excluded from this 'ideal' image?   If so, on what grounds?
    *   Whose ideal does this phrase represent?   Is it a medical term, or a media one? How widely do these differ?

Training Issues
The issues for this activity are similar to issues for Activity 1, 'Draw a Healthy Person' - it might help to follow Activity 1 with this activity.

Linking with Chapter 4
Although this activity could introduce any number of discussions, it is particularly linked to:

Dieting (Section 2.3).
Body image (Section 3.2).
The role of the media (Section 3.3).

Linking with Chapter 5
Dietary targets and activity guidelines for young people (Factsheet 2).

Activity 43

Diet 'Fads' And Fictions

Objectives   To consider critically the impact of articles in magazines and newspapers promoting 'fad' and celebrity endorsed diets.
To consider how to educate children and young people to recognise this kind of promotion and to question them in terms of role models for healthy lifestyles.

Resources   Examples of magazine/newspaper articles promoting weight loss, new diets, articles by celebrities on dieting, magazine covers promising diet or slimming advice, authoritative information on healthy eating.
Paper and pens. Handout 'Features to look for' for each participant.

Time   30 minutes

Methods
1. Ask them to work in pairs.   Distribute magazines with articles about diets.

2. Remind participants that publishers of magazines and newspapers know that sales are increased if the cover or front page promises something inside about dieting.   Ask them to note down:

   * the words, images and celebrity names being used to ensure it attracts the reader
   * what age-range of people might read this article?

3. Back in the whole group invite them to say what their article was about and what they have noted.   Are all the articles in agreement about what enables weight loss?

4. Give out the handout and ask them to work again in their pair to consider the questions on it with reference to their article or advertisement.

4. Ask them to share their responses with the big group. Ask questions such as:

   * How would they encourage children and young people to apply their analytical skills to identify celebrity-style 'hyped' diets or the sale of a 'slimming' product?
   * How would they introduce the dangers of these in terms of emotional wellbeing?

Training Issues
Make sure that the point comes across that the pressure that idealises a thin shape for girls and a broad muscular shape for boys starts early and is reinforced through the media. This activity is similar to Activity 38 Body Image Magazines.

Linking with Chapter 4 Dieting (Section 2.3). The role of the media (Section 3.3).
Linking with Chapter 5 Current eating patterns among European children and adolescents (Factsheet 1).
Food initiatives in schools (Factsheet 4).

Features To Look For

	Yes	No
The language of 'diet' emphasises 'slim' as its selling point		
The article uses words such as 'miraculous', 'effortless'		
The article emphasises a quick or 'speedy result'		
A permanent result is implied		
The balance between physical activity and intake of food is mentioned		
The suggested diet would pass guidelines for a balanced diet		
There is any medical support or evidence		
There are any warnings tied to the diet		
Any foods are 'banned' in the diet, or are otherwise labelled 'bad'		
The images accompanying the diets are realistic		
The recommended foods are expensive		
Something is being sold on the strength of the article		
Something in particular would make the article or advertisement appealing to young people, for example associations with popular culture, fashion and music		

Activity 44

The Reasons For Dieting

Objectives   To encourage a wider understanding of the range of issues and pressures that lead people to 'go on a diet'.

Resources   Cards with different ages and genders, for example:
girl - 8 years, boy - 8 years, girl - 13 years, boy -13 years, woman - 18 years, man -18 years, woman - 30, man - 30.
Flipchart paper and marker pens.
Blu-tack.

Time   30 minutes

Methods

1. Ask participants to think of a time when someone they know (for example a close friend, a relative or themselves) decided to go on a weight loss diet.   Think about what was going on in their lives at the time and what might have led them to making that decision.

2. Invite them to work with two other people to share their views of why and when this occurred.   Write down the reasons.   Did they feel under any pressure from other people to go on the diet?

3. Give each trio a sheet of flipchart, marker pens and a different card (with an age and gender written on it).   Ask them to stick their card in the middle of the flipchart paper and all around it write all the reasons why that person might go on a weight loss diet. Explain that they have ten minutes.

4. When time is up, ask them to remove their card and pass it on to the next group. They should then look at the reasons they gave initially and underline any that still apply for this new person.

5. Continue this process several times.

6. Back in plenary, discuss:

   - Which of their reasons were underlined several times, applying to most people?
   - Were any reasons more age specific?   Point out that the age at which dieting becomes common continues to fall, with reports of children as young as 5-7 years restricting their food intake.
   - Were any reasons more gender specific?   The triggers for dieting are likely to be concerns about appearance and associated changes in body shape that accompany puberty, particularly for girls.

   Stress that dieting can be motivated by a range of concerns and pressures, hopes and fears, and these need to be reflected in our planning and practice, particularly in the primary school age range.

Training Issues
Be prepared that this activity might lead to a discussion on child protection.

A possible point to make is that in describing underweight people, young children tend to use vocabulary that includes evidence of concern - unhappy, sad, fading away, something wrong with them.

Linking with Chapter 4
Dieting (Section 2.3).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).
Energy balance (Factsheet 3).

Activity 45

Dieting!

Objectives   To consider ways in which research findings could be used to inform the health education programme.
To encourage a wider understanding of the issues and pressures that lead people to 'go on a diet'.

Resources   A copy of the handout 'Dieting'.

Time   30 minutes

Methods

1. Give participants the workshop handout, Dieting!   Ask them to read through the four extracts and make mental notes of information which:

   - Was new to them.
   - Surprised them.
   - Did not surprise them.
   - They already knew.
   - Concerned them.

2. Invite them to share these perceptions in pairs.

4. Move into four groups, allocating a different extract to each group.   Challenge each group to discuss and present:

   - One way in which the health promoting school could address the issues in their extract regarding pupils.
   - One way in which the content of their extract could be used with colleagues to inform their approach and practice.

4. In plenary, collect in their ideas on flipchart and discuss the importance of these and other research findings in developing healthy eating programmes within the health promoting school and related work on body image and body language.

Linking with Chapter 4
Dieting (Section 2.3).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).
Energy balance (Factsheet 3).

Dieting!

Extract 1
Studies of the waist/hip ratio of mannequins and calculation of the amount of body fat this would represent show that if women possessed the shapes commonly used to display clothes from about 1970 onwards, they would have ceased to menstruate and therefore be infertile.   Similarly, it has been calculated that for a woman to have the same proportions as a Barbie doll they would have to grow an additional 17 inches in height and have an overall body shape found in less than 1 in 100,000 women within the general population (Norton 1996)!
Norton, K.L., Olds, T.S., Olive, S., Dank, S. (1996) Ken and Barbie at life size *Sex Roles* 34: 287-294.

Extract 2
When children are shown silhouette figures and asked to choose ideal shapes, they select shapes closer to these 'icons' than to real life.   This discrepancy is much greater in girls than in boys.   Boys consistently select female silhouettes which are larger and more rounded than do girls, which demonstrates an interesting mismatch between what is considered attractive by the two sexes.
The pressure that idealises a thin shape for girls and a broad muscular shape for boys starts early and continues to be reinforced through magazines, television and cinema.

Extract 3
In terms of meal patterns, there is an increasing tendency for girls to eliminate breakfast in many European countries and in some cases over half of 13 and 15 year-olds do not eat this meal every day (Todd *et al.*, 2000).   This understandably fuels concern for the alertness of children during lessons at school, although the research picture on the relationship between missed meals and measures of attention is not clear.
Todd, J., et al (2000) *Health Behaviours of Scottish Schoolchildren Technical Report 3: Eating and Activity Patterns in the 1990s*. Edinburgh: RUHBC, Edinburgh University.

Extract 4
Concerns about weight may also prompt initiation of smoking as, for some people, nicotine appears to have an appetite suppressant effect.   The common belief in the likelihood of weight gain following smoking cessation may also fuel this idea.   Recent research in America suggests that, among both girls and boys aged between 9-14 years, contemplation of smoking is positively associated with weight concerns.   It is important, therefore, that school health programmes address healthy methods of weight maintenance and dispel the notion of tobacco use as an effective or desirable method.

Activity 46

What Would You Do?

Objectives   To identify appropriate responses to a young person thinking of or already dieting.

Resources   Cards with different ages and genders, for example:
girl - 8 years, boy - 8 years, girl - 13 years, boy -13 years, woman - 18 years, man -18 years, woman - 30 years, man - 30 years.
Flipchart paper.

Time   30 minutes

Methods
1. Working in threes, give each group a card with a different age and gender. Explain that they are to imagine a situation involving a member of school staff (teacher or support staff) and regarding the person on their card.   That person is thinking of dieting or is already dieting.   How is the member of staff likely to be involved, for example:

   - The person asking advice.
   - A concerned friend mentioning that the person is dieting.
   - A concerned parent.

   Ask them to write a realistic scenario on their card.   This will then be handed to another group, to explore what the member of staff might do.

2. Ask them to exchange their cards with another trio.   Check that they understand the scenario.   Ask them to jot down how a teacher should respond to that situation.

3. In plenary, ask them to read out their scenarios and to give their ideas on responses. You could ask the following:

   - Would the age and/or gender of the dieter affect how staff would respond?
   - What questions would they want to ask?   Does anyone else need to be involved?

Training Issues
This activity may lead into a discussion on child protection.   Be sure that participants are aware of referral policies.   If it becomes an issue, consider Activity 40: Who do you turn to?

Linking with Chapter 4 The health promoting school approach. (Introduction)
Dieting (Section 2.3).

Linking with Chapter 5
Current eating patterns among European children and adolescents (Factsheet 1).
Food initiatives in schools (Factsheet 4).

Activity 47

Eating Disorders 'Thought Shower'

Objectives   Raise awareness and discuss some of the features of eating disorders.
Discuss the possible reasons behind the increased numbers of young people living with eating disorders.
Discuss what can be done to help young people who suffer from eating disorders.

Resources   Flipchart paper.
Marker pens.
Chapter 2.4, Eating Disorders. Other information about eating disorders?

Time   30 minutes

Methods

1. Split the participants into groups of 4-5.   Give each group a sheet of flipchart paper and ask them to draw a line down the middle.   On one side, write all they know about anorexia nervosa and other bulimia nervosa (these could include features of the illness, who it affects and what the signs are).

2. When the groups are finished, ask them to move around the other groups and look at what others have written.   Follow this up with a summary of the main points.   Ask the group if there was anything that came up that surprised them.

3. You may find it useful at this point to hand out a copy of Chapter 2.4, Eating Disorders, as a back- up to the information on the flip-charts.

Training Issues

For those who want more information on eating disorders, they could contact the Eating Disorders Association (UK): www.edauk.com.

Remind the group that some of them are likely to have experiences of eating disorders - either through people they know or personally.   We all need to be sensitive in the language we use and in not making people uncomfortable.   Review the trainers notes for more information.

Linking Chapters

Eating Disorders (Chapter 2.4).
Self esteem (Chapter 3.1).
Body Image (Chapter 3.2).

Linking Factsheets

Energy balance (Factsheet 3).

Activity 48

Eating Disorders - Case Studies

Objectives   To explore the possible reasons for the number of young people living with eating disorders or who are in pre-clinical stage of an eating disorder.
To discuss what can be done to help young people who suffer from eating disorders.
To understand the role and value of referral to specialist services.

Resources   Copies of case studies 1 and 2.

Time   40 minutes

Methods

1. Split the participants into groups of 4 or 5.   Give them either case study 1 or 2, and ask the groups to discuss them and answer the questions.

2. When the groups have done this, ask for feedback.   First, discuss what they have considered doing.   Possible approaches might include:

   - Approaching the young person sensitively and getting their confidence.   How would they deal with the issue of confidentiality?
   - Consulting other members of the pastoral team.   Do they know who they should approach?
   - Talking to parents.
   - Dealing with the concerns of fellow pupils.

3. Discuss what feelings this sort of situation would evoke in them.   You may want to reassure them that most people would feel unsure and lacking in confidence about the best way to handle the situation.   As with other mental health problems, historically in many countries we tried to distance ourselves and hide them away.   They are not easy subjects to deal with.   Many teachers will have little or no experience on dealing with eating disorders in their training.

4. Check whether they are aware of any school policy or procedure about eating disorders?   Reiterate that referral is a valid and important course of action, and, if it is all they can do, it might be the best course of action.

5. Besides reacting to a specific case, what wider strategies could a school implement to help young people who suffer from eating disorders?   The following suggestions are given on the Eating Disorders website.   They come from conversations with a number of students with anorexia and/or bulimia:

   - Help young people reduce their stress. Conduct a 'stress' audit to identify factors which are contributing to stress.
   - Help young people to set realistic standards and have realistic expectations.
   - Empower young people to take control of their lives.

- Have a policy on dealing with bullying (sometimes a reason for a young person developing an eating disorder).

Training Issues
It is helpful to begin with the 'thought shower' to help put the case studies in the context of the illness.

Remind the group that some of them are likely to have experiences of eating disorders - either through people they know or personally. We all need to be sensitive in the language we use and in not putting people 'on the spot'.

For those who want more information on eating disorders, they could contact the Eating Disorders Association (UK):www.edauk.com.

Linking Chapters
Health Promoting School Approach.
Eating Disorders (Chapter 2.4).

Linking Factsheets
Current eating patterns among European children and adolescents (Factsheet 1).
Biological changes at puberty (Factsheet 6).

Eating Disorders

Case Study 1

Lauren is 14 years old and has been in the gymnastic team at school since she was seven. Recently, her body has started to change. Her periods have started but are irregular, and she has not had one for several months.

Lauren has always been quite small and petite but increasingly she feels fat and uncomfortable in her body. She has stopped having family meals and uses the excuse of having to delay eating until she has finished her training. She feels hungry a lot of the time but is pleased with herself for not giving in to hunger. If she does eat, she feels sick and sometimes makes herself vomit.

Lauren used to love going to the cinema with her girlfriends, but recently they have been showing interest in going with a group of boys. Lauren doesn't want the boys to see how 'fat' she is, so wears baggy clothes and lots of layers to cover up her body. One boy, James, seems interested in her, and although her friends think he's really nice, she can't stand the thought of being with him.

Lauren's mum has started to become worried about her losing so much weight, but Lauren continues to believe that she looks fat.

If you were Lauren's teacher:

- What changes do you think you might have noticed?

- How would you handle the situation? Who would you turn to? Do you know the procedure you should follow?

- What feelings would this evoke in you?

Eating Disorder

Case Study 2

Roza is 14 and really fancies one of the boys in the year above her at school, Sasha.   But he never seems to notice her, and always seems to talk to the pretty girls in his year - the ones who are slim and have really cool clothes.

Roza decided that she needed to lose weight so that Sasha would notice her.   She enlisted the help of one of her friends, who said she would diet with her.

Roza's diet had been going fairly well, but she has started to get really strong cravings for food.   One night, she could not resist her cravings any longer and started eating some of the foods she had forbidden herself - chocolate, biscuits, crisps, bread.   She couldn't stop, and felt completely out of control.

After a couple of hours, she felt very sick.   Her stomach ached, and she was ashamed of her behaviour and her lack of willpower.   She made herself sick, as she felt so ill with all the food she'd eaten.

The next day, she did not tell anyone about it, but felt very bad and hated herself for being so weak.   How would she ever get Sasha's attention when she did such terrible things?   But she binged again a few days later, as she had not done so well in a class test and was upset.

Six months later, Roza continues to binge when she feels out of control.   She sometimes takes laxatives to get rid of the food, as her teeth have been getting sore and discoloured from her vomiting.   She is so ashamed of herself and her weakness that she has not discussed it with any of her friends, but they seem less interested in her anyway.   Her best friend says Roza is not any fun anymore so her best friend has been spending more time with other groups of friends.   Roza feels that she doesn't deserve any friends anyway because she is so weak and isn't very interested in things anymore.

If you were Roza's teacher:

- What changes do you think you might have noticed?

- How would you handle the situation?   Who would you turn to?   Do you know the procedure you should follow?

- What feelings would this evoke in you?

Activity 49

Eating Disorders: Roles And Responsibilities

Objectives   To discuss and consider the various roles of schools and teachers/parents/carers/friends and medical staff in identifying and dealing with eating disorders.
To understand and appreciate the role and value of referral to specialist services.
To identify factors that help or hinder a young person's self-awareness.

Resources   Flipchart paper.
Marker pens.

Time   30 minutes

Methods
1. Ask them to work in groups of 4-5.   Give each group a sheet of flip-chart paper and ask them to draw a cross on the paper, splitting it into four; in each corner, write either: school, teacher, parents/family friends, medical staff.

2. Invite the groups to identify the various roles and responsibilities each has in identifying and dealing with young people living with eating disorders or some of the symptoms.   When the groups are finished, ask them to move around the other groups and look at what others have written.

3. Hold a plenary discussion, focusing on the role and responsibility of schools and teachers.   Draw on the experience of the group in dealing with eating disorders and how they have responded in the past.   A particular emphasis could be on the identified responses in helping the young person deal with his or her illness. Summarise the main points raised, and round-off the workshop with a discussion and reflection on how they would run a session with pupils to explore the issues raised.

Training Issues
Remind the group that some of them are likely to have experiences of eating disorders - either through people they know or personally.   We all need to be sensitive in the language we use and in not putting people 'on the spot'.

For those who want more information on eating disorders, they could contact the Eating Disorders Association (UK):www.edauk.com.

Linking with Chapter 4
Health Promoting School Approach.
Eating Disorders (Section 2.4).
Self esteem (Section 3.1).
Body Image (Section 3.2).

Activity 50

Who Do You Turn To?

Objectives To identify sources of support and appropriate courses of action if you think a child is at risk.

Resources Handout based on information on child protection which will be available in most countries.

Time 30 minutes

Methods
1. Explain that often teachers are fearful of opening up the area of body image or eating disorders in case it leads them into disclosure of mental health problems or of child abuse. A recent study by the NSPCC, surveying schools in England and Wales, found that although the school's role in child protection has been set out by the Government, the reality of day-to-day practice is very different. Whilst teachers take their responsibility towards the protection of children seriously, many feel ill-prepared to deal with child abuse. Others feel the teaching profession in general is not supported in this important role.

2. Working in groups of three, give each group one of the following situation

   - A child discloses to you that they are being mistreated/abused at home
   - You suspect a child is being mistreated/abused because of their behaviour, although nothing has been said
   - A child tells you that they are worried about their friend, because they are very unhappy at home.
   - What would you do?   Who would you turn to?   Do you know the procedure you should follow?

3. Give out the handout. Discuss:

   - Whether what they decided to do is in line with the information in the handout
   - Whether they know who is the person responsible for child protection in their school
   - Whether they are aware of any school policy/procedure about child protection
   - What support they feel they need to allay any fears of what to do in situations of suspected child abuse.

   Website www.childpolicy.org.uk.   This website is useful for a range of child policy issues and is not specific to child protection issues.

Chapter four:
Background resource

Chapter 4

The Background Resource

Chapter 4 contains the background information and appropriate research references on some of the key issues related to healthy eating. It has three sections including the mental health and social health aspects as well as the biological issues. The three sections are:

Section 1. Growing and changing
Section 2. Food and young people
Section 3. Image and reality

Each section has a section planner at the beginning to assist the trainer to cross-reference specific aspects of the information with the training activities and Factsheets. In addition there is an introductory section on the context of the health promoting school

About the background resource…

The *Growing Through Adolescence* background resource offers a comprehensive, evidence-based overview of healthy eating in relation to young people, and addresses many of the controversies that surround this complex and fascinating subject.

It has been produced for trainers for use in training sessions with teachers of pupils in upper primary schools and lower secondary schools.

It will enable trainers to build on teachers' existing skills and experience and consequently increase their confidence in exploring a broad range of issues relating to young people and their food choices within a Health Promoting School approach.

What does the background resource offer to trainers?

The background resource offers information on subjects relevant to healthy eating among young people.   The diverse areas explored include growth and development, body image, self-esteem, puberty, the role of the media, nutrition and physical activity.

The aim is to raise awareness of some of the key issues as they relate to young people and present the science of healthy eating in a way that is as clear and as up-to-date as possible. Healthy eating has rapidly moved up the research and policy agendas (WHO, 2003), and understanding continues to evolve.   The background resource should help trainers introduce the issues to teachers from a holistic perspective that takes account of the wide range of factors that impact on young people's attitudes, beliefs, experiences and behaviours.

How should the background resource be used?

Each section in this part of the resource presents background information that will help trainers as they prepare to design and facilitate training sessions.   The sections explore specific themes and provide references and further reading that the trainer may use to consolidate his or her knowledge and understanding of the issues.   The **Factsheets** in chapter 5 offer further detail and factual information on key points raised in the chapters.

Trainers will find recurrent themes, for example, the role of the media in influencing beliefs and behaviour, throughout the resource.   They may wish to take this into account when planning their background reading for specific workshops, or when deciding on whether to make appropriate chapters available for participants.

Key References and further reading

Stewart Burgher, M., Rasmussen, V., Rivett, D. (1999) *The European Network of Health Promoting Schools: the alliance of education and health*. Copenhagen: WHO.World Health Organization European Region (2003) *The First Action Plan for Food and Nutrition Policy*. Copenhagen: WHO.
Young I (Ed) Report of *the European Forum on Eating at School - Making Healthy Choices* (in press), Strasbourg: Council of Europe.

Taking A Health Promoting School Approach

Related factsheet	Related activities
Factsheet 4, *Food initiatives in schools*	10. What factors affect healthy eating? 11. Features of a Health Promoting School 12. How can schools promote mental and emotional health? 15. How do we know what children think and feel? 34. What help can be given? 46. What would you do?

Key points

- The World Health Organization has defined a health promoting school as one which aims at achieving healthy lifestyles for the whole school population by developing supportive environments conducive to the promotion of health. It offers opportunities for, and requires commitment to, the provision of a social and physical environment that is safe and enhances health.

- The Health Promoting Schools (HPS) approach integrates health promotion into every aspect of school life.

- Health Promoting School programmes are most effective when they are multi-faceted and the curriculum is integrated with broader school and community initiatives and when schools work in partnership with parents and local agencies.

- Studies have shown that the Health Promoting School can have a positive impact on the social and physical environments of a school.

All the systems at the school's disposal - teaching and learning styles, management structures, communication systems and social environments - are used to help pupils, teachers and others involved with the school to take control over and improve their physical and emotional health. Research which asked children for their views identified the following key features of a Health Promoting School (MacGregor and Currie, 1995).
It is a school which:

- Everybody wants to come to;

- Wants people to be healthy, whoever they are;

- Has an ethos in which everyone is important;

- Enables everyone to feel safe.

Effective practice in promoting health in schools

HPS research has shown that effective school-based health promotion programmes and interventions are:

- Holistic: based on a broad understanding of health, including physical, social and emotional well-being.

- Multifaceted: including classroom-based learning and skills acquisition reinforced by the social and physical environment of the school.

- Participative: involving teachers and other staff, pupils, parents and external agencies in all stages of planning, development and evaluation.

- Sustainable: having long-term plans, building on existing good practice, and integrating into the life of the school.

Health Promoting Schools encourage review and self-evaluation to reflect on progress and identify planning priorities.

Case study research into the HPS (Inchley and Currie, 2003) has identified a number of important features for successful implementation of the Health Promoting School concept. These include:

Leadership

- Active support of senior management.

- Identification of a named school co-ordinator.

- Enthusiasm and commitment of key members of school staff.

- Establishment of a Health Promoting School committee.

Local ownership

- Identification of local needs.

- Linking with and building on existing good practice.

- Appropriate training and support for school staff.

- Involvement of pupils in planning and implementation.

- Involvement of relevant parent bodies from the outset.

Communication

- Clearly defined aims and objectives.

- Clear, shared understanding of the Health Promoting School concept by the school community.

- Effective communication and dissemination channels.

- Sharing good practice through local networks and wider dissemination.

Partnership working

- Identification of key local partners.

- Establishment of partnership structures to allow for sharing of expertise and resources.

- A planned and co-ordinated approach to specialist input to curricular activities.

- Involvement of parents in planning and implementation.

Integration

- Long-term integration into school development processes, especially the school development plan.

- Establishment of monitoring and review processes.

Potential barriers to successful HPS implementation include:

- Lack of staff and curricular time.

- Existing staff workload.

- Lack of understanding and commitment to the Health Promoting School.

- Over-reliance on individual members of staff.

- Lack of support from teachers and parents.

- Lack of (or inconsistent) input from external agencies.

- Hierarchical management structures.

- Compartmentalisation of subject and topic areas.

The benefits of a Health Promoting School

Studies have shown that the Health Promoting School can have a positive impact on the social and physical environments of a school (Lister-Sharp *et al*., 1999).   Research findings also indicate that efforts to improve the health of students and their schools appear to enrich and improve education outcomes.

The Health Promoting School offers an approach that has the potential to increase the learning capacity of students (St Leger, 1999). Health Promoting School programmes are most effective when they are multi-faceted and the curriculum is integrated with broader school and community initiatives and when schools work in partnership with parents and local agencies.

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Websites   www.who.dk/ENHPS
                      www.hbsc.org

Chapter 4, Section 1

Growing And Changing

1.1   **Food for growth**

1.2   **Physical activity**

1.3   **Adjusting to puberty**

Section 1: Growing And Changing

Section Plan

Section	Related factsheets	Related Pre-Designed Training Sessions And Activities
Section 1.1 Food for growth	Factsheet 1: Eating patterns among European children and adolescents Factsheet 2: Physical activity and healthy eating guidelines for young people Factsheet 3: Energy balance Factsheet 7: Water	4. What will you have? 5. Food is for/I eat because 8. What information do children need?
Section1.2 Physical activity	Factsheet 1: Eating patterns among European children and adolescents Factsheet 3: Energy balance	21 Listing physical activities 22. Priorities and Consensus 23. What do I think? 25. Physical activity case study/scenario
Section 1.3 Adjusting to puberty	Factsheet 6: Biological changes in puberty	31. Puberty thought shower 32. Being different 33. Puberty storyboards

Section 1.1　　　　Food For Growth

Key points

- The amount of energy taken in through food and drinks, on a daily basis, should ideally be equal to the amount of energy 'burnt off' (expended) in physical activity and body functions.

- Energy (kilocalorie) needs increase during adolescence and peak in the mid to late teenage years, before reducing again in adulthood.

- Food satisfies our physical hunger, but also meets strong psychological, sensory and social needs.

- Promoting balanced eating is important at any time of life, but is particularly vital during childhood when habits for life are being established.

- Young people should be encouraged to drink adequate amounts of fluids.

The enormous growth that occurs in young people as they develop from infancy, through childhood, to adolescence and on to adulthood is dependent upon a number of key factors. Genetic inheritance, for instance, has great significance for growth and eventual height.   This chapter, however, concentrates on the contribution food makes to the growth process.

Food and growth

Normal growth requires large amounts of energy. Energy - measured in kilocalories (kcal) or kilojoules (kJ)[1] - is provided through the food and drinks young people consume.   It is important for healthy growth that the amount of energy taken in through food and drinks is equal to the amount of energy 'burnt off' (expended) in physical activity and body functions - in other words, being in 'energy balance' (see Factsheet 3, *Energy balance*).

In adults, the degree to which energy intake and output are balanced determines weight gain or loss.   In addition, in children, it is necessary to take account of the energy intake required for rapid growth.   For more information on energy balance, see Factsheet 3, *Energy balance*.

Energy acquired through ingesting food and fluids is used for a variety of purposes by the body:

- To support normal growth.

- To repair damaged tissues.

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[1] The standard unit of measurement of energy is the kilojoule. However, as kilocalorie (conventionally shortened to Calorie) tends to be used more commonly, we shall adopt the use of kilocalorie in this resource. One kilocalorie = 4.2 kilojoules.

- To fuel normal body functions such as the heart beating and temperature regulation.

- To fuel the activities of the brain.

- To enable the young person to participate in physical activity.

The amount of energy each individual requires will be determined to a large extent by how active he or she is. Energy need rises during adolescence and peaks in the mid to late teenage years, before reducing again in adulthood. Between the ages of 15-18, therefore, boys and girls need more energy than full-grown adults. A guide to average energy intakes is shown in Box 1.

Box 1 - Estimated average energy requirements (UK DoH, 1991)		
Age	Boys (kcal/day)	Girls (kcal/day)
7-10 years	1970	1740
11-14 years	2220	1845
15-18 years	2755	2110
Adults 19-50 years	2550	1940

As can be seen from Box 1, requirements increase with age through adolescence, reflecting the amount of energy needed to ensure normal growth and meet the demands of physical activity levels as the young person grows. But the values given in the box are average values only - while boys in general tend to be more active and have a more active metabolism, some girls will need as much energy as boys.

While the focus of this chapter will be on food and its relationship to growth, it's important to remember that eating should be enjoyable, and fun. Food satisfies physical hunger, but also meets strong psychological, sensory and social needs. For instance:

- Food can be a catalyst for social interaction - people use mealtimes as a time to get together and talk

- It provides the centre-piece for many celebrations and social occasions

- It offers a way to give rewards and to express love, affection and appreciation

- Food and eating can be a source of exquisite pleasure

- Food provides opportunities to have new experiences and to learn about different cultures.

Young people should be helped to value food and understand its importance beyond meeting physical need. From this, a respect for food may grow which will help them to make better health-related choices.

Balanced eating

Promoting balanced eating is important at any time of life, but there is evidence that it is particularly vital during childhood, because:

- Food preferences are learned and established early in life.

- Poor eating patterns in childhood can have harmful effects on health, increasing the chances of diabetes, heart disease, cancers and hypertension in later life.

Rising levels of obesity have led to concern over the amount of fat consumed by young people. Fats and oils are important components of the food we eat as they are:

- Very effective providers of essential energy.

- Part of the structure of the cell membrane of every living cell in the body.

- Part of the structure of nerve and brain tissue.

- Providers of insulation for the body, helping to regulate temperature control.

- Essential for normal reproductive development.

But some types of fat, primarily saturated fat, can be damaging for the heart and circulation.

High-fat foods are common and well-loved components of the food intake of many people. It would not be advisable to try to deny fats to children and young people completely. The amount of energy consumed must be sufficient to support the young person's growth and activity level. Fats are unquestionably valuable in meeting this need, and do so without the damaging effect on teeth typical of sugar, the other main high-energy food.

To achieve a healthier balance, however, the amount of energy derived from high-fat foods should be reduced and the amount coming from *complex carbohydrates* increased.

This can initially seem confusing to some young people who are aware that sugars are a type of carbohydrate, and who may believe that they are being encouraged to eat more sugar. A distinction should be made between the simple sugars found in sweet confectionery and soft drinks, which are concentrated energy sources and are damaging to teeth and gums, and the *complex carbohydrates* found in starchy foods such as pasta, rice, bread, potatoes and cereals.

Current advice is to encourage children and young people to eat complex carbohydrates more frequently - indeed, half the energy consumed should be derived from these kinds of foods. Starchy foods have the advantage of being 'good fillers' and release energy slowly for body requirements as needed. Children and young people can be encouraged to eat generous portions to satisfy their hunger and meet their increasing energy requirements.

Essentially, the aim is to help the young person to eat a sufficient variety of foodstuffs to ensure enjoyment and the provision of adequate energy and nutrients to meet his or her

needs, but also to develop balanced eating patterns. (see Factsheet 2, Physical activity and healthy eating *guidelines for young people*).

Fluids

Young people should be encouraged to drink adequate amounts of fluids, in particular water and low-fat milk, which are the safest drinks for teeth. Water is essential to ensure that bodily functions and activities are carried out efficiently (see Factsheet 7, *Water).*

Vitamins and minerals

Calcium, magnesium and phosphates are essential for bone growth and strengthening, especially during puberty. Bone development during puberty plays a major part in ensuring that a satisfactory maximum bone density can be reached in early adulthood, which may reduce the risk of osteoporosis developing in later life. Adequate amounts of minerals and vitamins are necessary, and proteins ensure bones are flexible and not brittle. In addition adequate levels of physical activity are necessary to develop and maintain satisfactory levels of bone density.

The main sources of calcium are milk and dairy products such as cheese and yoghurt. Low-fat versions of these products contain as much calcium as full-fat varieties. It is difficult for children to meet the recommended daily intake of calcium (Box 2) without consuming dairy products, but for those who either dislike, are allergic to or choose not to eat them, dark green leafy vegetables, calcium-enriched soya milk, tofu and sesame seeds are also rich sources.

Iron is vital for many normal growth and body functions. Most significantly, it is a component of haemoglobin, the red pigment in the blood that carries oxygen to the body tissues. Increased dietary iron is necessary for girls after the onset of periods to compensate for menstrual blood losses (Box 2).

Young people with iron deficiency anaemia, due to inadequate dietary iron, may suffer from attention deficit, tiredness and reduced cognitive function.

Box 2. - Reference Nutrient Intake (RNI)* for calcium and iron for girls and boys			
Mineral	**Age**	**RNI (per day)**	
Calcium	7-10 years	550mg	
	11-18 years	Girls	Boys
		800mg	1000mg
Iron	7-10 years	8.7mg/day	
	11-18 years	Girls	Boys
		14.8mg	11.3mg
* The RNI is the amount of a nutrient effectively sufficient to meet the requirements of all children, taking into account their differing needs.			

A good source of iron is red meat, and it is also found in green leafy vegetables, dried fruits, pulses and fortified breakfast cereals. The iron in red meat is more easily absorbed than that found in the other foodstuffs listed. Iron is absorbed better if these foods are eaten at the same time as foods rich in vitamin C (see Box 3).

A description of key vitamins that have a bearing on healthy growth (as well as many other bodily functions) is given in Box 3, and minerals in Box 4.

In general, most vitamins are needed in only very small amounts, and eating a variety of foods should provide sufficient quantities to support healthy growth.

Box 3. - Vitamins And Healthy Growth	
Vitamins and functions	**Sources**
A • Maintains and repairs tissues • Essential for immune function, normal and night vision	As retinol (which is pre-formed vitamin A): milk, fortified margarines, cheese, egg yolk, liver, fatty fish. As carotenes (which are transformed into vitamin A in the body): vegetables and fruit, especially carrots, tomatoes and green leafy vegetables, mangoes, apricots.
B1 (thiamin) • Energy release from carbohydrate, fat and alcohol • Important for brain and nerve function	Potatoes, all cereals, bread, milk and dairy products, meat and meat products, vegetables.
B2 (riboflavin) • Energy release from carbohydrate, fat and protein • Normal growth	Milk and dairy products, fortified breakfast cereals, potatoes, fish.
Niacin • Energy release	Meat and meat products, milk and dairy products, bread, fortified breakfast cereals, potatoes, fish.
B6 (pyridoxine) • Protein metabolism • Formation of healthy blood	Many foods, especially potatoes, breakfast cereals, meat, fish, eggs.
B12 (cyanocobalamin) • Formation of healthy blood cells and nerve fibres	All animal foods: meat and meat products, milk and dairy products, fish, eggs. Also fortified breakfast cereals and yeast extract.
Folate (or folic acid) • Formation of blood cells • Reduces risk of neural tube defects (such as spina bifida) in early pregnancy	As folate: green leafy vegetables (sprouts, spinach, green beans, peas), potatoes, fruit (especially oranges), milk and dairy products. As folic acid: fortified breakfast cereals, bread, yeast extract.
C • Structure of bones, cartilage, muscle and blood vessels • Aids wound healing and iron absorption	Fruits (especially citrus fruits), fruit juices, green vegetables, peppers, tomatoes, potatoes.

• Acts as an antioxidant (protecting cells from damage from oxygen, which can cause heart disease and cancer)	
D • Promotes absorption of calcium from food • Essential for bones and teeth • Helps maintain heart action and nervous system	Fortified margarines and spreads, oily fish, meat, egg yolk, fortified breakfast cereals. Also formed in the skin by the action of sunlight.
E • Acts as an antioxidant	Vegetable oils, margarines, wholegrain cereals, nuts, green leafy vegetables.
K • Essential for normal blood clotting	Dark green leafy vegetables, vegetable oils, cereals, meat.

Source: (FSA Scotland/SEHD, 2002)

Box 4 – Minerals And Health Growth	
Minerals and functions	**Sources**
Calcium • Bone and teeth formation • Muscle contraction • Nerve function • Blood clotting	Milk and dairy products, bread, pulses, green vegetables, dried fruit, nuts and seeds, soft bones in tinned fish, water.
Magnesium • Component of bones and teeth • Nerve and muscle function • Energy release	Cereals and cereal products, green vegetables, milk, meat, potatoes, nuts and seeds.
Phosphate (phosphorus • Bone and teeth formation	Mild and dairy products, bread, red meat, poultry.
Potassium • Controlling balance of body fluids • Muscle and nerve functioning	Vegetables, potatoes, fruit, fruit juices, bread, fish, meat, milk, nuts, seeds.
Sodium • Maintains normal fluid balance • Nerve functioning • Muscle contraction	Processed foods, bread, cereal products, breakfast cereals, meat products, pickles, canned vegetables, tinned and packet sauces/soups, packet snack foods, salt added during cooking and at the table.
Iron • Blood cell formation	Meat, meat products, cereal products, vegetables, pulses.
Zinc • Protein, carbohydrate and fat metabolism • Taste • Normal growth • Wound healing	Meat and meat products, milk and diary products, bread and other cereal products, eggs, beans, pulses, nuts.
Copper • Component of a number of enzymes	Shellfish, meat (especially liver), bread and cereal products, vegetables, water.
Selenium • Bone and teeth formation	Cereals and cereal products, meat, fish, Brazil nuts, shellfish.
Iodine (Iodide) • Regulation of growth, development and energy expenditure	Fish, sea vegetables (such as kelp), milk and dairy products.
Fluoride (Fluorine) • Constituent of bones and teeth • Protects against tooth decay	Tea, fish, water.

Source: (FSA Scotland/SEHD, 2002)

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Section 1.2   Physical Activity

Key points

- Children should be encouraged to recognise the value of lifestyle activities such as walking, in addition to valuing more formal sports, dance and physical activities. Physical activity is not only about organised exercises and PE lessons.

- Children and young people should accumulate *at least* one hour of moderate physical activity most days of the week.

- The challenge for teachers and parents is to maintain and develop children's early enthusiasm for being active.

- Activities that are chosen and enjoyed are more likely to result in continued participation than those that are enforced.

- Reported physical activity levels among 11-15 year olds in Europe remain below recommended levels.

- Physical activity has beneficial effects on emotional well-being and self-esteem.

Physical activity is necessary for all areas of functioning in our life - walking, lifting and carrying, pulling and pushing doors, playing, dancing and taking part in sports.

We often use the terms physical activity, physical fitness and exercise interchangeably in everyday language, but they actually have different meanings.

Physical activity is about bodily movements produced by muscles that result in energy expenditure. This would include activities as diverse as walking, helping around the house, climbing stairs and sprinting in a race.

The standard definition of **physical fitness** is a set of attributes that people have or achieve and that relates to their ability to perform physical activity (Casperson *et al.*, 1985). It relates to factors like endurance, strength, power, speed, flexibility, agility, balance, reaction time and body composition.

We can also think about physical fitness under two headings:

- *Performance-related fitness*, often applied to sports performance or to the fitness required in specialised occupations such as the fire service and the armed forces

- *Health-related fitness*, which is about enhancing health and preventing disease. It includes aerobic fitness, cardio-respiratory endurance, muscular strength, body composition and flexibility.

The term **exercise** is used to describe planned, structured and repetitive movements - such as sit-ups and push-ups - that are usually done to improve or maintain specific aspects of fitness.

In a health-promoting environment, we are concerned most with *physical activity* and *health-related fitness*.

Physical activity for children

The main messages for children and young people are:

- Moderate intensity activities are good for you.

- Be active for at least … one hour a day if you are a child or young person.

Promoting the health-related aspects of children's physical activity is not as daunting as it might at first seem.   Many activities are already very appealing to children; for instance:

- Running, jumping and skipping - all of which can help to develop aerobic fitness.

- Lifting, carrying, pushing and pulling - actions that require muscular exertion and build strength.

- Reaching, stretching and bending - activities that are effective in maintaining and promoting flexibility (see *The Class Moves!* (HEBS, 2002).

Indeed, some of the most mundane day-to-day-activities - those which children and young people may not consider to be 'activities' at all - can also cumulatively contribute to improvements in people's energy balance. Box 5, *Getting Fitter is Easier than You Think* (Health Scotland, 2004) sets out the kilocalorie expenditure on a range of everyday activities, illustrating the extraordinary discrepancies between the 'sedentary' and 'active' ways and translating this into potential weight loss over twelve months.

The challenge for teachers and parents is to maintain and develop children's early enthusiasm for being active.   In a Health Promoting School, this not only means taking maximum advantage of the opportunities for children to be physically active, but also addressing the broader issues at play - knowledge, understanding, behavioural skills and the development of positive attitudes and confidence for lifelong physical activity.

The physical changes boys and girls go through during puberty may affect their ability to participate in activities.   Pre-puberty, there is little difference in body strength between boys and girls, but boys develop a marked increase in muscle strength during puberty and, to a lesser extent, the later teenage years.   There appears to be no comparable 'spurt' in girls' muscle strength during their adolescent years, with strength tending to increase at the same rate as it did pre-puberty (Armstrong and McManus, 1998).

Boys and girls also tend to develop strength in different parts of the body.   For boys, the main development seems to be in shoulder and upper-body strength, allowing them greater

leverage and more powerful arms.   Girls tend to experience broadening of the hips, giving them a lower centre of gravity and, consequently, greater stability and ability to manoeuvre.

Physical activity has a significant role in disease prevention and contributes to the development of healthy personal and social growth.   The commonly held perception of physical activity being mainly about organised sport and PE needs to be balanced with a more ecological view that places physical activity as an integral part of living, and something that is essential for the healthy completion of tasks for daily living.

Box 5. - Getting Fitter Is Easier Than You Think (Health Scotland, 2004)			
The Sedentary Way		**The Active Way**	
Activity – ADD KJouls	**Kcals**	**Activity – Add KJouls**	**Kcals**
• Use remote control to change TV channel	<1	• Getting up and changing the TV channel	3
• 30 minutes of phone calls (reclining)	4	• Standing 30-minute phone call	20
• Hiring help to clean and iron	0	• 30 minutes of ironing, 30 minutes of vacuuming	152
• Heat a microwave meal	0	• 30 minutes of cooking	25
• Buying pre-sliced vegetables	15	• Prepare veg	10-13
• Using a leaf-blower for 30 minutes	0	• Rake leaves, 30 minutes	150
• Hire a gardener	100	• Garden or mow lawn, 30 minutes	360
• Using a car wash once a month	0	• Washing/waxing the car for 1 hour per month	300
• Letting the dog out the back door	18	• Walking the dog for 30 minutes	125
• Drive 40 minutes, walk 5 minutes (parking)	2	• 15 minute walk to bus stop	60
• E-mailing a friend, 4 minutes	22	• Walk 1 minute, talk 3 minutes (standing)	6
• Taking lift up 3 flights	2-3	• Walking up 3 flights of stairs	15
• Park at door of supermarket	0.3	• Park and walk 2 minutes	8
• Take escalator 3 times	0.3	• 1 flight of stairs 3 times a week	15
• Watch TV for 1 hour	2	• walk and shop ,1 hour	145
Sedentary Way monthly total	**1,700**	**Active Way monthly total**	**10,500**
The difference of 8,800 Kcals per month is the energy equivalent of losing or gaining 2.5 pounds per month or 30 pounds per year.			

Physical Activity Recommendations For Children And Adolescents

Current physical activity targets for adults (30 minutes moderate activity on most days) are based on the minimum amount of activity required to provide protection from cardiovascular diseases. The targets are backed by consistent research findings which indicate that being inactive or sedentary increases the risk of coronary heart disease, independent of other factors such as diet or smoking.

Activity guidelines for *children* are more complicated to determine, for a number of reasons (Box 6).

Box 6. - Determining Activity Guidelines For Children

- When children's fitness levels are measured, even inactive children may have scores that indicate they are fit. Children have a natural cardio-respiratory fitness because of the biological efficiency of their bodies.

- There are difficulties in obtaining reliable measures of how active children are. Their activity is often spontaneous and undertaken in short bouts.

- Many of the diseases physical activity protects against do not occur in childhood, and few research studies have tracked childhood activity into adult health.

Despite these complications, there are three main arguments for promoting physical activity in children, each of which has some theoretical basis:

- Active children are likely to be healthier children.

- Active children are more likely to become active adults.

- Active adults are likely to be healthier adults.

Current guidelines for physical activity for children and young people, established by an international group of experts in 1997 (HEA, 1998) state that children should accumulate (build up) at least one hour of moderate activity on most days of the week.

Research evidence suggests, however, that many young people in Europe are not sufficiently active to meet these guidelines.

There is no optimal amount of activity that can be defined precisely, but one step is always better than none at all. And activities that are chosen and enjoyed are more likely to result in continued participation than those that are enforced.

Recent Trends In Children's Activity Levels

As stated in Box 6, there are difficulties in obtaining accurate measures of children's activity levels. There have nevertheless been two important studies in Scotland relating to children's activity levels.

The World Health Organization supports a cross-national research study - the Health Behaviours of School-aged Children (HBSC). This study, started in 1986, surveys school children aged 11, 13 and 15 years across Europe and North America every four years. Although the survey includes only a few questions about physical activity, it is the only national survey to date to provide any information about trends in physical activity levels for under-16 year-olds.

Throughout this period, persistent gender and age differences have been found. Boys consistently report higher levels of physical activity than girls at all ages. In more than half of countries included in the HBSC study, this gender difference exceeds 10%. (Figure 1 below). Similarly consistent is a decrease in physical activity participation with age, with 15-year-olds reporting lower levels of activity than 11-year-olds. Cross-nationally, the proportion of boys meeting the MVPA guideline decreased from 44% at age 11 to 35% at age 15. Among girls, 33% of 11-year-olds met the guideline compared with 22% of 15-year-olds. Only in four European HBSC countries is this decline with age not seen: France, Netherlands, Switzerland and the Former Yugoslav Republic of Macedonia (Roberts et al., 2004).

Figure 3
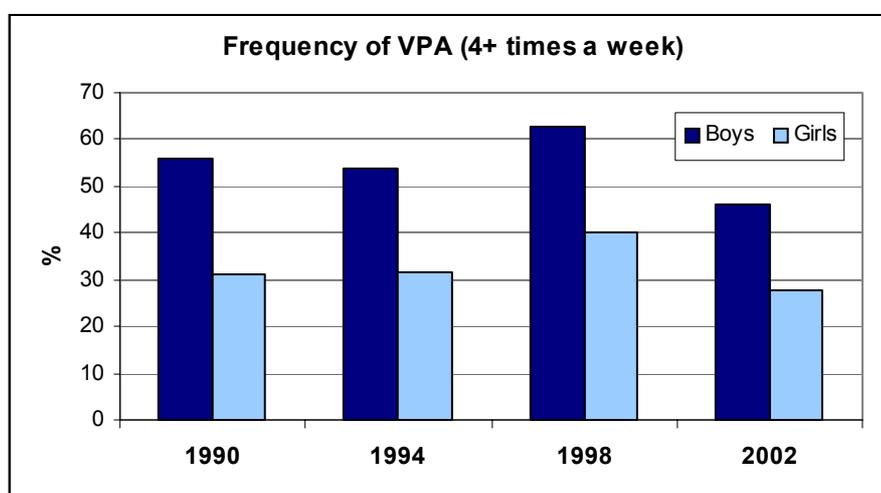
Data on moderate to vigorous physical activity (MVPA) indicate that a substantial number of young people do not meet the current recommendations for 60 minutes MVPA on five or more days a week. On average, about a third of all young people (34%) report levels of physical activity which meet the current guideline. Levels of activity vary, however, between countries. For example, the proportion of boys meeting the guideline ranges from 26% in Belgium to 57% in Ireland. For girls, the proportion ranges from 12% in France to 44% in the USA. There is no clear geographical patterning of physical activity within Europe. Countries consistently in the top quartile for MVPA (across all age groups) include England, Northern Ireland and Lithuania. Those consistently in the lowest quartile include Belgium, Estonia, France, Italy, Norway and Portugal (Roberts et al., 2004).

There is very little data about the impact of ethnicity or disabilities on activity, but some evidence indicates that both of these factors can negatively influence the amount and the type of physical activity young people pursue.   In particular, the research highlights the reluctance of some adult supervisors to recognise that most physical activities are suitable for all children.   Many children with disabilities can adapt activities to suit themselves and need not be left out.

The surveys and research studies provide valuable information about children's activity levels, but it's important that inactive girls or boys are not categorised as 'not liking' physical activity.   The question should be asked as to whether the opportunities provided for them are relevant to the types of physical activity they enjoy.

Is the right balance between offering creative and expressive physical activities and more performance-oriented and competitive activity being struck?   Are lifestyle activities such as walking to school, helping with physically active chores or taking part in playground games recognised and rewarded?

Children should be encouraged to recognise the value of these broader lifestyle activities, in addition to valuing more formal sports, dance and physical activities.   Lifestyle activities can be made more easily accessible to children who perhaps lack confidence in formal sport contexts as a result of poor body image, weight issues or poor motor skills development.

Impacts Of Being Physically Active

Physical health

The major diseases associated with an inactive lifestyle tend to become apparent in adulthood (coronary heart disease, stroke and osteoporosis) and therefore cannot be used as an outcome measure in studies of children and their activity levels.

But even if sound research evidence on the links between children's activity and the development of major health problems is lacking, there are nevertheless some physiological processes worth considering.   These are discussed in Box 7.

Box 7. - Impacts Of Activity On Physical Health

Skeletal health and growth

- There is some evidence to suggest that children's play activities - in particular jumping and skipping - promote strong, healthy bones through increased bone mineral density (BMD).

- Increased BMD provides a stronger skeletal frame, which protects against many injuries throughout life and may reduce the risk of osteoporosis in later life.

Prevention of overweight and obesity

- There are three reasons why it is important to consider the potential of physical activity both to prevent and to treat overweight children:
  º Obesity is a major risk factor for diseases such as diabetes and atherosclerosis (narrowing of the arteries).
  º Obesity in children tends to track into adulthood.
  º Adults who were obese as children have increased health problems.

Developing health-promoting behaviours

- Developing healthy behaviours in early life to avoid health problems in later life should be the primary focus.

- Learning basic motor skills (such as riding a bicycle and developing hand-eye co-ordination) will increase children's confidence and enjoyment, and is more likely to lead to regular physical activity.

Emotional well-being

When considering the benefits of physical activity to children's emotional well-being, a broad view that includes the promotion of emotional well-being and cognitive and social development should be taken. For instance:

- Studies in this area have shown consistent and positive relationships between physical activity and promotion of emotional well-being, particularly in relation to self-esteem (Health Education Authority, 1998).

- Research suggests that more active children have a greater sense of emotional well-being than less active children (Steptoe et al., 1996).

- In one Scottish study, a quarter of children said that 'doing sport made them feel happy and good about themselves' (Gordon and Grant, 1997).

Cognitive development

A number of studies have shown that even when curricular time or free time for study is reduced, academic performance is maintained or even enhanced by increases in students' levels of physical activity (Shephard, 1997).   The ability to concentrate and learn may improve with physical activity due to:

- Increased cerebral blood flow.

- Changes in hormone levels.

- Relief of boredom from sedentary classroom activity.

- Increased self-esteem.

Social development

There are few proven outcomes in the research in this area, but data suggest a considerable potential for play, games and sports to encourage positive social development.   There is clear potential to use group contexts for physical activity to develop leadership responsibilities and co-operation with classmates.   Many sports and games provide an opportunity for children to engage with other children and adults in ways that are different from the standard teaching environment.

The precise mechanisms linking physical activity to positive mood and emotional well-being are not entirely clear, but biochemical, physiological and psychological explanations have been suggested.   Prominent among these is the notion of physical activity causing an increased production of endorphins, one of the groups of substances in the body responsible for creating the 'feel-good' factor.   But the fact that physical activity tends to have a positive impact on self-esteem is also important.

Factsheet 1, *Current eating patterns among European children and adolescents,* and Factsheet 3, *Energy balance,* have more detail.

Nutritional requirements for active lifestyles

Regular, varied meals will provide the required nutrients and energy for regular daily physical activity and for most sports undertaken by children and adolescents.   The timing of sports sessions can sometimes mean that meals are delayed or missed - it is important that children learn to plan ahead for these occasions.   Carrying healthy snacks and some water with their sports/activity kit is advisable.

There is no need for children to take nutritional supplements, high-energy foods or special 'sports drinks' simply because they participate in sports.   Food and fluid intake will need to be considered more carefully only if a child is training and competing at a high level. The child should have access to a sports coach in this instance, who can advise on food and nutrition issues.   If necessary, specialist advice from a sports dietitian should be sought.

Implications for a Health Promoting School approach

There are many things in addition to the direct provision of sports and games facilities that schools can do to promote physical activity.   Schools can:

- Encourage staff, parents and students to walk or cycle to school.

- Act as advocates for local environments which are attractive to young people for physical activity (safe places to play, safe routes to school, bicycle training and secure bicycle parking facilities).

- Encourage participation in community activities (through, for instance, the provision of an activities noticeboard).

- Recognise and celebrate cultural diversity (by encouraging parents, staff and pupils to lead or teach ethnic dances and games, for instance).

- Provide adequate changing and showering facilities.

Thinking of activity from this broad perspective opens many opportunities for links with issues such as sustainable living, active transport, good health and promoting independence.

The largely spontaneous physical activity of children at home, at school, in the streets and parks is fundamentally a healthy behaviour. Their chasing, wrestling, climbing and other games should be encouraged and supported.

Support for safe physical activity is, of course, paramount. But a balanced approach which reflects the potential of physical activity to contribute to a life of healthy independence should be adopted.

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Section 1.3   Adjusting To Puberty

Key points

- Puberty is not a purely physical transition, but also has important social, emotional and cognitive aspects.

- The age-range for development of puberty is wide, with great variety in the sequence and tempo of developmental changes and huge variation in resulting body shapes and sizes.

- The development of primary and secondary sexual characteristics and hormonally influenced moods and feelings can lead to a range of emotional reactions in girls and boys, including pride and embarrassment.

- Puberty and associated bodily changes result in a wide range of changes in people's reactions to the young person and in their relationships and popularity with peers.

- For most age groups, the social context fits the majority of 'on-time' pubertal developers best. Consequently, those who are 'off-time' may experience more risk of difficulties.

- Providing effective support, advice and education on puberty is an essential challenge for health education.

Puberty affects many aspects of young people's lives and consequently is a central issue for all teachers.

The transition through puberty signals the change from being a child to being an adolescent, and brings with it a range of bodily developments that are often significant both to the child and those around him or her.

These changes occur during a phase of development that is also marked by transitions in social relationships and friendships.   During late childhood and early adolescence, individuals become increasingly involved with and concerned about their peer groups and make social comparisons between themselves and other children.   The co-occurrence of these important physical and social developments means that children are not only coming to terms with changes in their own body and associated moods and feelings, but are also comparing their development to that of children around them.

As teachers know, late childhood and early adolescence are marked by significant improvements in cognitive ability, giving children the ability to reason about their bodies and their development in more complex ways than was possible earlier in childhood.   But it can also coincide with a falling-off in motivation for learning, particularly for young people who have found learning challenging or who have concerns about their future. Puberty is not, therefore, a purely physical transition, but has important social, emotional and cognitive aspects as well.

Getting used to a changing body

Adapting to a changing body is challenging to a young person. At a very basic level, pubertal development leads to fast changes in actual body shape and size, changes that are not always fully mapped on to changes in the child's mental representation of his or her body. This can lead to temporary 'clumsiness' as children over- and under- estimate their body's dimensions as they move around (see Box 8, 'Growing pains').

Box 8. Growing Pains

After headache, *growing pains* are the most frequent form of pain found in otherwise healthy schoolchildren, affective one in every six children aged 6-11 years, predominantly girls. Despite their name, the pains probably have no association with growth, except that they do not usually persist after the child reaches his or her final height.

The child usually complains of intermittent pain deep in the muscles of the arms and/or legs, generally in the front of the thighs, in the calves and behind the knees, away from the site of joints. He or she may also feel restlessness in the arms or legs. The pains range from a mild ache, sometimes associated with tiredness, to severe pain that may waken the child from sleeping. No cause can be found.

The discomfort may come on suddenly or gradually, does not occur every day, and affects the child late in the day and in the evening. It has usually gone by the morning. In older children, the pain may resemble cramps, 'creeping sensations' or restless legs (Brown and Kelnar, 2001).

Osgood Slater Syndrome has a similar appearance, primarily affecting boys and girls aged 11-18. It presents with pain below the knee (generally in one leg only) and tends to occur in very strong, active boys, often following forceful physical activity (running or jumping, for example). Mild analgesics and encouraging the young person to avoid vigorous weight-bearing physical activity until the pains subside (generally within one to two years of onset) is the best method of treatment (Werner, 1999).

While uncomfortable and sometimes distressing for the child, growing pains are harmless and self-limiting. Medical advice should be sought where they are persistent, affect the joints or are accompanied by redness or swelling, as a more serious condition may be present.

Children can be self-conscious about their bodies as they progress through puberty and develop concerns about being 'normal'. They sometimes have anxieties about when puberty should begin, what changes should occur, when puberty should be expected to end, and what a new adolescent body will be like. As Factsheet 6, *Biological changes in puberty,* explains, there is a wide range in age at which children can begin puberty, great variety in the sequence and tempo of developmental changes, and huge variation in resulting body shapes and sizes. It's therefore not surprising that many young people experience uncertainty and apprehension about puberty (Coleman and Hendry, 1999).

At the social-psychological level, the development of primary and secondary sexual characteristics and hormonally influenced moods and feelings can lead to a range of emotional reactions, including pride and embarrassment. Girls often find that early breast development can make them self-conscious and that people's insensitive reactions to breast development can exacerbate these feelings (Silbereisen and Kracke, 1997). There is also much sensitivity and concern about menstruation.

Although there is comparatively little research on boys' reactions to puberty, there is evidence that 'wet dreams' and first ejaculation can cause great embarrassment and confusion.

Schools can play a key role in educating young people about sexual development and puberty.   Data from Scotland revealed significant gender differences in where young people access their information, and schools have a particularly important role with boys as they are less likely to discuss the issues with friends and parents (Todd et al., 1999).   It is important that sex education should be seen as more than preparing young people for coping with changes that may be seen as problematic.   There is great potential for the young person to develop a sense of pride and respect in his or her developing body.

Body image, self-esteem and puberty

One of the most obvious adjustments to puberty involves changes in body image and related self-esteem.   During early adolescence, individuals measure their own self-worth to varying and, in some cases, to a great extent on their physical appearance.

When girls reach puberty, their bodies often develop in ways that do not reflect Western society's apparent preference for thinness.   The natural increase in body fat and related changes in body shape throughout puberty often lead young teenage girls to be less satisfied with their body, and consequently to develop a poor body image.   This in turn can lead to reductions in self-esteem.   Other aspects of puberty, such as increases in the oiliness of skin and appearance of spots, might also lead to poorer self-image and increased self-consciousness.

Conversely, as boys mature, the development of a relatively muscular physique, body hair, and a deepening voice may lead to a rather more positive body image (Silbereisen and Kracke, 1997).

The links between puberty, self-image and self-esteem are complex.   The timing and rate of physical development, gender, culture and the reactions of those around them will all have an impact on how the child's body image and self-esteem develop during puberty (see Section 3, *Image and Reality*).

Puberty and relationships

Puberty and associated physical development result in a wide range of changes in people's reactions to the young person and in their relationships and popularity with peers.   Interactions with parents and shared activities may subtly change.   Puberty may be associated with more conflict with parents, greater conflict in the family as a whole and lower satisfaction in parental relationships, although the extent and seriousness of these problems will vary.

Friendships with peers and group activities may also alter as children begin to develop more emotional and sexually oriented relationships with peers.   Inevitably, teachers will also adjust their interactions and treatment of young people in response to their evident maturity.

Being an 'early' or 'late' developer

One of the main issues influencing how well adolescents adapt to puberty is its timing relative to the development of the child's age group.   In typical adolescent development,

each age group shows a wide range of pubertal development.   Among 11 year-old girls, for example, one child may have started menstruating and have well-developed breasts, while another child in the same class may not exhibit any observable signs of pubertal development.

Those at the stage of maturation reached by the majority may be described as being 'on-time'.   Those comparatively small numbers of children not in this group may be considered comparatively 'early' or 'late' - 'off-time' in their pubertal timing.   Clearly, then, pubertal development occurs in a *social context*, and this is crucial for the child's adjustment to puberty.

Research has tended to focus on the problems faced by children who are relatively 'off-time' in their pubertal development.   There are several theories about the effects of being 'off-time' on psychological adjustment (Connolly *et al*., 1997).   One predicts that any children who are not 'on-time' will experience adjustment difficulties simply because they are different from the norm for their age.   An alternative theory is that 'early' developers will be the group who experience most problems because their physical development is more advanced than their social or cognitive competencies, resulting in difficulties in coping with the challenges of puberty.

Taking a slightly different approach, it has been suggested that as long as the timing of physical development matches the social context of development, there will be a 'goodness of fit' between the adolescent and his or her social environment, with few developmental problems.   Female ballet dancers and gymnasts, for example, may develop relatively 'late' compared to their age group, but there is nevertheless a 'good fit' between their development and the social context of their chosen activities.

For most age groups, the social context fits the majority of 'on-time' developers best. Consequently, those who are 'off-time' may experience more risk of difficulties.   A final idea on the effect of timing is that children have a mental model of the age at which puberty 'normally' occurs, and are more likely to experience adaptive difficulties if their development differs from their mental model (Bee, 1998).   Each of these broad theories has found some support from research evidence, and each adds to our understanding of the psychological impact of puberty on the growing child.

Puberty and problem behaviours

The teenage years are often associated with what adults may perceive as a range of 'problem' behaviours that are sometimes (although not always) considered to be concrete signals that the child is not adapting well to his or her development or social context. As a result, many studies have examined how 'early' and 'late' puberty is related to 'problem' behaviour in an effort to explore adolescent adjustment.

'Early' developing girls and boys are more likely to experience emotional difficulties, including anxiety and depression, compared to their age-peers. There is also growing evidence that 'early' development in particular is especially problematic for girls. 'Early' developing girls also exhibit higher rates of eating disorders such as anorexia. Unpublished Scottish research data show that 'early' developers are more likely to smoke cigarettes, drink alcohol and use illicit drugs than 'on-time' developers. These behaviours may be a form of coping mechanism, or they may be the result of 'early' developing children participating in older peer group activities.

'Late' developers have also been reported to have an increased risk of problem behaviours. 'Late' and 'early' developing boys show increased rates of delinquency, including school opposition behaviours, compared to 'on-time' age-mates (Williams and Dunlop, 1999). 'Late' developing boys may also show excessive alcohol drinking as a means of gaining prestige within the peer group.

The underlying causes of these adaptive problems are complex and seem to differ depending on the particular problem at issue. Importantly, although 'off-time' puberty increases the risk of behaviour and psychological problems, not all such children will develop problems. A range of other factors in the 'off-time' developing child's life, including their own personal coping resources and the support they receive from others, will determine whether these problems arise. Clearly, both the home and school environments have an important part to play.

Challenges for the future

Puberty is a potentially confusing but also exciting developmental transition, and one that yields both costs and benefits for the young person.

Despite a comparative lack of research on the psychological consequences of puberty, especially among boys, there is mounting evidence that children are often ill-equipped for puberty. Problems can arise among a minority where development occurs out of step with age-mates (such as their school class or year group). This can be serious and can have long-term consequences for these young people.

There is a need for greater awareness of the risk of 'off-time' puberty for adjustment problems. The right support at the right time for these children may enhance their future development and adjustment. Providing effective support, advice and education on puberty is an essential challenge for health education and schools.

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Chapter 4, Section 2

Food And Young People

2.1   Food patterns and preferences

2.2   Overweight and obesity

2.3   Dieting

2.4   Eating disorders

Section 2: Food And Young People

Section plan

Section	Related Factsheets	Related Pre-Designed Sessions And Activities
Section 2.1 Food patterns and preferences	Factsheet 2: Physical activity and healthy eating guidelines for young people. Factsheet 4: Food initiatives in schools. Factsheet 5: Dental and oral health in young people. Factsheet 8: The media.	3. An enjoyable meal 5. Food is for/I eat because 6. That's me 7. Trends in food patterns
Section 2.2 Overweight and obesity	Factsheet 1: Eating patterns among European children and adolescents. Factsheet 2: Physical activity and healthy eating guidelines for young people. Factsheet 3: Energy balance. Factsheet 4: Food initiatives in schools.	24. A sorry tale 30. What it means to be overweight
Section 2.3 Dieting	Factsheet 1: Eating patterns among European children and adolescents. Factsheet 2: Physical activity and healthy eating guidelines for young people. Factsheet 3: Energy balance.	38. Body image – magazines 41. All change 43. Diet fads and fictions 44. Reasons for dieting 45. DIETING!
Section 2.4 Eating disorders		47. Eating disorder thought shower 48. Eating disorder case studies 49. Eating disorders – roles and responsibilities

Section 2.1   Food Patterns And Preferences

Key points

- Children who were breastfed as infants experience significant health benefits in childhood.

- Studies show that children who eat meals with their families consume more fruit and vegetables, drink fewer fizzy drinks and eat less fat.

- There is evidence that a significant proportion of young people across Europe, particularly girls, regularly miss breakfast.

- To foster a balanced diet, and one which is enjoyed, parents of young children should be urged to offer a wide range of foods with encouragement for the child to sample them.

- High consumption of sweets and soft drinks among the adolescent age group has important implications for the dental and oral health of this population.

Food choices are mediated by the variety of foodstuffs available and tastes acquired in the course of a lifetime.   Information about food from parents and peers or through the media, and cultural influences such as religious rites - Halaal meats, Kosher foods and fasting during Lent and Ramadan, for instance - determine to a large extent food likes and dislikes, and also *when* people eat. Biological processes that influence the level of our hunger are, of course, important. Indeed, there is some evidence that people are biologically 'programmed' to seek out sweet things to eat.   These can be over-ridden by cultural influences and learning.   Examples of these include religious fasting, food avoidance due to allergies, and avoidance due to choice (vegetarianism, for instance).

Eating well is a long-term investment in health, so it is the choices of food people make on a daily basis, that will have the greatest effect. The Global Strategy on Diet, Physical Activity and Health (World Health Assembly, 2004 p.8) recommends that populations and individuals should:

- Achieve healthy balance and a healthy weight.

- Limit energy intake from total fats and shift fat consumption away from saturated fats to unsaturated fats.

- Increase consumption of fruits, vegetables, legumes, whole grains and nuts.

- Limit intake of free sugars.

- Limit salt consumption from all sources.

Infant feeding

The first food choice for infants is usually made by parents, particularly mothers, who opt either to breastfeed or formula-feed their babies.   This may seem irrelevant in a consideration of the food patterns and preferences of school-age children, but this crucial

choice can have long-term effects on the young person.   Children who have been breastfed benefit from:

- Reduction in allergies.

- Reduction in risk of childhood infections.

- Improved active immune response (to immunisation, for example).

There is also some evidence to suggest a link between breastfeeding and enhanced cognitive development in pre-term babies (Lucas *et al.*, 1992), and a lower risk of obesity in childhood (Armstrong and Reilly, 2001; von Kreiz *et al.*, 1999).

Developing preferences in early life

Children in the pre-school years, especially at 2-3 years, often become suspicious when presented with novel, 'different-looking' foods.   Parents may despair about the lack of variety and adventure in their child's eating habits and worry about the adequacy of their diet.   But the child may be genuinely wary of taking something that he or she does not recognise and which might appear 'unsafe'.

Children come to like foods largely as a result of being offered them frequently. Regrettably, many parents will respond to a child refusing a particular type of food in early life by withdrawing the food from the child's diet, perhaps because they do not want to waste either food or money.   But experimental evidence shows the importance of continued exposure to foods in increasing their acceptability to children (Wardle *et al.*, 2003).

Seeing an influential role model eating and enjoying particular foods can be another effective mechanism in improving children's eating habits.   Children of nursery school age have started eating a previously unacceptable vegetable after sitting just two or three times at meal tables with children who eat the vegetable.

Strategies such as rewarding the child for eating a non-preferred food (cabbage, for instance) by offering a preferred food (such as ice-cream) seem to make sense from a parental viewpoint, particularly in the short-term, but in fact are counterproductive in the long-term.   The influence on the child's preferences tends to be the opposite of what is desired - invariably, cabbage becomes even less acceptable, while the liking for ice cream grows!   This provides solid support for not encouraging the use of sweets as a reward for a desired behaviour.

But completely banishing much-desired foods from the diet can be similarly counter-productive.   Foods that have been forbidden may be over-consumed when children finally have independent access to them and parental control over the diet wanes.   Parents should be encouraged to moderate, rather than totally ban, these foods.

To foster a balanced diet, and one that is *enjoyed*, parents of young children should be urged to offer a wide range of foods with encouragement for the child to sample them. New tastes should be introduced as rewards for eating existing favourites, rather than the other way round.

There are many companies only too eager to provide children with a large variety of cheap, sweet, fatty and salty foods.   Special children's menus offered by fast food chains

and restaurants also tend to concentrate on food choices that are high in fat and sugar. Against this background, parents and children need much support and advice to help them develop healthier eating habits.

Yet from as young as four years, children asked to draw the foods that keep people healthy will draw fruit and vegetables, and also make reference to not eating too many sweets.   It is the gap between this knowledge and their and others' behaviours, particularly when they move into adolescence, that is of concern.

Developing preferences in adolescence

As children move into adolescence, they acquire greater autonomy over food choices, with increasing opportunities for teenagers to select and purchase their own food and drinks outside the home.   Adolescent food choice is influenced by a wide range of factors, including social and cultural pressures, income, tastes, exposure to foods and food advertisements and personal concerns about weight and body size.

Advertising, especially on television, seems a particularly pernicious influence on children's and young teenagers' eating habits.   Research has shown that manufacturers target children's TV programmes through commercials for high-sugar, high-fat foods (Young, 2002).   The advertisements often contradict healthy eating advice. Some countries have taken legislative steps to limit this practice.

Differences in disposable income and other socio-economic factors also play a significant part in dictating preferences and influencing choices.   Children from poorer families generally have a less healthy diet than those from more affluent families, particularly in relation to fruit and vegetable consumption.   There are important issues of availability and cost that need to be addressed to ensure that people have access to a wide range of foods and, in particular, fresh produce at affordable prices.

General picture of dietary patterns

Food consumption among children and young people in Europe varies between countries and regions.   These cross-national differences are likely to be influenced by a wide range of factors, including historical precedents, cultural norms and traditions and food production (in particular, issues such as availability, freshness, taste, price, and food safety), advertising regulations and national policies.   The role of the family meal is thought to have a significant influence.   American studies show that children who eat meals with their families consume more fruit and vegetables, drink fewer fizzy drinks and eat less fat in food, both at home and away from home (Gillman, 2000).

But, in some countries, changes in family lifestyles have led to changes in the way families prepare and consume meals, and set family mealtimes have in many cases been replaced with a looser arrangement, with family members eating at different and irregular times. Some children rarely sit down for a family meal and instead eat food at frequent intervals - an activity known as 'grazing'.

There is also evidence that a significant proportion of schoolchildren skip breakfast on a regular basis.   Data from the Health Behaviour of School-aged Children (HBSC) study show that, on average, 69% of boys and 60% of girls eat breakfast every day on school days.   The trend towards missing breakfast is accelerating; this is particularly marked with girls, who may adopt breakfast-avoidance as a deliberate weight-reduction strategy.

The benefits of breakfast are well documented. Ruxton *et al.* (1996) found that breakfast contributed up to 14% of the energy (kilocalorie) intake of Scottish 7-8 year-olds, and 9-36% of the essential vitamins and minerals. Crawley (1993) found a higher intake of essential vitamins and minerals and a lower intake of fats in teenagers who regularly consumed a breakfast cereal.

Studies have also suggested that children who do not eat breakfast are less attentive in classes at school.   Skipping breakfast has been associated with mid-morning fatigue and can interfere with cognition and learning (Pollitt & Mathews, 1998).   Research also suggests that those who do not eat breakfast are more likely to consume high-fat snacks during the rest of the day (Resnicow, 1991).

Breakfast may not be the only meal some young people are 'skipping'.   In countries where lunch is provided at school, the experience can be hurried as a result of the short time allocated, the large number of pupils to get through the system, and lack of space within dining halls.   As a result, pupils may rely on food that can be eaten quickly and on the move (Inchley and Currie, 2003).

The motivation of young people is also important.   They may value the opportunity to get out to 'play' more than the opportunity to eat lunch.   Of course, the desire to get involved in physical activity is to be encouraged, but there is a need to be conscious of whether young people, in their enthusiasm, are either 'bolting' their lunches, taking the quickest (and not always healthiest) choice from the menu, or skipping lunch altogether.

Some may miss lunch in an attempt to lose weight or as a means of saving lunch money for other purposes, while other children, for a variety of reasons, may not have the opportunity to have a meal in the middle of the day.

Children who are missing vital meals may not be getting sufficient energy and nutrients, with consequent risks to their physical well-being and mental performance.

Developing healthy food choices

Current nutritional guidelines recommend that most food consumed should consist of starchy foods such as rice, pasta and potatoes, and fruits and vegetables.   Smaller amounts of protein and low-fat dairy produce are also important.   Minimal amounts of foods high in saturated fat or sugar should be consumed.   Such foods are not necessary for a healthy diet and can safely be omitted altogether if this is feasible, or used as occasional treats.   It is also important to drink adequate fluids, sufficient to prevent thirst developing.

The route to developing the eating patterns of children along these lines must begin in the pre-school years.   As they grow older, relentless media pressure and food advertising prove particularly difficult for children and adolescents to resist (see Factsheet 8, *The media*).

Foods are fashionable - just like branded trainers and jeans.   Successful campaigns on healthy eating must recognise these issues, as well as continuing to inform children about nutrition.   Within the school setting, it is important that provision of food is integrated with nutrition education in the curriculum to ensure consistent support for healthy eating.

In addition, specific positive initiatives designed to promote healthy eating can be considered, such as:

- Introducing breakfast clubs.

- Setting up fruit tuck-shops.

- Installing healthy vending machines.

- Improving the school dining room environment.

- Improving access to drinking water in schools.

The issues surrounding these initiatives are set out in Factsheet 4: *Food initiatives in schools*.

Dental and oral health in young people

Children within the 8-14 age group are at the stage of losing their first teeth and having them replaced by adult teeth, so it is a period in their life when they may be very aware of the mouth and its changes.   This is also an age when orthodontic treatment, either with fixed or removable braces, is often carried out to help the newly emerging adult teeth to develop, and children and young people may have increased contact with the dental services during this time.

While the incidence of dental caries has decreased in many European countries in recent decades, there remain important socio-economic differences in prevalence and uptake of preventive services.   There are strong links between dental/oral health and deprivation. Children from disadvantaged backgrounds are much more likely to experience dental decay.

Both sugary and 'diet' fizzy drinks have been implicated in erosion (acid damage) of adolescents' teeth.   Across Europe, approximately a third of boys and a quarter of girls drink soft fizzy drinks on a daily basis (Vereecken et al., 2004).   In general, boys drink fizzy drinks more often than girls, and consumption increases with age.

Children's access to these drinks has been facilitated over recent years by the increase in the availability of carbonated drinks in schools and other public places.   Healthier options such as mineral water and milk should always be made available as an alternative, particularly within schools.

Snacking or 'grazing' on sugary foods is also very damaging to children's dental health. Approximately a third of young people eat sweets or chocolates at least once a day and healthier snack options should be made available in school dining rooms and cafeterias. There is evidence to suggest that healthy food, priced competitively and presented attractively, can attract a good market in schools.

Children's attitudes to dental/oral health

Young children's attitudes to dental health are greatly influenced by media images of good teeth.   Research carried out in Scotland suggests that children consider teeth to be healthy only if they are white, shiny and even, and few children have any understanding of what constitutes a healthy mouth and healthy gums (HEBS, 1996).

Most children know about the negative impact of sugar on dental health but many do not understand that the *frequency* of consumption and the total amount of sugar consumed are important determinants of the damage done.   The importance of brushing teeth is also recognised, although a number of children admit to not always doing so.   Most children do not understand that fluoride plays a vital role in protecting teeth.

Prevention of dental disease

Children and young people have much to gain from preventative dental behaviours that establish good oral health for adult life.

Dental and oral health should not be seen in isolation from general health, lifestyle and dietary issues.   Diet, in particular the frequency of intake of sugars, is known to have an impact on the development of tooth decay.   Smoking is also linked to the development of gum (periodontal) disease and oral cancer.

Many dentists will offer fissure sealant treatment, a very effective means of reducing the incidence of dental decay involving plastic coatings being applied to the back molar teeth. But regular brushing with a fluoride toothpaste provides the most effective means of protecting against tooth decay.

Cross-nationally, the proportion of 15-year-olds who report brushing their teeth more than once a day ranges from 18% (Malta) to 83% (Switzerland). Tooth-brushing is more frequent among girls than boys.   On average, 52% of 15-year-old boys reported brushing their teeth more than once a day compared with 73% of girls (Maes et al., 2004).

Box 9. Key Steps To Good Dental And Oral Health

- *Diet*:   reduce the consumption and especially the frequency of intake of sugar-containing foods and drinks*.

- *Toothbrushing:* clean the teeth thoroughly twice a day with a fluoride toothpaste.

- *Dental attendance:* register with a dentist, and have an oral examination twice every year.

For further information on dental health, see Factsheet 5: *Dental and oral health in young people*.

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Section 2.2   Overweight And Obesity

Key points

- Recent research has shown that the prevalence of obesity is increasing among children and young people in many parts of the world. Obesity rates have risen threefold in many countries; WHO has calculated that worldwide, there are now over one billion people overweight, and over 300 million obese (WHO, 2002).

- By far the most common cause of obesity is the combination of reduced physical activity and increased kilocalorie intake. The mainstay of weight management is to increase the child's activity levels and review his or her eating patterns and behaviours.

- Being overweight or obese has significant social and psychological consequences. Obesity is also recognised as a significant risk factor in the development of serious illnesses in adulthood such as cardiovascular disease, Type 2 (non insulin-dependent) diabetes, hypertension, osteoarthritis, depression and a number of cancers, including breast and colon cancer.

- Even modest kilocalorie reductions can make a significant impact on weight - a 100kcal deficit per day can lead to a 10lb (4.5kg) weight loss over a year.

Definitions

Obesity is defined numerically.   An adult is said to be obese when his or her Body Mass Index (BMI)[2] exceeds 30 kg/m², and would be considered overweight if the BMI was in the range 25-30 kg/m².   This means, for example, that a woman who is 1.64 metres tall (5 feet 5 inches) and weighs 73.2 kg (11 stones 7 pounds) will have a BMI of 27.2 kg/m², and would be considered 'overweight'.

Care should be taken in interpreting BMI, particularly in children.   It is important to take into account a child's age and gender when calculating their BMI.   International age- and gender-related cut-points have been developed in order to calculate BMI in children (Cole et al., 2000).

BMI in children is expressed within a range of 10 *centiles*.   The number of a centile predicts the percentage of children who will fall below a particular measurement at a given age.   The 10th centile, for instance, means that 10% of the population will be smaller and 90% bigger at that age.   A child's progress can be plotted against centile lines on a BMI chart.

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[2] The BMI is calculated by dividing the weight in kilograms by the height in metres squared.

Prevalence

According to the World Health Organization, over one billion people world wide are overweight and over 300 million are obese. Dramatic increases in recent years have led to obesity becoming a major public health concern. In Europe, current estimates indicate a range of obesity prevalence from 10-20% among men and 10-25% among women.

Increasing incidence of overweight and obesity among children is of particular concern because of the future health implications. Data from the 2001/02 HBSC survey found considerable variation in levels of overweight and obesity among European adolescents, ranging between 3% and 34% for 13- and 15-year-olds. The prevalence of overweight and obesity is much higher among boys than girls. On average, among 13-year-olds, 14.4% of boys and 9.1% of girls are overweight or obese. Among 15-year-olds, the figures are 14.5% and 8.5% respectively Mulvihill et al., 2004).

Causes

Basal metabolism is the energy used to fuel body functions such as the heart beating and breathing. If basal metabolism and other energy expenditure in the form of physical activity is less than energy *intake* from the food we eat, then we will gain weight as surplus energy is laid down as fat (see Factsheet 3: *Energy balance*). Body fat is the main way in which we store excess energy and we can draw on these reserves in times of food shortage.

While food shortages do not appear to exist for the majority of people in Europe, there are important issues of access, cost and availability of food for some communities. It is probably significant that the least expensive meals are often those high in fat content. Fast-food and highly processed foods are more likely to be:

- High in saturated fat.
- Energy-dense (meaning that only small amounts are required to significantly increase kilocalorie uptake).
- Supplied in large portions.
- Lower in dietary fibre, micronutrients and antioxidants.

Adolescents generally eat more than the recommended levels of sugar, salt and saturated fat (see Factsheet 1, *Current eating patterns among European children and adolescents)*. The consumption of soft drinks is also an issue related to obesity. The effects of energy intake on satiation appear to be different for fluids compared to solid foods (WHO and FAO, 2003). This could result in more energy being taken in at meals because the extra energy in the drinks is not adjusted by a corresponding reduction in the energy in the solid food. (Ludvig et al 2001).

Compared to the resources available to previous generations and those in developing countries, a wide variety of food is available to the majority of people in Europe from many sources. Food availability and consumption is therefore rising at a time when access to energy-saving technology such as escalators, lifts, remote control devices, cars and sedentary leisure activities like watching TV and using computers are also on the rise.

Consequently, there is a very real risk of a child's energy *intake* (the amount of kilocalories ingested in food) exceeding his or her energy *expenditure* (the amount of energy he or she expends in physical activity and in meeting metabolic requirements).

There are defined medical causes of obesity, but they are relatively rare.   There may be a genetic component, but the appearance of obesity in children of obese parents may relate to family activity and eating patterns as much as genetic inheritance.   By far the most common cause of obesity is the combination of reduced physical activity and increased energy intake (see Box 1).

There is some evidence that of the two, reduced physical activity may be the more significant.   Reilly and Dorosty (1999) found evidence implicating lower energy expenditure (in other words, reduced physical activity) as the prime reason for weight increases in the children they studied, and they believed that this was more convincing than the evidence on higher energy consumption (increased kilocalorie intake).   Some caution should be exercised in generalising from these results, as it is difficult to measure accurately both energy consumption and expenditure in young people as they go about their daily lives.   It is safe to assume that in relation to the population, food consumption and physical activity are both important factors in relation to the problem of weight increase.

Box 1. - A Sorry Tale…

A very dramatic example of the effects of assuming a less active lifestyle and adopting a 'Western'-style, high-fat, high-sugar diet is provided by the story of the inhabitants of Nauru Island in the Pacific Ocean.

This tiny island has some of the richest phosphate reserves in the world due to the resident seabird population.   The purchase of the phosphate by fertiliser companies has led to significant increases in the average per capita income of the islanders over the last 30 years.   This, in turn, has persuaded them to abandon their traditional diet of fish and vegetables in favour of expensive, imported 'Western' foods, and acquire labour-saving devices that allow them to adopt a much less active lifestyle.

In the course of a single generation, they have become one of the most obese populations on the planet.   Thirty per cent of the islanders now suffer from diabetes.

What and how a child learns about food and eating is also a crucial consideration. Experiments with pre-school children suggest they learn how filling different foods are, and adjust how much they eat according to how full they feel.   But common parental strategies designed to ensure that children 'eat up' their meals, such as getting them to finish everything on their plates or being rigid about the child eating at defined times (whether hungry or not), may interfere with this kind of learning.

Consequently, the child may become accustomed to consuming more than he or she needs, a habit that can accompany him or her into adolescence and adult life as it is generally accepted that eating habits acquired in early childhood are likely to endure.

There is also a range of physiological and psychological factors that can be related to obesity.   Eating styles such as eating too fast, poor sensitivity to the 'feedback mechanism' indicating fullness, inability to control impulses to eat, or unhappiness and depression are examples.

Consequences

In the Western world, societies place great value on attractiveness, which generally tends to be perceived as being synonymous with slimness, particularly in women. The disparity between the proportion of women who are overweight or obese and those who have tried to diet demonstrates that while some dieting may be unnecessary in health terms, it is still seen as a necessary component in the struggle to become 'attractive'.

A serious consequence of the perception that being overweight is unattractive is evidence of prejudice against obese children. Even from an early age, children can be subjected to systematic discrimination. By the time they reach school age, research from America suggests that children become 'sensitised' to obesity and associate it with a number of negative characteristics, such as 'laziness' and 'sloppiness' (Dietz, 1998).

The US research also refers to reports that suggest that at ages 10-11 years, children show signs of discriminating against obese peers when it comes to choosing friends. When boys in one study were asked to assign each of 39 adjectives to one of three silhouettes of a thin, muscular or obese body shape, the obese shape was least frequently described as a 'best friend', and most frequently as 'gets teased'.

In the UK, a study of 9 year-old children found that they associated an overweight body image with poor social functioning, impaired academic success, and low perceived health and fitness (Hill and Silver, 1995).

Even children as young as five or six years show signs of discriminating against their obese peers. In one study, children were shown a series of drawings including an obese child, a normal-weight child and three drawings of children with various disabilities. Ranking the drawings by asking which the child liked best resulted in a robust order of preference, with the normal-weight child at the top and the obese one at the bottom.

Measures to reduce obesity

A key strategy in reducing obesity is to increase a child's activity levels and review his or her eating patterns and behaviours.

The definite health benefits of being active far outweigh any possible risk of associated injury. There is a need to ensure that an overweight child is not required to carry out activities that place him or her at a disadvantage in front of peers, but the importance of physical activity (such as walking and cycling to school) should be on the agenda for discussion with parents.

Children may not appreciate that dancing or vigorous play are important sources of physical activity. Even stretching and gentle exercises undertaken routinely at the end of prolonged periods of sitting in the classroom can make a valuable contribution to a physical activity programme, for example *The Class Moves!* HEBS, 2002.

In children, energy intake can be reduced by encouraging healthy eating. Many high-sugar foods can be replaced by more starchy foods such as bread, potatoes and cereals. This way, the child can still eat satisfying food, but will be able to reduce his or her kilocalorie intake in the process. It is important to place restrictions on the consumption of high-sugar drinks as this can have important effects on energy intake and satiation. Children and families can be encouraged that even modest kilocalorie reductions can make a significant impact on weight - a 100kcal deficit per day can lead to a 10lb (4.5kg)

weight loss over a year (see Factsheet 2, *Physical activity and healthy eating guidelines for young people)*.

Dieting does not appear to be very effective in the long-term management of overweight and obese adults.   Most dieters will regain the majority of their lost weight within a year of ceasing their diets (see Chapter 2.3, *Dieting,* in this section).

Schools are important settings for promoting healthy eating for children generally, and can provide excellent opportunities for physical activity through the curriculum and ethos of the school as a health promoting organisation.   They are also well placed to make a significant contribution to promoting equity and social inclusion through the development and implementation of appropriate and effective school policies (see Factsheet 4, *Food initiatives in schools*).

Policies on name-calling and teasing children on any aspects of body shape or attractiveness should be given priority.   Teachers can enable overweight and obese children to gain confidence during class-work unrelated to physical activity by providing a range of options that draw on and reward different skills and abilities.

Measures that help children to develop responsibility for their own bodies and health foster a strong internal sense of empowerment and control.   This has been shown to be important in relation to all areas of health, and will have an important contribution to weight control and obesity.

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Section 2.3   Dieting

Key points

- There has been a significant increase in recent years in the proportion of fifteen year-old girls and boys who report having been on a diet to lose weight.

- The age at which dieting becomes common continues to fall, with reports of children as young as 5-7 years restricting their food intake.

- The pressure that idealises a thin shape for girls and a broad muscular shape for boys starts early and continues to be reinforced through the media.

- The triggers for dieting are likely to be concerns about appearance and associated changes in body shape that accompany puberty, particularly for girls.

- Weight is lost successfully through small changes in eating patterns instigated over long periods of time. Most of the people who lose weight in dieting will regain most of the weight they have lost, leading to further attempts at weight loss.

People diet to reduce body weight by means of food restriction.

Many researchers argue that, far from being a consequence of obesity, dieting can lead to ongoing weight problems.

Dieting has become a global commercial business. Many diets are commercial products, and the range of choices on offer (often carrying conflicting nutritional messages) contributes to the current confusion surrounding weight management practices.

How many children and young people diet?

Findings from the 2001/02 Health Behaviours of School-aged Children (HBSC) survey show widespread use of dieting and other weight control behaviours. Levels of reported dieting were significantly higher among girls than boys (18% and 8% respectively. Levels also increased with age among girls from 12% of 11-year-olds to 23% of 15-year-olds, but remained relatively stable among boys. High levels of dieting and other weight control behaviours were found among boys in Denmark, Hungary and Malta, and among girls in Denmark, Hungary, Scotland and Wales (Mulvihill et al., 2004).

Why do children and young people diet?

There are more teenagers who choose to diet than there are teenagers who meet the criteria for obesity (see Chapter 2.2 - *Overweight and Obesity*).   So why is it that in many European countries, over a third of 11-year-old girls and around a quarter of 11-year-old boys think they are too fat?

The answer has to lie in the unrelenting exposure to an idealised image of the body, particularly for young women, an image which has no basis in biological reality.   There has been a dramatic shift in perceptions of the 'perfect' female form from the full figures of the mid-18th century to the overly thin images of models and celebrities in the present day.

Studies of the waist:hip ratio of mannequins and calculation of the amount of body fat this would represent show that if women possessed the shapes commonly used to display clothes from about 1970 onwards, they would have ceased to menstruate and therefore be infertile. Similarly, it has been calculated that for a woman to have the same proportions as toys such as a 'Barbie Doll', she would have to grow an additional 17 inches in height and have an overall body shape found in less than 1 in 100,000 women within the general population! (Norton *et al.*, 1996).

The age at which dieting becomes common continues to fall, with reports of children as young as 5-7 years in the USA restricting their food intake (Carper *et al.*, 2000). This seems to be in part a response to parents encouraging children to eat up their food and placing restrictions on the kinds of foods they should eat. Mothers have been shown to play a central role in transmitting cultural values regarding weight, shape and appearance to their daughters (Carper *et al.*, 2000), including information that daughters gather about their mothers' own regulation of food intake.

The pressure that idealises a thin shape for girls and a broad, muscular shape for boys starts early and continues to be reinforced through magazines, TV and film.

What triggers dieting?

The triggers for dieting are likely to be concerns about appearance and associated changes in body shape that accompany puberty, particularly for girls. For some girls, the increased fluid retention in the later stages of the menstrual cycle before the onset of a period can precipitate anxieties about weight gain, as can the increased appetite and carbohydrate craving sometimes associated with the later phase of the cycle.

At a time when self-esteem may be fragile, these physiological changes are only too real and may encourage obsessive concerns about what and how much is eaten. The careless comments of both peers and adults, made with reference to 'plumpness' or 'filling out', are frequently commented on as reasons for embarking on a rigid food restriction regime.

Concerns about weight may also prompt initiation of smoking as, for a minority of people, nicotine has an appetite suppressant effect. The common belief in the likelihood of weight gain following smoking cessation may also fuel this idea. In reality, some people may gain weight in the short term from smoking cessation, and this needs to be recognised as an issue in any smoking cessation programme designed for young people.

Recent research in America suggests that, among both girls and boys aged between 9-14 years, contemplation of smoking is positively associated with weight concerns. It is important, therefore, that school health programmes address healthy methods of weight maintenance and dispel the notion of tobacco use as an effective or desirable method.

How do children and young people diet?

Many young people falsely equate dieting with healthy eating. Some popular magazines aimed at the health and fashion markets reinforce this. Girls in particular have a high awareness of foods deemed to be 'healthier' choices in the sense of having lower fat content, and report higher levels of consumption of fruit and vegetables than boys (Currie et al., 2004).

At one level, this is clearly good news but in phases of active growth, particularly around puberty, children also need adequate supplies of fat and starchy foods (see Chapter 1.1, *Food for Growth,* Factsheet 2, Physical activity and healthy eating *guidelines for young people,* and Factsheet 3, *Energy balance*).

In terms of meal patterns, there is an increasing tendency for young people, especially girls, to eliminate breakfast.   This understandably fuels concern for the alertness of children during lessons at school.

What are the effects of dieting?

A number of psychological effects stem from dieting.   Many were identified some years ago in an American study of the effects over a period of months of reducing by 50% the energy intake of a group of volunteer soldiers.   The researchers found the soldiers developed a preoccupation with food, which became their principal topic of conversation.   They reported difficulties in concentrating and experienced mood changes such as depression and apathy.   Once food restrictions were removed, they reported a loss of control over their eating behaviour, sometimes leading to binge eating (Keys, 1950).

Laboratory studies of eating show that if groups of dieters and non-dieters are given either low- or high-kilocalorie drinks and then asked to taste other foods, the dieters will eat more following a high kilocalorie drink while the non-dieters will eat less.   It is paradoxical research findings such as this that have contributed to the view that dieting leads to overeating rather than vice versa (Herman and Polivy, 1980).

Inhibiting all desire to eat in such a conscious fashion means that if the restraint is broken in any way, for example at a party with friends or after surreptitiously eating a chocolate bar, dieters tend to throw caution to the wind and over-indulge.   The dieting encourages the notion that high-fat, high-kilocalorie foods such as cakes and chocolate are even more attractive treats, and introduces the concept of guilt when the dieter indulges him or herself.   Far from providing dieters with control over their eating, dieting seems to make food even more central in their lives.

<table>
<tr><td colspan="1">Box 10. - Why Diets Don't Work (Jade, 2000)</td></tr>
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Box 10. - Why Diets Don't Work (Jade, 2000)

Weight is lost successfully through small changes in eating patterns instigated over long periods of time.   'Diets' tend to focus on major changes over shorted periods.   Some temporary success may be achieved, mainly due to fluid loss in the early stages, but the dieter's fundamental eating and physical activity behaviours are unlikely to change permanently.

Diets don't always work because:

- **Diets are hard to do**   Most diets require a significant change in a person's normal eating habits over an extended period of time.

- **Diets make people feel hungry and deprived**   Research shows that diets make people very hungry and create powerful cravings for the very foods that dieters try to stay away from, such as sugars and fats,

- **Dieters lapse**   A diet only works for as long as people are on it, most people get bored with rigid eating plans and go 'off the rails' from time to time.

- **Diets fail to address the emotional aspect of overeating**   People very often eat to help deal with emotional problems such as stress, rather than because of hunger. Dieting doesn't solve the problem of 'emotional' eating.

- **Dieters usually fail to change their core habits**   People who lose weight successfully and keep it off tend to have made permanent changes to their eating and physical activity levels and those of their families.

Finally, dieting frequently leads to even more dieting.   It is now well-established that most of the people who lose weight in dieting will regain most of the pounds they have lost, leading to further attempts at weight loss.   This is known as weight cycling or, more commonly, 'yo-yo' dieting.

The evidence for this came initially from an animal study where rats were exposed to different foods to make them lose weight and then allowed to regain their weight.   The pattern was repeated several times and researchers found that in each weight gain/weight loss cycle, the rats took longer to shed the extra weight and were much quicker to put it back on when their normal food supply was restored.   The phenomenon of yo-yo dieting has also been recognised as a problem for humans.

Prolonged dieting means that weight becomes easier to regain and more difficult to shed. This is a physiologically complex process involving a number of factors, including changes in metabolic rate and the ratio of lean to fat body tissue. In humans, this kind of weight cycling seems to result in loss of muscle tissue, but gain of fat deposits.

Getting a balance…

Modern life in countries across Europe conspire to make weight regulation difficult for individuals. People are able to purchase a huge variety of highly palatable foods which are energy-dense (that is, high-kilocalorie), but substantially less energy is expended in daily life than was the case for previous generations. At the same time, images of thinness, which are associated with beauty, popularity, happiness and success, are ubiquitous.

It is important that consistent patterns of eating are established at an early age. Food and eating are natural and enjoyable parts of life, and when combined with regular physical activity, ensure an appropriate energy balance is maintained.

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Section 2.4: Eating Disorders

Key points

- Anorexia nervosa and bulimia nervosa are the most common forms of eating disorder.

- Eating disorders often arise as the result of low self-esteem and unhappiness.

- Young people with eating disorders may be very unreliable historians with respect to their eating patterns, and commonly deny having a 'problem'.

- In schools, students who suddenly suffer substantial weight loss may be in the early stages of an eating disorder.

- The management and treatment of these conditions is often a very long and difficult process, especially for anorexia.

Anorexia nervosa and bulimia nervosa are the two conditions most commonly considered eating disorders, and it is important to recognise them as genuine psychiatric conditions. Some sources include gross obesity and compulsive eating within the spectrum of eating disorders.   For the purposes of this resource, obesity and overweight are covered in a separate chapter; this chapter focuses on anorexia nervosa and bulimia nervosa.

While schools may have one or more young person living with an eating disorder at any given time, many more young people may not exhibit obvious signs of the disorder (termed 'sub-clinical'), so the actual numbers affected may be greater.

Eating disorders

Eating disorders are characterised by disturbed and exaggerated behaviours towards food, eating and body shape.   The title is something of a misnomer, as eating disorders are not really about eating.   Rather, they develop as the result of abnormal perception of body weight, low self-esteem and unhappiness.   Individuals may find that the only way they can express their difficult feelings is through food.

Eating disorders tend to arise at times of transition in life, when people have to adjust and change to new circumstances.   Puberty is one such transition, and the time of leaving school another - these are recognised as the two times when eating disorders are most likely to develop, although they can develop at any age in response to significant life events.

People who come from families in which one or more member has an eating disorder are more likely to develop one.   There also seem to be associations between the development of eating disorders and family characteristics such as:

- Members avoiding family conflict.

- Imbalanced parental involvement, with one parent being over-involved with the family while the other is more passive.

- Members finding difficulty in breaking the family 'rules' (McPhail, 1997).

The prevalence of eating disorders is difficult to determine. Of the two, bulimia is more common, and eating disorders of all description occur more often in females than in males.

A particular cause for concern is young people who are not diagnosed as anorectic or bulimic because their symptoms do not appear sufficiently excessive. They may reduce their food intake and take measures to purge themselves of ingested food, but not frequently. Or they may binge on food, but not sufficiently to raise concerns. These young people might not meet the exact criteria to warrant a diagnosis, but are nevertheless at risk of developing difficulties in relation to eating at some point. They may have poor self-esteem and negative body image (see Section 3 - *Image and Reality*), which lead to the kind of comments reported by a teenage girl in Glasgow (Gordon & Grant, 1997):

'Sometimes I hate myself and sometimes I don't. I hate myself today because I think I'm fat and ugly.'

Anorexia nervosa

The technical meaning of anorexia is 'loss of appetite', yet this is not the fundamental problem in the condition. Instead, sufferers severely restrict their eating.

Anorexia was first recognised as a medical condition in the late 19th century, although descriptions of women with characteristic symptoms existed long before that. The essential features of anorexia are:

- Weight loss or, in children, a lack of weight gain leading to a body weight at least 15 per cent below the normal or expected for a child of that age and height.

- An abnormal and extreme fear of being fat - anorectic people are terrified of becoming fat.

- Severe self-restriction on how much is eaten, and avoidance of foods perceived as 'fattening'.

- Delayed or arrested pubertal development.

Most people with anorexia achieve weight control through extreme dietary restriction. They may have rigid or obsessive behaviour around food, such as cutting it into tiny pieces and becoming obsessive about what others are eating. They often feel anxiety towards eating, fearing that if they start to eat they might overeat and gain weight. Up to half may use laxatives after eating to prevent calories being absorbed, or may induce vomiting. Prolonged laxative misuse can cause long-term bowel problems, and recurrent vomiting can lead to severe damage to teeth and inflammation of the gullet or oesophagus - through contact with acidic stomach contents. Reduced bone density, eventually leading to osteoporosis, and increased incidence of fractures are consequences of the malnutrition associated with anorexia.

Exercise can be used to manage difficult emotions and obtain a sense of being in control, but people with anorexia (and bulimia) may exercise vigorously and to extremes as part of their effort to keep weight down.

Many of the symptoms of anorexia nervosa, such as problems concentrating, stem from the consequences of starvation. Recent research suggests that mild impairments of concentration and cognitive efficiency are present in anyone who is dieting.

Other physiological changes in anorexia include poor circulation in the extremities of the limbs experienced as cold feet and hands, and constipation due to the extremely restricted diet. As extremes of malnourishment are reached, there will be hair loss and weakness due to muscle wastage and bone weakening. Crucially, however, the majority of physical problems caused by anorexia can be reversed.

The common perception of people with anorexia is that they have an exaggerated desire to be slim and beautiful, but the picture is more complicated than that. Anorexia develops through people's need to deal with problems that may be out of their control - family problems or other relationships, for instance. People with anorexia tend to have high expectations of themselves, and keeping weight under tabs may be the only area of their life where they feel able to take control; tragically, the condition usually ends up controlling them. Some people remain chronically anorexic, with the illness lasting throughout their life.

While anorexia is most common in the 15 to 24 age range, it is now recognised that it can have an onset in early childhood preceding puberty, where the defining characteristic would be a failure to gain weight with age.

Although eating disorders tend to be considered a problem for young women, the conditions also affect increasing numbers of men, suggesting that the pressures to be thin may be beginning to affect boys as well as girls. There is an increased likelihood of anorexia within certain male-dominated athletic occupations in which there is a requirement to keep weight below a defined level, such as being a jockey. Young people in training for ballet, gymnastics and other athletic pursuits may be more vulnerable to eating disorders.

Bulimia nervosa

The related condition of bulimia was first described as recently as 1979 and formally accepted as a distinct illness 10 years later.

Not all sufferers have the same symptoms, but common features are:

- 'Binge' eating - rapid consumption of a large amount of food.

- An obsession with food or feeling out of control around food.

- Self-induced vomiting, use of laxatives or diuretics, strict dieting, or vigorous physical activity to prevent weight gain.

- Over-concern with, or distorted view of, body shape and weight.

People suffering from bulimia, unlike those with anorexia, often have a body weight within the normal range, but secretly indulge in frequent episodes of binge eating. Very large amounts of foods high in calories, fats and carbohydrates can be eaten in a short period of time, with the person unable to control his or her behaviour. He or she will experience a build up of tension in between binges, which is released once the binge starts. This

episode will be followed by feelings of guilt and depression; a cycle of binge eating, self-induced purging, dieting and vigorous exercise can then emerge as the person desperately tries to control body weight.

The episodes of bingeing and purging may cycle regularly. A fear of fatness, which is also characteristic of anorexia, will be present. Because weight is kept within normal limits, menstruation will not cease, but periods may be irregular.

The repeated bouts of bingeing and self-induced vomiting result in the acid from the stomach contents removing the protective enamel coat of the teeth and may also damage the oesophagus or gullet. Repeated episodes of vomiting over a long period of time will result in potassium depletion in the blood leading to irregular heart rate, and there may be permanent kidney damage. Laxative abuse can result in persistent stomach-aches and in damage to the bowel muscles, leading to constipation.

Other physical complications include:

- Puffiness around the face caused by swollen salivary glands.

- Menstrual disturbances.

- Swollen stomach.

- Dehydration.

- Hoarse voice, sore throat and bad breath.

- Tiredness and lethargy.

- Metabolic disturbances.

The age of onset for bulimia is a little older than for anorexia, starting at around 15 years and peaking in the late teens and early twenties. Although recognised as separate conditions, many characteristics of the two illnesses are shared. Feelings of worthlessness, low self-esteem, and an overwhelming sense of being unable to cope predominate. Acts of self-harm can result, including cutting (usually to parts of the body that are not visible) and attempted suicide. Around 30% of people with bulimia have had all of the symptoms of anorexia at some point in their lives.
People with anorexia tend to be frightened about sexuality and will avoid sexual relationships, whereas individuals with bulimia are more likely to seek relationships and to be sexually active.

Young people with eating disorders may be very unreliable historians with respect to their eating patterns, and commonly deny having a 'problem'. Conversations with young people about their eating habits therefore need to be conducted carefully and delicately.

Causes

Despite huge interest and much research, there is no agreement on the cause of these disorders. Some argue a case for a biological predisposition, based on the identification of close family members with eating disorders and the increased incidence found in identical twins.

Risk factors associated with anorexia include high parental education and income (although this association may be changing), the presence of early feeding problems, and an overprotective family environment. For bulimia, there is more likely to be a history of weight concerns, childhood obesity, family dieting and parental discord.

The observation that eating disorders are now found in parts of the world where they were not previously recorded may support a socio-cultural explanation. Western ideals of attractiveness and changed expectations of the social role of women are liable to be strong influencing factors.

Dieting can act as a trigger in young people with risk factors for developing eating disorders. There is some evidence that cases of anorexia are increasing over time (Eagles *et al.*, 1995).

Management and treatment

The management and treatment of these conditions is often a very long and difficult process, especially for anorexia. Initially, in the case of anorexia, efforts are aimed at ensuring some recovery and maintenance of weight in life-threatening circumstances. This is followed by a lengthy period of psychotherapy and counselling, with the emphasis on restoring self-esteem. With bulimia, treatment designed to look at the underlying thought processes and beliefs about eating and body image can be particularly effective.

In schools, students who suddenly suffer substantial weight loss may be in the early stages of an eating disorder and it is important to ensure they know where they can get help. This is especially important with early-onset anorexia, which may occur in children aged 8-12 years, as case studies suggest that treatment at an early stage of the illness is more likely to be effective. While actual incidence in schools is likely to be quite low, considerable numbers of young people may be in 'sub-clinical' stages of the disorders at any one time.

The school may find it useful to examine their policies on changing facilities, where students will be most self-conscious about exposing their bodies in front of their peers. A school policy on bullying and name-calling may be as important to students with bulimia as it is for students with obesity; many individuals with bulimia who have a history of being overweight comment on the teasing and nicknames they suffered at school.

The impact of some health education in the classroom has the potential to be harmful. For example activities focusing on a discussion of body weights or which involve weighing pupils in class require sensitive treatment. Care needs to taken in dealing with issues around weight control and eating behaviours. Child protection issues are also a consideration, and teachers should be advised to familiarise themselves with their local child protection policies.

Prevention

Eating disorders cause long-term distress to the sufferer and his or her family and affect every aspect of the person's lift. As it is acknowledge above, eating disorders are difficult to treat, so attempts at prevention are well worthwhile. Eating disorders are closely associated with self-esteem and ideas of body shape, which are explored more deeply in Section 3 - *Image and Reality*. Helping young people to develop healthy attitudes towards their own bodies and those of others **before** the onset of an eating disorder, is a key step in prevention. Some means of promoting self-esteem and positive body image

are discussed in Chapters 3.1 - *Self-esteem* and 3.2 - *Body Image*; the related topic of *The Role of the Media* is the focus of Chapter 3.3.

The socio-cultural backdrop to anorexia and bulimia highlights the problems education initiatives and preventative strategies may face.   But with appropriate help from parents, teachers and mental health professionals, the vast majority of young people affected by eating disorders will recover to lead normal, healthy lives.

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Chapter 4,Section 3

Image And Reality

3.1   Self-esteem

3.2   Body image

3.3   The role of the media

SECTION 3

Image And Reality

Section	Related factsheets	Related pre-designed sessions and activities
Section 3.1 Self-esteem		10. What factors affect healthy eating? 12. How can schools promote mental and emotional health and responsibilities
Section 3.2 Body image		26. Messages about bodies 27. Body image - mind's eye 28. Barbie and action man 29. Body image scenarios 38. Body image - magazines 39. Body image and media stars 40. Self-esteem and the media
Section 3.3 The role of the media	<u>Factsheet 8</u>: The media	6. That's me 27. Body image – mind's eye 28. Barbie and action man 35. Persuade me 36. Media pressures 37. Advertisements 38. Body image – magazines 39. Body image and media stars 40. Self-esteem and the media 43. Diet fads and fictions

Section 3.1   Self-Esteem

Key points

- Self-esteem is a composite concept, rather than a single entity.

- A sense of security and trust in the world and in other people is one of the most essential building blocks for self-esteem from infancy onwards.

- School is one of the most important environments for influencing self-esteem in young people and children.

- Using sensitive and positive approaches within the classroom and in the general life of the school, it is possible for teachers to promote students' self-esteem.

The beliefs that an individual holds about him or herself define the person's self-concept. People who believe that life's choices are governed by fate or shaped by the actions of others will be less likely to draw on their own resources to cope with difficult situations. If people believe that they are in control of their lives, however, they are more likely to feel able to cope and have the capacity to respond in a way that can protect and promote their health. These beliefs about oneself and the degree of control one has (locus of control) are thought to be very important in determining an individual's health-related behaviours.

Self-esteem relates to the extent to which an individual *values* the features or attributes which make up the self-concept. In a general way, they could be seen as our attitudes to ourselves, and the sum of these attitudes defines self-esteem.

Defining self-esteem

Rosenberg (1965) has demonstrated the contribution of a sense of personal worth, appearance and social competence to self-esteem. Coopersmith (1967) stressed the need for a feeling of competence and power, and others have pointed out the importance of interpretation of events in an individual's view of him or herself. Drawing these various views together, Robson (1989) defines self-esteem as:

> 'The sense of contentment and self acceptance that results from a person's appraisal of his/her own worth, significance, attractiveness, competence, and ability to satisfy his/her aspirations.'

Robson developed a questionnaire to measure self-esteem, which included the following components:

- Sense of significance.

- Worthiness.

- Appearance and social acceptability.

- Competence.

- Resilience and determination.

- Control over personal destiny.

- Value of existence.

Clearly, Robson believes that self-esteem is a composite concept, rather than a single entity.

Developing self-esteem

Environmental and social experiences, including the responses of 'significant others' such as parents, carers and peers, play an important role in setting the foundations for the development of self-concept and self-esteem. Children will gain perceptions on how they are valued, how 'good' they are, and how well they are liked from the way people respond to them.

It is generally agreed that a sense of security and trust in the world and in other people is one of the most essential building blocks for self-esteem from infancy onwards. When infants begin to develop attachments with their carers, when their smiles or cries are readily received with love and acceptance, they begin to learn to trust those who care for them.

Coopersmith (1967) outlined the family conditions that help to develop self-esteem, and identified three important elements common to children with high self-esteem:

- They experienced respect, concern and acceptance, and were accepted for their weaknesses and limitations as well as their strengths and capacities.

- There were clearly defined rules, standards and expectations and, as a result, children felt secure in their environments - they knew what to expect and what to do in order to succeed.

- The families displayed a high degree of democracy - the children's ideas and opinions were valued.

There are specific personality traits, such as 'self-reliance' or 'hardiness', that help to build and promote self-esteem, but research to date identifies learned experiences and the nature of important interpersonal relationships as being central to the development of self-esteem.

Self-esteem and schools

As teachers know, school is one of the most important environments for influencing self-esteem in young people and children. Early intervention in adolescent mental health problems is essential to try to stop deterioration of mental health, alleviate distress and minimise the impact of mental health disorders on young people's education and social development (BMA, 2003).

In a study carried out by Gordon and Grant (1997), about a third of adolescents cited '*doing well at school*' as something that made them '*feel good about [themselves]*'; this was the largest single influence mentioned.

The *Confidence to Learn* Project (Wetton and McCoy, 1998) established by the Health Education Board for Scotland included a research strategy called *Feeling Good to Learn.* This set out to explore children's views of the things in their classrooms that made them feel good to learn, comfortable with what was being asked of them, and able to do their very best work.

Children were first asked to draw themselves in their classroom situations on a day when they were feeling good to learn, and to include in their drawings all the things that made them feel good in this context.   The second stage was to draw themselves in a day when they were feeling not so good to learn, not able to do their best work and to say what made them feel so.

In the analysis, it was clear from what emerged and from some very specific and illuminating written statements that positive relationships and the things that enhanced self-esteem and emotional well-being came uppermost:

- Lack of pressure.

- Feeling valued.

- Not being afraid to make mistakes.

- Being listened to.

- Contributing to decisions.

- Having interesting stuff to learn.

- Having interesting ways to learn.

- Having a say.

There was little mention of classroom facilities having an impact on learning.   Motivation was seen to come from classroom ethos, relationships and relevant teaching and learning approaches that started with the children and respected what they knew.   Teachers who have carried out this research have found it a valuable starting point for reflecting with the children on effective classroom practices that motivate learning and facilitate change.

Schools also have a significant influence on the self-esteem of teachers.   Feeling that their work and their contribution to the life of the school are valued has an important positive effect on how teachers function.   Primary teachers in Scotland who participated in a week-long personal development course demonstrated significant improvement in their self-esteem by the end of the week (Monaghan *et al.*, 1997).   This was a product of the teachers having time to participate in new and reflective experiences, and feeling they were valued as individuals and professionals.   As members of the school community, it is vital that teachers feel valued in their professional role.   This is important at an individual level, but it is also central to the teacher's effectiveness throughout the school.

Implications for a Health Promoting School approach

According to Wetton and Cansell (1993), people learn best when they feel able to cope with their learning. Feeling positive, they claim, is the best condition for learning to take place, and good self-esteem is at the heart of feeling positive.

It should be fully acknowledged that an individual's level of self-esteem is not a fixed entity, but fluctuates due to the influence of a wide range of factors and experiences. In the life of the school, teachers will be sensitive to the fact that self-esteem can be reduced more easily for some young people than for others. This has complications for both the classroom teacher and management within the school. For example, at a very practical level, name-calling, verbal bullying or exclusion can have profound effects on young people's self-esteem. But there are also other issues that have an effect (Box 11).

Box 11. Self-Esteem (Wetton And Mccoy, 1998)
Classroom-focused action research strategies have been used in Scottish primary schools to provide insights into what makes children feel good to learn, and what makes them feel not so good. This is achieved through the use of draw and write technique allowing children to draw pictures and make statements. This approach is based on *Confidence to Learn,* a classroom resource pack (Wetton and McCoy, 1998), and effectively demonstrates to the children that their knowledge and beliefs are valued. Responses from children from age five upwards show that name-calling is only part of the problem. Much stronger negative influences on self-esteem are: • Critical attitudes from teachers.   • Fear of getting work wrong.   • Other children's disruptive behaviour preventing them from completing work.   • Unrealistic expectations from teachers.   • Being 'singled out' for criticism in class.   • Missing break times.   The factors that have a positive bearing on their self-esteem in relation to school-work are: • Getting positive reinforcement for their efforts.   • Receiving constructive criticism.   • Finding school work interesting and relevant.   • Having success in their work.   • Not being afraid to ask if they don't understand.   • Receiving (earned) praise from the teacher, both verbal and in the form of an artefact (such as a badge).

Some young people may have a degree of resilience to factors that can undermine self-esteem (such as those listed above), but it is very important that school policy and practice starts from where children and young people are in terms of their beliefs and attitudes and protects them from behaviours that could damage their confidence and self-esteem during their time at school.

Using sensitive and positive approaches within the classroom and in the general life of the school, it is possible for teachers to promote students' self-esteem.   This will be especially true if there is a good partnership with parents and carers, which in turn requires schools to be proactive with parents, explaining that the school sees the development of the young people's self-esteem as being crucial to the development of their confidence to learn.

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Section 3.2   Body Image

> **Key points**
>
> - Body image is a complex concept influenced by many psychological, emotional and social factors.
>
> - Research over recent years has shown that children and young people have developed increasingly negative (unrealistic) body images.
>
> - Young people's sense of body image is not fixed, but fluctuates due to the influence of a wide range of factors, self-esteem in particular.
>
> - Negative body image can lead to the development of unnecessary and potentially harmful behaviours such as dieting or eating disorders, particularly in adolescence.
>
> - Schools can inadvertently contribute to negative perceptions of body image through seemingly benign policies and interventions- school dress codes, for instance.
>
> - Children and young people with negative body image may be uncomfortable about using communal changing facilities, dressing in sports kit and participating in active sports.
>
> - The media provide particular examples of role expectations and images of beauty which may influence young people's perceptions of acceptable body image.

Body image refers to the way we experience our bodies and how that affects the way we feel about ourselves.   It is therefore inextricably linked with our self-esteem; someone with a negative view of how he or she looks is also likely to have low self-esteem.

Research over recent years has shown that children and young people have increasingly negative body images.   The British Medical Association's report, *Eating Disorders, Body Image and the Media* (BMA, 2000), states: 'the media are a significant and pervasive influence in modern society, and provide information about gender roles, fashion and acceptable body image which may be particularly influential on those young children and adolescents who are heavily exposed to its content.'   The significance of the media in portrayal of body images and development of self-esteem is set out in Chapter 3.2 - *The Role of the Media*.

What is body image?

Body image has been defined as:

'The picture an individual has of his or her body, what it looks like in the mirror, and what he or she thinks it looks like to others'
(Health Canada, 1997).

We should recognise that body image isn't just about the overall look and shape of the body.   It also refers to consistency of the hair, colour and texture of the skin, and shape and size of the nose and eyes, for instance.

People with a positive body image have a perception of their body shape which makes them feel at ease with their physical appearance.   People with negative body image, however, may feel awkward or uncomfortable about aspects of their bodies, or may hold distorted and inaccurate perceptions of their body shape.   They may feel self-conscious and perhaps ashamed of their bodies.

Body image and self-esteem play a significant role in the generation of the broader notion of *self-image* or *self-concept*, which relates to how people perceive and evaluate their characteristics, physical attributes and 'worth'.   As Chapter 3.1 - *Self-esteem* showed, a young person's level of self-esteem is not fixed, but fluctuates due to the influence of a wide range of factors and experiences; perceptions of body image fluctuate in a similar way.

Reductions in self-esteem can lead to, and be reinforced by, negative body image.   This in turn may lead to the development of unnecessary and potentially harmful dieting or even eating disorders, particularly in adolescence, as the young person strives to change his or her body shape in an attempt to bolster body image and, consequently, self-esteem. In a study of 594 school girls in the UK, it was found that girls with low self-esteem at the age of 11-12 years were at significantly higher risk of developing severe signs of eating disorders and other psychological problems at age 15-16 (Button *et al.*, 1996).

The *Confidence to Learn* project (Wetton and McCoy, 1998) included a research strategy called *A Picture of Health*, which has been used extensively in several European countries.   Children in the research strategy are asked to draw a picture of a healthy person.   During recent years, an unexpected trend has been observed in the children's drawings of women.   Children have always used certain conventions for drawing women, moving through the head as body, to the triangular figure with legs attached to the skirt, to the traditional figure with the indented waist.   (see Figure 3, following page) In recent years, the female figure has increasingly been drawn as very tall, straight, very thin and shapeless.   At first, this phenomenon was noticed in the drawings done by girls in the 10-11 years age group.   More recently, it has become apparent down the age range and is now appearing regularly in the drawings of seven-year-old girls.

A similar but less dramatic change has appeared in the drawings boys make of healthy males.   There is great emphasis on a muscular upper body and descriptive phrases such as 'six pack' are increasingly used.   This phenomenon is coming down the age range quite rapidly.

Many adolescents have a critical view of their appearance and this is particularly the case among girls.   The 2001/02 HBSC Survey in Europe highlights this issue.   Among 11-, 13- and 15-year-old boys, over a fifth considered themselves to be 'too fat'. Significantly more girls than boys were dissatisfied with their body size.   At age 11, 28% girls felt they were too fat.   This increased to 37% of 13-year-olds and 42% of 15-year-olds.   Across all age groups, highest levels of body dissatisfaction among girls were found in Belgium, Germany, Poland, Scotland and Slovenia. Among boys, highest levels were found in Austria, Belgium, Germany, Spain and Wales. Levels of body dissatisfaction were well below average for both boys and girls in the Russian Federation and Ukraine (Mulvihill et al., 2004).

Figure. 3 Slim image drawn by child (With permission from N. Wetton)
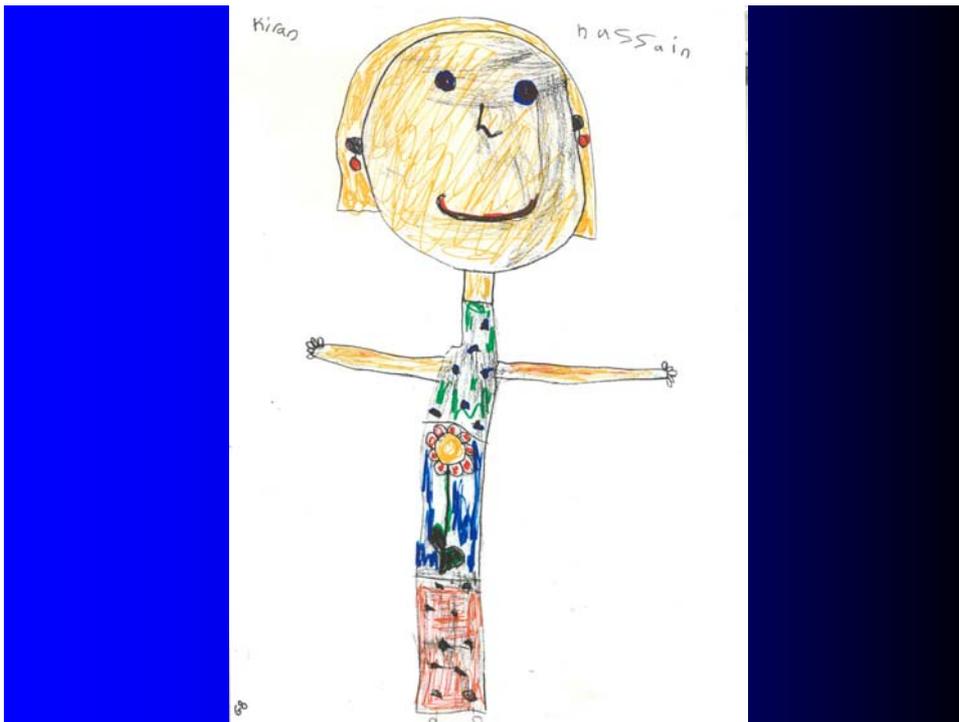
These trends have reinforced concerns within and beyond schools that these pictures of 'health' represent an impossible ideal. Some children will attempt to reach the ideal through diet, exercise and other means. Many will recognise the impossible gap between the ideal and what they can achieve, and this may affect their motivation as well as self-esteem and mental well-being.

Factors that affect body image

Body image is a complicated concept influenced by many psychological, emotional and social factors. Two sets of criteria, one internal, the other external, nevertheless seem crucial:

- The young person's appraisal of his or her own body, and how he or she feels it must appear to others.

- How the young person compares and rates his or her body against the bodies of others, particularly peers.

The young person's relationships will have a significant impact on both criteria, and on how his or her body image develops. Of particular importance are relationships with:

- Parents and families.

- Friends and peers.

- School.

- The media.

The media play a key role in influencing young people's body image and what is perceived as being a 'good' body shape, and this is discussed in detail in Chapter 3.3 - *The Role of the Media*; this chapter therefore concentrates on the first three relationships.

Parents and families

Comments made by parents and family members can have a huge impact on a young person's body image. Negative comments or teasing about children's eating patterns can be hurtful and can cause them to develop unhealthy relationships with food. Negative comments about weight, especially for overweight children, may lead to unhealthy dieting at an early age and self-consciousness about the body (Small, 2001).

How parents talk about their own bodies and those of other people is also an important factor in how the child's body image will develop. Constant criticism or derogatory comments about their own or others' weight, for instance, is liable to be 'picked up' by children, who may then make the assumption that worrying about weight is 'normal'. Children hearing these kinds of messages may begin to feel that they, too, are overweight. When they compare their own bodies with those their parents are describing as 'desirable', they feel they are not measuring up (Small, 2001).

Friends and peers

Young people commonly compare and rate themselves against their peers across a whole range of criteria, with physical appearance being prominent. Friends play a key part in establishing body image, especially among adolescent girls (Small, 2001). Davis (1999) reports that adolescent girls engage in 'fat talk', complaining about and finding fault with their bodies. Hearing friends speak in this way about their bodies can create the idea in a young girl that she, too, is overweight and unattractive, or should be similarly self-critical, leading to the development of a negative body image and a consequent cycle of unhealthy eating and dieting.

School

The school can inadvertently encourage negative body image notions through seemingly benign policies and interventions. The school uniform, for instance, might be felt by some young people to be emphasising their 'worst' body features. If there is no school uniform, some children from less well-off backgrounds may feel disadvantaged by not being able to purchase the latest 'designer' clothes, in stark contrast to their better-off friends.

Dress code in general raises a number of difficult issues for schools and students, including the economic implications of imposing a code and the subjugation of people's will to comply with the code (girls wanting to wear trousers instead of the code-prescribed skirt, for example). All of which makes the notion of wide consultation on dress code so important.

There may be little encouragement for some young children to attain the kinds of achievements that would bolster their self-esteem and body image. Those who are most concerned by their body image might be reluctant to use communal changing facilities, for instance, and will miss out on the opportunity to enjoy and benefit from organised physical activity and sports (see below).

Some young people might believe that the individuals depicted in posters on notice-boards, advertisements and other visual images posted around the school have bodies quite unlike their own, and consequently feel their body shape is not the 'right' one.

And while the school may have set policies on dealing with bullying, some young people who are bullied because of their body shape or physical appearance might feel too embarrassed and ashamed to report their problems unless sensitive efforts are made by the school to encourage them to come forward.

Body image and sport participation

The rituals of taking part in sport include the acquisition of the 'right' equipment, wearing the 'right' kit and looking a certain way.   That 'certain way' usually means having a lean, toned, athletic body.

Children and young people whose bodies do not measure up to the ideal - or who *believe* that they don't - may be uncomfortable about using communal changing facilities, dressing in sports kit and participating in active sports.   Ashworth (1997) describes the dilemma of one girl in her book, *Fat*:

> *'…the problem with most forms of exercise is that you have to take your clothes off. I like swimming but I hate having to walk across to the pool and everyone seeing my flabby bits…'*

If teachers supervising physical activity sessions make the assumption that larger children, or those who are very thin or have a disability, are less skilled physically and are embarrassed to be seen in gym clothing, the situation will be compounded.   This may lead to the teachers underestimating the abilities of the children, limiting their opportunities for involvement in physical activity.   Negative experiences in physical activity sessions at school can breed an ongoing dislike for physical activity throughout life, and can worsen the child's body image.

Evidence suggests that girls and young women take part in sport significantly less than boys, and the connection with and preoccupation about body image cannot be discounted as being a contributory factor in this gender difference.   Young men are also under pressure to acquire the 'ideal body' by developing their muscles and emulating the 'macho' image of sports stars and film actors.   Evidence from studies of men with eating disorders also suggests that perceived body image measured against a societal 'norm' is a crucial factor in the onset of the illness.

Strategies for improving body image

Body image and self-esteem can be considered synonymous in terms of their importance in influencing how young people feel about themselves.   The most effective way of improving body image, therefore, will be to boost self-esteem, and *vice versa*.   The strategies to improve self-esteem set out in Chapter 3.1, such as *shared learning* and *circle-time*, should be used for this purpose, informed by research with children which reveals what makes them feel good to learn, using strategies set out in *Confidence to Learn* (Wetton and McCoy, 1998).

But that is not all that can be done. Ikeda and Naworski (1992) built on the earlier work of Bean (1992) to develop the idea of four conditions necessary to maintain a high level of self-esteem, and related them to body image.   They are:

A sense of **connectiveness**: this enables young people to feel strong links to the people and places around them, and to feel secure with them.   Encouraging respect and support for fellow-students and teachers in the school may help them to feel 'connected' to their environment and peers.   If they are not happy with their body image, their sense of connectiveness may deteriorate.

A sense of **uniqueness:** this is threatened when the young person feels his or her body doesn't 'fit' expectations (either his or her own or others), meaning his or her 'uniqueness' is perceived in a negative, rather than positive, way.   Teachers can help re-establish the positive sense of uniqueness by emphasising and praising the young person's qualities and reinforcing how important they are to the individual and those around him or her.

A sense of **power:** young people with a sense of power feel they have some control over their lives.   Teachers can encourage them to make decisions and take responsibility for their actions, while offering guidance on making choices and developing healthy behaviours.   This is particularly appropriate in relation to personal and social development and the health education curriculum, where decision-making and taking responsibility are encouraged across all the health-related topics and issues.

A sense of **role models:** role models represent the standards and values young people need to help them make sense of the world and to develop their own sense of responsibility.   Some young people, such as those who are overweight or disabled, may find it difficult to identify appropriate role models, so they should have access to resources which present people of all abilities, cultures, sizes, and gender.   Teachers have the potential to influence young people's values and behaviours in a positive way and to help young people to identify positive role models.   There is evidence that if young people respect their teacher, this has a powerful effect in encouraging their learning.

Implications for a whole-school approach

What kind of messages about body image are transmitted, consciously or unconsciously, in schools?   Teachers should be encouraged to consider some of these questions:

- Is there a school uniform or dress code? If so, does the design take account of a range of body shapes and sizes?   Does the same apply to sports kit?

- Is there a wide range of sports and leisure activities on offer for pupils?

- What keeps the 'dieting culture' alive in your school?   For instance, does a member of staff run a slimming club?   Is there a lunchtime discussion group where issues such as 'why dieting doesn't work' can be tackled?   Are school premises used by weight control organisations to run dieting clubs?

- What kind of foods and drinks are on offer in the dining room and cafeteria?

- What are the changing facilities like?   Do they offer privacy?   Are the showers communal or individual?

- What visual images are on display around the school?   Does the imagery reflect the diversity of the school community?

- Is size related bullying specifically mentioned in the school behaviour policy?

There is a need to consider how these issues can be addressed through:

- Classroom consultation research strategies.

- The taught curriculum.

- Supporting pupils and their families.

- Supporting school staff.

- Involving the school health service.

- Setting up support networks with health professionals, local authority advisory staff and others who are preparing pupils for the real world.

'Teaching with equity'

In Western culture, being slim and physically attractive is perceived by many young people not only as being 'desirable', but also as being 'good'. Consequently, some young people who perceive themselves to be neither slim nor attractive might perceive themselves to be 'undesirable' and 'bad'. This kind of belief, arising from negative body image, can have devastating effects on the young person's self-esteem and, ultimately, his or her health, social functioning and academic prowess.

Small (2001) advocates the idea of 'teaching with equity' to try to overcome some of the problems faced by young people with negative body image and poor self-esteem. By this, she does not mean treating all young people the same way. Rather, she suggests teaching in a way that 'encompasses and acknowledges the individual needs and abilities of all students', and which guarantees fair and unbiased treatment for all young people.

As Small (2001) suggests, classrooms are not always 'egalitarian' environments, and young people who are (or perceive themselves to be) the victims of inequitable treatment can suffer dramatic effects on their self-esteem. Teachers who show awareness of these factors, and who focus on improving academic self-esteem and confidence in students by promoting the individual qualities and abilities of all individual young people, are likely to see improvements in many aspects of self-esteem, including improved body image (Small, 2001).

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Section 3.3   The Role Of The Media

Key points

- Children and young people's attitudes to food may be increasingly shaped by ideas of 'fat' and 'thin', images largely derived from the media.

- The effects of the media are subtle and cumulative and take effect over a long period of time.

- The contrast between the high-fat foods commonly advertised on children's TV and media depictions of 'ideal' thin body images may lead to confusion among children and an ambiguous relationship with food later in life.

- Developing skills of media literacy in children will help to counteract some of the negative effects of the media.

For many young people, particularly girls, body image, food and self-esteem are closely inter-related.

It has been argued that people in Western cultures tend to be discontented about their bodies, particularly young women.   While eating disorders (Chapter 2.4 - *Eating Disorders*) may be extreme examples of this discontent, large numbers of young people are unhappy with their body and have a distorted relationship with food.

Children's attitudes to food may be increasingly shaped by ideas of 'fat' and 'thin', images largely derived from the media.   This chapter will focus on the connections between images of 'thinness' in the media and its influence on young people's attitude to food and body image.   Responses to media messages of thinness are often influenced by gender and ethnicity, and these differences have to be considered when looking at the effect of the media on young people.

The importance of the media

The media's influence on people's lives is often taken for granted.   Very few people get through a whole day without watching television, reading a magazine or newspaper, surfing the internet, or listening to the radio.

For many young people, watching TV is the most popular home-based activity.   There is concern over increasing levels of sedentary behaviour among young people and time spent in front of television screens, especially in light of the rising prevalence of overweight and obesity.   A recent study of adult women showed sedentary behaviors, especially TV watching, were associated with a significantly elevated risk of obesity and type 2 diabetes, with greater television viewing linked to increased risk (Hu et al., 2003).

Data from the HBSC survey shows that, on average, over a quarter (26%) of 11-, 13- and 15-year-olds across Europe watch four or more hours of television a day on weekdays. This figure rises to 45% at weekends.   Countries consistently in the top quartile for television viewing include Estonia, Latvia, Lithuania and Ukraine.   Countries consistently in the lowest quartile include Austria and Switzerland.   In the majority of countries, television use is slightly higher among boys than girls (Todd & Currie, 2004).

Table 1. Watching TV Four Hours Or More Per Weekday, By Gender, HBSC International Average 2001/02 (Currie *Et Al.*, 2004)		
Age	Boys (%)	Girls (%)
11	26.5	22.1
13	30.5	27.2
15	28.0	23.4

Children are often sophisticated viewers of TV and do not believe everything they watch or, everything they read in magazines. But it is likely that younger children's ability to evaluate material is less well developed than that of adults, particularly where they are able to watch or read material on their own without any interaction with adults.

Information obtained from TV and magazines may influence young people's ideas of body image, attractiveness and their role in society. Discussing the media in a classroom situation and challenging young people to explore the issues provides an important arena for them to develop critical awareness of media messages.

Effects of the media on behaviour

Quite what effects the media has on behaviour has been the subject of much debate, with many different views expressed. Early media research suggested that people were directly influenced and would copy behaviour from the TV or be 'brainwashed' into accepting opinions conveyed in newspapers. Current research, however, shows that audiences tend to select and filter information, rejecting those messages that conflict with their existing views. Young children make sense of information they don't understand by adjusting it to fit something they do understand.

Media influence cannot be measured by looking for straightforward evidence of cause and effect. For example, it is simplistic to say a young person will look at a photograph of a thin model and become anorectic. The effects are more subtle and cumulative and take effect over a long period of time in the context of a society that constantly reinforces messages about body image, beauty and gender roles.

Young women in Europe are likely to grow up in a culture where beauty and fashion are considered central components of their identity and where they learn to associate success with thinness. A young man may grow up in a culture where ideas of masculine physical strength influence body image or prevent him from expressing his emotions. While the media can boost self-esteem by providing young men and women with examples of a variety of body shapes, roles and routes to achievement, it often tends to portray a limited number of body shapes and messages linking external appearance with success. This is potentially damaging to the self-esteem of young people (BMA, 2000).

Disordered eating and young people

As Section 2.2 - *Overweight and Obesity* explains, there is a significant problem of increasing levels of obesity in many European countries.

At the same time, Western societies seem to be increasingly obsessed with dieting as indicated by the huge sales of popular books on this subject.

There has also been a rise in the numbers of people suffering from anorexia and bulimia nervosa.   There is a much larger population of people who might not have a diagnosed eating disorder, but who nevertheless have a problematic relationship with food.   They may binge or diet and feel unhappy about their current body shape, size and appearance.   Higher levels of dieting are found around the time of puberty, when physiological demands would generally require an increased kilocalorie intake for normal development.

The contrast between the high-fat foods commonly advertised on children's TV and media depictions of 'ideal' thin body images may lead to confusion and an ambiguous relationship with food later in life.   Research in the USA and UK has shown that food advertisements comprise around 60% of all commercials broadcast during children's viewing time.   The foods tend to be 'snacks' with high fat, sugar and salt content.   Research has also shown that children who watch lots of TV are more likely to have poorer eating habits.

One study, for instance, looked at the impact of prolonged exposure to Western TV shows on Fijian adolescent girls.   Western TV had only been introduced to the local population shortly before the study commenced.   Researchers found that the girls who had most exposure to the programmes were the ones most likely to show indicators of disordered eating, and to express interest in dieting to make their bodies look like the women they saw on TV.   The researchers concluded that TV had a negative impact on disordered eating attitudes and behaviours in a population that was relatively 'media-naïve' (Becker *et al.*, 2002).

The result of all this is that by early adolescence, young people can have adopted poor eating habits and unhealthy attitudes towards their body shape.   Clearly, young people need to be educated about nutritional requirements and the dangers of 'running on empty'.   There is a risk that they may feel 'outside' an acceptable social norm, causing them to start unsupervised dieting that may retard normal growth or, in at risk cases, may lead to an eating disorder.   The well-documented rebound effect of dieting may also increase the risk of obesity in the longer term and distort a young person's relationship with food, to the extent that eating might come to be viewed as a negative activity rather than one that is pleasurable and life-sustaining.

Men, body image and eating disorders

Although it is mainly women who suffer from the pressure to be thin, men are also presented with unobtainable images of perfection in the media that may damage their self-esteem or alter their body image.

In the UK, ten per cent of eating disorder sufferers are men. However, rather than being under pressure to be thin, many men feel they need to develop larger and stronger muscles in a bid to reach the 'ideal' body proportions.   This may discourage them from restricting their food intake.   Young boys are more likely to take steroids or over-exercise to achieve the muscular body shape associated with masculinity.

Insecurity about appearance may also manifest itself in other forms, such as overcompensating for painful feelings with arrogance and overconfidence, or bullying others.

The media's influence on attitudes towards body image, food and self-esteem

Media imagery may be particularly important in changing the way the body is perceived and evaluated. The media contributes to the socially represented 'ideal' body by providing examples of 'attractive' women - models, actresses and pop stars - which provide a point of comparison against which women measure themselves.

In recent years, the socially represented 'ideal' body has become increasingly thin -much thinner than the average body shape of the population -putting pressure on women to view their bodies as fatter and heavier. e presentation of computer-generated images such as 'Lara Croft' and toys like 'Barbie ' as representative of an 'ideal' for the adult female body-shape, for example, is one that will contrast with a young woman's experience of her own body at puberty, which is likely to seem 'fat' and disproportionate in comparison. It is perhaps significant that many of the models used in fashion and teen magazines have a pre-pubertal appearance.

In studies conducted with adolescent girls, media and fashion trends are often found to exert stronger pressure to be thin than parents and peers. Women's magazines, in particular, commonly promote weight loss or shape change with direct links being made to being fit and healthy. They contain 10 times as many advertisements and articles promoting weight loss as do men's magazines. Although magazines aimed at younger girls tend not to promote weight loss, they may provide a gateway to reading those aimed at older age groups. Increasing access to the internet may also encourage young girls to obtain information about beauty, fashion and diet from sources that are aimed at older age groups. It is therefore important that the skill of evaluation of media messages is developed at an early age as part of the school's ongoing personal, social and health education programmes.

Body image and popular culture

Overweight people tend to be portrayed in the media as figures of ridicule, and successful female celebrities find that their weight loss or weight gain can become the focus of media attention and speculation. Successful larger women are famous for their comic roles, but there are far fewer larger women presenters or actresses in glamorous roles on television.

Research has consistently found that most female characters on TV or other parts of the media are thinner than average women. It has been estimated that models and actresses in the 1990s had 10%-15% body fat - the average body fat for a healthy woman is considered to be 22-26%. Although men may be under increasing pressure to 'look good', male TV presenters, actors, and newsreaders do not appear to be under as much pressure to conform to a narrow range of acceptable body sizes.

Research with young children has shown that they are quick to assimilate these cultural attitudes and assign negative characteristics to 'fat' figures and positive personal qualities to 'thin' figures. Children tend to identify fat figures as lazy, of low intelligence and having fewer friends (see Section 2.2 - *Overweight and Obesity*). Such cultural prejudices can lead to the teasing and social exclusion of overweight children.

Classroom discussion could consider some of the ways that young women are presented in the media, including positive examples. This should be part of the ongoing health education programme and could also be well supported though other parts of the curriculum.

Positive examples can also be found in the Black and Asian communities. Current research indicates that fewer Black and Asian women suffer from eating disorders than white women in Western society. Wider social support networks, offering alternative ways to bolster self-esteem, may offer protection against media images of thinness.

How can schools help?

Schools can consider ways of helping young people to decode and resist media messages that associate thinness with beauty and health, and provide information on health and nutrition. Positive associations with food could be encouraged by policy initiatives such as school breakfast clubs. Teachers can also help boost self-esteem by allaying fears about body image (particularly at puberty) and attempting to promote positive self and body image.

In media literacy programmes, teachers may find that their knowledge of current celebrities and trends in popular culture lag behind those of their pupils, and it is important that dialogue is established as part of a two-way learning process. It is important not to be dismissive about the media, as many young people take it very seriously as a source of entertainment and information. Look for positive media examples on issues related to food, body image and disordered eating.

Research in the US has indicated that prevention efforts are best targeted at elementary or primary school pupils. There is a better chance that the authority of parents and teachers can outweigh the influence of peers at that age. The following strategies have been suggested:

- Research into children's perceptions using illuminative strategies such as asking them to draw pictures of their ideas ('draw and write' techniques) (Wetton and McCoy, 1998).

- Tapping into the children's perceptions of body image, 'fatness' and 'thinness' as a starting point for challenging perceptions and misconceptions.

- Teaching acceptance of a wider range of body shapes.

- Providing children with information about the facts of development to allay anxieties about puberty.

Developing skills of media literacy in children will help to counteract some of the negative effects of the media. The curriculum can look at issues such as:

- The selection and construction of media content.

- The way advertising and marketing is aimed at our emotions.

- The way that media content is aimed at particular audiences.

- The use of narrative techniques to create particular versions of reality.

Teachers can also devise alternative ways to boost self-esteem within other areas of the school by, for example, promoting and offering a wide range of opportunities for participating in physical activity. Activity can be an important component of developing self-esteem and provides an alternative focus to dieting for women wanting to maintain a

healthy weight.   The following measures may help to encourage participation of all young people:

- Find out children's and young people's views on staying healthy.

- Stress the importance of fun and fitness.

- Provide opportunities for children to be successful at levels they can achieve, rather than by predetermined criteria.

- Find ways of dividing the children into groups and teams unrelated to personal qualities and skills.

- Use game-type activities to get children into teams and groups.

- Encourage teams to work together to achieve progress.

For further information on the impact of the media, see Factsheet 8, *The media.*

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Websites

www.medialit.org - the website for the US Centre for Media Literacy
www.mediasmart.org.uk - a media literacy website with a section for young people, part of an initiative funded by private sponsors and supported by the UK government.

Chapter five:

Fact Sheets

Chapter 5

Factsheets

Chapter 5 provides eight factsheets with summary information and key statistics on adolescence and healthy eating.

Factsheet 1

Eating Patterns Among European Children And Adolescents

Main Points

- Comparisons of eating habits between countries should be viewed with a degree of caution as factors such as cultural and seasonal influences play their parts in complex ways. This Factsheet draws mainly on the conclusions of the HBSC international study to report on the main patterns and trends.

- There is considerable variation in food consumption across Europe but many children and young people in Europe have poor nutritional intakes.

- Intakes of fruit and vegetables are low for many children. For example in 16 countries more than 25% of young people consume fruit once a week or less.

- There are emerging patterns in the gender differences in young people's eating habits. For example the higher proportion of girls who skip breakfast and the lower frequency of fruit and vegetable consumption in boys.

- Consumption of fatty and/or sugary snack foods is high. For example one third of young people in Europe eat sweets or chocolates once or more each day.

- Children from socio-economically disadvantaged groups compare poorly in terms of dietary intake with their counterparts from higher socio-economic groups.

Breakfast Consumption

- On average 69% of boys and 60% of girls in Europe have breakfast every morning on school days. However the figures show considerable geographical variation.

- Boys have breakfast more often than girls in most European countries. This gender difference becomes more pronounced with age: between the ages of 11 and 15, breakfast consumption falls 9% in boys and 17% in girls. In England, Scotland and Wales this gender difference in frequency of breakfast consumption reaches 20% at age 15. The decrease in frequency of breakfast consumption with age is most marked in The Netherlands at 29%.

- Consumption of sugared fizzy drinks is high: in 2002, 63% of 11, 13 and 15 year-olds reported drinking these most days a week.

Consumption Of Fruit And Vegetables

- In Europe, on average only 30% of boys and 37% of girls report eating fruit daily. Consumption is highest in Israel (49% of boys and 54% of girls) and lowest in Estonia (17% of boys and 23% of girls).

- Daily consumption of fresh fruit and raw vegetables/salads has increased in the last four years in some countries such as Scotland.

- Fruit consumption decreases with age in young people in all countries except Italy. The decrease is greater in boys.

- Similarly to fruit consumption, girls in general report eating vegetables more often than boys. This difference exceeds 10% in three countries (Flemish Belgium, Finland and Germany) and exceeds 5% in 17 countries.

- In all countries except Belgium (Flemish), less than 50% of all young people report eating vegetables daily.

Soft Drinks And Sweets

- Consumption of fatty and/or sugary snack foods is high in many European countries. For example one third of young people in Europe eat sweets or chocolates once or more each day.

- Young people report eating sweets less frequently in Denmark, Finland, Norway and Sweden. Malta has the highest percentage of daily consumers (54%) followed by Scotland and Ireland.

- Daily soft drink consumption occurs with 40% or more of young people in Israel, Malta, The Netherlands, Slovenia and Scotland. Consumption is lowest in some of the Scandinavian countries, the Baltic states, Greece and the Ukraine, where less than 20% report drinking soft drinks daily.

- In almost all countries more boys than girls consume soft drinks every day. Although this gender difference is quite small in 11year olds it widens with age (35% of boys and 26% of girls).

Nutrient Intakes

- Most children have adequate energy (kilocalorie), protein and carbohydrate intakes in Europe, but there is concern about the balance of their food consumption in relation to physical activity levels with the resultant increases in overweight and obesity being observed in some parts of Europe.

- In general, children and young people consume large amounts of fatty and/or sugary snack foods and have lower than recommended intakes of fruits and vegetables, this has implications for the nutrient balance of their diet.

- There is evidence of Vitamin A intakes being below recommended levels for some young people in Europe.

- In relation to the risks of mineral deficiency there are some countries where iron and calcium intakes are below the recommended levels for young people. In parts of Eastern Europe and Central Asia specific deficiencies exist in relation to iodine which can be addressed through iodine being added to salt.

Socio-Economic Differences

- In many countries children from socio-economically disadvantaged groups tend to have lower intakes of fruits, vegetables and low-fat dairy products, but eat more fatty and sugary foods.

- In many countries intakes of proteins, carbohydrates, fibre and vitamins (including Vitamins A, C and D) are lower in children from socio-economically disadvantaged backgrounds.

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Factsheet 2

Physical Activity And Healthy Eating Guidelines For Young People

Physical Activity

If we consider activity levels of young people in Europe, it appears that on average they are active for an hour or more on 3.8 days a week. Countries and regions vary widely, with levels ranging from 3.4 days in Belgium (Flemish) to 4.9 in Ireland for boys, and from 2.7 days in France to 4.1 in Canada for girls. Despite differences between age groups, some countries and regions are consistently in the top quartile (Belgium (Flemish), France, Italy and Portugal) (WHO Europe, 2004).

In all countries and across all three age groups (Aged 11,13 and 15), boys report being physically active for at least an hour a day more often than girls; on average, 4.1 days and 3.5 days, respectively. The gender difference varies, however. In 15-year-olds, for example, the difference is at least 1 day in Greece and Ukraine, and minimal in the Netherlands (WHO Europe, 2004).

Children exercise progressively less as they grow older, in particular around aged 10. Between the age of 12 and 18 years the average amount of regular physical activity decreases by 50 per cent; however boys are consistently more likely to be active and fitter than girls (Meredith and Dwyer, 1991).

Physical activity is believed to be an important factor determining the weight of children (Deheeger et al., 1997). To maintain a healthy weight, children and adolescents need to balance the amount of energy eaten with the amount of energy expended. Many children and adolescents spend too much of their day in activities that require little energy, such as using a computer or watching television. Instead, it is recommended that they adopt a more physically active lifestyle.

Obesity is a major public health concern, affecting adults as well as children and adolescents. It has been described by WHO as "a global epidemic" due to its high and increasing prevalence (WHO Europe, 2004). It is estimated that 50 to 80% of obese teenagers will stay obese as adults (Guo et al., 2002; Lissau et al., 2004).

According to the "International Obesity Task Force", the prevalence of overweight and obese children has risen from 9% in 1980 to 24% in 2002; five points higher than it had been expected based on trends from the 1980s. It is estimated that 14 million school children in Europe are overweight, 3 million of them being obese (IOTF, 2004).

Different countries have slightly different recommendations on appropriate physical activity guidelines. For example in Scotland the recommendation is for young people to build up to one hour of physical activity on most days of the week. WHO recommend at least 30 minutes of physical activity in a day which is not specific to children. (WHO, 2002). In addition, it is recommended by WHO (2003) that children and young people need an additional 20 minutes vigorous physical activitiy 3 times a week.

Healthy Eating

Guidelines For Fat, Salt And Sugar Consumption

Over-consumption of fatty foods, salty foods should be avoided. The table below gives the recommended maximum intake levels. However, completely banishing much-desired foods can be counterproductive. Foods that have been forbidden may be over-consumed when children are more independent and parental control over the diet wanes. Parents should be encouraged to moderate, rather than totally ban, intake of the 'offending' food (Scotland NHS, 2004).

Recommended maximum daily consumption of fat, sugar and salt for children

Table 2. Daily Maximum Amounts

	Fat (g/day)	Saturated/fat (g/day)	Sugar (g/day)	Salt (or as sodium) (g/day)
Boys 7-10 yrs	78	24	58	5(2.0)
Girls 7-10 yrs	70	21	51	5(2.0)
Boys 11-14 yrs	86	27	65	6(2.4)
Girls 11-14 yrs	72	23	54	6(2.4)
Boys 15-18 yrs	107	34	81	7(2.8)
Girls 15-18 yrs	82	26	62	5(2.0)

Source adapted from: Food Magazine (2004). 66, Food Commission, London

Table 3. Other Nutrients

Average daily requirements				
Nutrient	Found in	Age 7-10	Age 11-18	
Calcium	Milk, cheese, yoghurt, broccoli, tofu	550mg	1000mg (boys) 800mg (girls)	
Folate	Beans, broccoli, satsumas, peanuts, oranges, breakfast cereal	0.15mg	0.2mg	
Iron	Meats, beans, raisins, breakfast cereals	8.7mg	Boys	Girls
			11.3mg	14.8mg
Vitamin A	As retinol (which is pre-formed Vitamin A): milk, fortified margarines, cheese, egg yolk, liver, fatty fish. As carotenes (which are transformed into Vitamin A in the body): vegetables and fruit, especially carrots, tomatoes and green leafy vegetables, mangoes, apricots.	0.5mg	0.6mg (0.7 for males 15-18 yrs)	
Vitamin C	Fruits (especially citrus fruits), fruit juice, green vegetables, peppers, tomatoes, potatoes	30mg	35mg 11-15 yrs; 40mg/d 15-18 yrs	

Data Source

Department of Health (1991) Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. London: HMSO.

School Food

Several countries in Europe have recently reviewed the nutritional guidelines for school meals, Table 4 sets outs an example of those for England and Wales.

Table 4. Summary of nutritional guidelines for school meals

Energy	30% of the Estimated Average Requirement (EAR)
Fat	Not more than 35% of food energy
Saturated fatty acids	Not more than 11% of food energy
Carbohydrate	Not less than 50% of food energy
Non-milk extrinsic sugars	Not more than 50% of food energy
Non-starch polysaccharides (fibre)	Not less than 30% of the Calculated Reference Value
Protein	Not less than 30% of the Reference Nutrient Intake (RNI)
Iron	Not less than 40% of the Reference Nutrient Intake (RNI)
Calcium	Not less than 35% of the Reference Nutrient Intake (RNI)
Vitamin A (retinol equivalents)	Not less than 30% of the Reference Nutrient Intake (RNI)
Folate	Not less than 40% of the Reference Nutrient Intake (RNI)
Vitamin	Not less than 35% of the Reference Nutrient Intake (RNI)

Data sources

Health Promotion Wales (1994) *The Health Promoting Playground*. Cardiff: HPW.

Scottish Executive (2000) *Guidance: How to run a successful Safer Routes to School campaign*. Edinburgh: Scottish Executive.

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Factsheet 3

Energy Balance

Energy Balance

Energy balance refers to the relative amounts of energy (or kilocalories[3], commonly termed *Calories*) we take in from food, and the amount we expend on fuelling body metabolism and physical activity.

A person is said to be in 'energy balance' if, over a period of time such as a week or a month, the amount of energy he or she takes in is equal to the amount he or she expends.

Weight is a good indicator of energy balance: weight increases if more energy is taken in than is expended; weight reduces if less energy is taken in than is expended.

If energy intake and expenditure are equal, weight will remain constant.

Energy Intake

Table 5. The average energy intake requirements for boys and girls in kilocalories are:

Age	Boys(kcal/day)	Girls (kcal/day)
7-10 years	1970	1740
11-14 years	2220	1845
15-18 years	2755	2110

(UK Department of Health, 1991)

Energy is provided by specific nutrients in foods and drinks:

- *Carbohydrates*, which should provide approximately *half* of energy needs

- *Fats*, which should provide a maximum of approximately *one third* of energy needs

- *Proteins* can also provide energy, but in a healthy, balanced diet are generally used by the body primarily for their other function - growth and cell renewal.

Energy Expenditure

There are two contributors to energy expenditure:

- Body metabolism (all the functions required to keep the body alive, such as the heart beat, respiration and digestion)

- All movement and physical activity.

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[3] The standard unit of measurement of energy is the kilojoule. However, as kilocalorie (conventionally shortened to Calorie) tends to be used more commonly, we shall adopt the use of kilocalorie in this Factsheet. One kilocalorie = 4.2 kilojoules.

As an example, a weight-maintaining adult with a fairly sedentary lifestyle will have the following energy expenditure:

- Approximately 80% of energy intake is used for body metabolism

- Approximately 20% is for movement and general physical activity.

Most surplus energy not utilised in this way is stored as *fat,* whatever its original source. The body also stores up to 0.5 Kilograms as glycogen, a complex carbohydrate, mostly in the muscles with a small amount in the liver.

Table 6. Average Energy Required Per Hour By 10 Year-Olds For Common Activities (In Kilocalories)

Activity	Boy	Girl
Watching TV	62 kcal	56 kcal
Cooking	108 kcal	99 kcal
Playing rounders	144 kcal	132 kcal
Swimming	246 kcal	226 kcal
Cycling	354 kcal	325 kcal

Activity And Weight

Increasing physical activity levels contributes to weight maintenance or weight loss by:

- burning surplus energy that would otherwise be stored as fat

- burning fat and glycogen stores

- increasing the relative proportion of total energy expenditure accounted for by physical activity.

The amount of energy expended to support basal metabolism and to burn food remains broadly the same in actual, though not in relative, terms.   Individuals who develop substantial muscle mass as a result of increased physical activity may also have a slight increase in the energy requirements for basal metabolism.

Factsheet 4

Food Initiatives In Schools

The European Policy Context

In 2003, the Council of Europe convened a forum in Strasbourg on the topic of eating in school.   A set of guidelines has now been prepared for all member states (Council of Europe, 2004) and it is expected that the Council of Ministers will consider the text of a formal resolution in 2005.

For those working at national level trying to move healthy eating in schools up the political agenda, this will provide a policy context for their work as well as practical guidance on key issues that could influence strategy and operational approaches.

An extract from the Guidelines issued by the Council of Europe can be found in Box 12.

Box 12

'… Recommends that the governments of the member states of the Partial Agreement in the Social and Public Health Field, based on the measures contained in the appendix and having due regard to their specific constitutional structures, national, regional or local circumstances, as well as economic, social, cultural and technical conditions:

a. Review the practices of food provision in school to determine the extent to which these practices (or the absence of these practices) are compliant with, or an integral part of, a health promoting school approach;

b. Consider the elaboration of national provisions and nutritional standards for the provision on food in schools that:

- Acknowledge the changing health status and lifestyles of young people in Europe;

- Take into account the good practices in the provision of healthy food in school in Europe as demonstrated at the European Forum on Eating at School;

- Contribute to the promotion of the health of young people;

- Involve the pupils and all stakeholders in this process;

- Are integrated into the health promotion schools approach;

- Have inbuilt systems of monitoring and evaluation.

c. consider the development of facilitating measures at national and regional level to support schools in the adoption and implementation of policies for healthy eating.

These measures could include start-up resource support, practical tools for the implementation and the development of quality assessment systems.'

Nutrition Standards In School Meals

The Scottish Executive has published nutrition standards for school meals in Scotland, covering issues as diverse as drinking water, special diets, children and young people with special needs, the needs of children and young people from ethnic minority communities, and the nutritional composition of school meals (Scottish Executive, 2003).

Breakfast Clubs

Breakfast clubs now operate in a number of schools and community venues in several different European countries.   Their primary aim is to ensure that children start their day with a healthy breakfast.   Other benefits include the provision of out-of-hours care and access to additional social activities.   Schools that operate a breakfast club have reported positive effects on food choices, toothbrushing, attendance and concentration.

Breakfast clubs take many different shapes and forms, but some of the more effective are known to:

- Encourage the involvement of pupils, families, teachers and the wider community.

- Encourage social interaction in an informal environment among children, parents, volunteers and staff.

- Be clearly structured and organised with rules and membership.

- Be committed to providing non-breakfast activities such as skills-based play.

- Encourage reflective practice and ongoing development.

- Put into practice the values and principles of the Health Promoting School.

- Encouraging school staff to participate in the running of the club or attending the club for breakfast (Scottish Community Diet Project, 2001).

Fruit Provision In Snack Bars

A fruit snack bar is one set up by pupils, parents and/or staff to sell fruit and fruit juice to pupils before, during and after the school day.   Active participation of pupils in running the snack bar - ordering supplies, agreeing prices, making sales, monitoring stock levels and 'marketing' the produce - can result in many educational and social gains in addition to health benefits.

In general, tuck-shop and snack bar policy is currently a matter for individual schools, but the indications are that many are now attempting to promote healthy eating and provide healthy options.

The advantages of a fruit snack bar are:

- Increased opportunities for children to eat more fruit.

- Opportunities to present positive role models as pupils are seen buying and eating fruit.

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- Additional education benefits of running a small shop.

There are some key considerations before setting up a fruit snack bar, such as:

- The level of demand for a fruit snack bar - who will want to buy, and who can be encouraged to buy?

- How will the snack bar be promoted to potential 'customers'?

- What is the optimum mix of adult and children's involvement — who will do what?

- Where will the snack bar be sited?

- What will its opening hours be?

- Who will buy and sell the fruit?

- Who will wash the fruit (and prepare it, where necessary)?

- How and where will the fruit be stored?

- Who will price the products?

- Who will ensure pupils and staff washing, handling and selling the fruit are following food hygiene procedures?

- How does the snack bar complement school policy on pupils carrying money?

- How does the snack bar complement school policy on snacking and breaktimes?

In England there is a national school fruit and vegetable scheme which will deliver a free piece of fruit or vegetables to every child between the ages of four and six years.

Healthy Vending

Vending machines in general have attracted criticism for allowing children easy access to high-fat, high-sugar, high-salt snacks, but there is nothing inherently unhealthy about vending machines, and they can be used to offer healthier food options to promote healthy eating in schools. The food is provided in a convenient and appealing way that has proved popular with young people. Many Scottish schools are now using vending machines to promote healthy options such as fresh water.

The Food Standards Agency is currently preparing a healthy drinks vending machine booklet offering guidance (publication scheduled late 2004/early 2005), and the Department of Health in London is preparing guidance on healthy snack vending machines (publication due late 2004/early 2005).

Healthy vending machines can be most effectively operated by the school catering service and provide both snacks and cold meal options. The advantage of this approach is that food items are sourced by the catering service, but school staff and pupils may have less control over which items are sold. Alternatively, the machines can be operated by the

school itself, offering mainly snacks as an alternative to a tuck-shop.   This allows the school to maintain control over the balance of food and drink items sold, but is reliant on school staff to manage all operational aspects of the machine, including delivery of food, stocking, and dealing with finances.

Pupil involvement in operating healthy vending machines or making decisions about the type of food provided has been shown to contribute positively to their success and provides a good opportunity for promoting pupil participation in the whole life of the school. *Hungry for Success* (Scottish Executive, 2003) has called for national guidance on vending machines in schools.   In Scotland, commercial suppliers are no longer allowed to advertise their products on the fascia of vending machines when these are located in the dining room.

The Dining Room Environment

The physical environment of the school dining hall or canteen can make a significant impact on the lunchtime experience for both pupils and staff.   Opportunities for improving the dining hall environment include:

- Displaying pupils' work, especially curricular work relating to food or eating.

- Putting up notice boards to display healthy eating posters and other relevant information.

- Enhancing the appearance of the room by installing plants.

- Installing a music system, with consultation and agreement on the type of music played.

- Establishing and displaying dining hall 'rules' in consultation with teachers, pupils and kitchen staff.

- Displaying weekly menus.

- Initiating an awards system in the dining hall, for example, for 'Best Table' (primary schools).

School Nutrition Action Group (SNAG)

A SNAG is a school-based alliance in which teaching staff, pupils, parents and caterers, supported where appropriate by health and education professionals, work together to review and expand the school food service.   This approach has developed in several European countries and SNAG's tend to concentrate on a number of specific aspects of food provision, such as:

- Midday meals.

- Snacking and break-times.

- Breakfast provision.

- Vending machines.

- Social aspects of eating.

- How the food service articulates with the school curriculum.

The SNAG aims to increase healthy eating and ensure that healthy eating messages are delivered consistently throughout the school.

Eating In School And Environmental Issues

There are a wide range of initiatives in Europe such as 'ecoschools' 'growing schools' and 'Grounds for Learning' which promote environmental issues and which overlap and make links with the healthy eating agenda.   For example in giving young people the opportunity to grow vegetables and develop a practical understanding of from where their food comes.

There is a growing environmental movement promoting local food and/or organic food for schools and this is particularly strong in Germany, Italy and some other European Countries.

Grounds for Learning(GfL) is a school grounds charity in Scotland running a programme designed to help schools use and develop their grounds for positive play, learning and growth.   Their programme 'Start Growing Upwards' provides support to successful schools in using school grounds to grow gardens.   Children are encouraged to grow greeneries, including vegetables, which can then be incorporated into school meals. Ideas for new projects and information on past projects that have used school grounds are available on the website.

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Scottish Executive (2003) *Hungry for Success*. Edinburgh: The Stationery Office.

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The following list of website links may be useful when searching for policy initiatives related to food in schools in Europe.   Some of the sites are broader in their interests and not necessarily specific to the school setting.   Please note the inclusion of an address does not imply any formal endorsement by the authors of this publication.   However many of them will prove useful to trainers and users of this manual.

www.coe.int
www.euro.who.int/nutrition
www.who.int/gb/EB_WHA/PDF/EB113/eeb11344.al.pdf
(the above is the draft global strategy on diet physical activity and health)
www.euro.who.int/HFADB
www.euro.dk/ENHPS
www.europa.eu.int
www.hbsc.org
www.unicef.org
www.fao.org
www.young-minds.net
http:///www.sustainweb.org
www.food.gov.uk
www.eufic.org
www.egmondconference.nl
www.sante.gouv.fr
www.pipsa.org
www.mediatheque.be
www.motives.be
www.atablecartable.be
www.nigz.nl
www.schoolslag.nl
www.dge.de
www.wiredforhealth.gov.uk
www.food.gov.uk
www.nutrition.org.uk
www.doh.gov.uk/fiveaday
www.eco-schools.org.uk
www.face-online.org.uk
www.countrysidefoundation.org.uk
www.teachernet.gov.uk/growingschools
www.gflscotland.org.uk
www.scotland.gov.uk/Library5/education/hfs-00.asp
(hungry for success report)
www.healthyliving.gov.uk
www.nhshs.org
www.abdn.ac.uk/acero

Factsheet 5

Dental And Oral Health In Young People

General Trends

- According to the World Health Organization, an estimated 5 billion people worldwide have experienced dental carries.

- Oral diseases are among the most common of all illnesses in Europe.   The impact of oral diseases to people (at any life-stage) in pain, suffering, impaired function and reduced quality of life, is extensive and expensive.

- The geographical differences in tooth-brushing frequencies among 11 to 15 year olds in Europe are large.

- Only a small proportion of children, parents and teachers world wide is aware of the harmful effects of hidden sugars and sugary drinks according to a WHO report.

Socio-Economic And Gender Differences

- In most European countries children from economically disadvantaged backgrounds are much more likely to have dental decay.

- Girls tend to brush their teeth more often than boys in most European countries

Children's Attitudes And Behaviours In Relation To Oral Health

- Young children's attitudes to oral/dental health are greatly influenced by media images of good teeth.

- Research in Scotland for the preparation of a classroom resource indicated that following.   Many young people think teeth are healthy only if they are white, shiny and even.   Few children have a full understanding of what constitutes a healthy mouth and gums.   Most children understand the negative impact of sugar on dental health, but do not understand that frequency of consumption of sugary foods is an important determinant of damage.   Many children do not understand that the sugar in sweet drinks deposits a coating on the surface of their teeth.   Most children do not understand that fluoride plays a vital role in protecting teeth and reducing the risk of dental caries.

- Almost one third of young people in Europe eat sweets or chocolates once or more a day.   Young people report eating sweets less frequently in Denmark, Finland Norway and Sweden. Malta has the highest level of daily consumers.

- Daily soft drink consumption ranges from 8% to 56% for 15 year olds in Europe. The frequency with which young people report drinking soft drinks exceeds that of eating fruit in 17 countries.

- Both diet and sugary fizzy drinks have been implicated in erosion (acid damage) of adolescents' teeth.

Prevention Of Dental Disease

- Dental and oral health should not be seen in isolation from general health, lifestyle and dietary issues.

- Diet - especially the intake and frequency of intake of sugars - is known to have an impact upon the development of tooth decay.

- Smoking is linked to the development of gum (periodontal) disease and oral cancer.

Key Steps To Good Dental And Oral Health

- *Diet*: reduce overall intake and especially the frequency of consumption of sugar-containing foods and drinks.   These foods and drinks are best consumed at mealtimes only.

- *Tooth-brushing*: brush the teeth thoroughly twice every day with a fluoride toothpaste, preferably after breakfast and last thing at night before bed.

- *Dental attendance*: register with a dentist and have an oral examination at least twice a year.

Data Sources And References

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Factsheet 6

Biological Changes In Puberty

General Trends

- During puberty, the body changes in shape and size. There are changes in the internal reproductive organs and secondary sex characteristics develop.

- In early puberty, leg growth predominates because of increasing growth hormone secretion. As puberty progresses towards reproductive maturity, increasing secretion of hormones (testosterone in boys and oestrogen in girls) stimulate further limb and spinal growth and bring about genital, pubic and underarm hair development.

- Growth and pubertal development are the result of a complex interaction of genetic, constitutional, nutritional, endocrine, psychosocial and socio-economic factors.

- There is an enormous range of 'normality' for the timing of puberty.

Physical Changes In Female Puberty

- Changes in female puberty include the following:

- *Rapid growth acceleration (growth spurt):* occurs early, with the fastest growth occurring before mid-puberty; by the time of onset of periods (menarche), the speed of height increase is slowing down.

- *Breast development:* the average age is 10.5 years, with 95% starting between 8 and 13 years. The average time from the start of puberty to the end of breast development is 3 to 4 years (but with a wide range - 1.5 to 5 years).

- *Appearance of pubic hair:* usually appears around six months after breast development begins.

- *Growth in size of uterus (womb):* doubles in size by mid-puberty and enlarges 5-fold by the stage of adult breast development.

- *The onset of periods (menarche):* a relatively late event, at an average age of 12.8 years; 95% reach menarche between 11 and 15 years. Periods are often irregular for 1-2 years.

Physical Changes In Normal Male Puberty

Changes in male puberty include:
- *Testicular enlargement*: generally the first sign of puberty, the average age is 11.5 years; 95% occurs between 9.5 and 13.5 years. The penis does not enlarge during this first stage of pubertal development. It is common for one testis to be larger during sexual maturation. The average time from pubertal onset to full secondary sexual development is 3 to 4 years.

- *Acceleration of growth in height:* does not start until around mid-puberty, and fastest growth does not occur until two to three years after puberty has started. Until then, boys grow (increasingly) slowly and may need reassurance that this is normal, particularly in the context of being overtaken by younger sisters or female peers. Little further growth can be expected after the appearance of underarm and facial hair and the breaking of the voice. The 14cm difference between the average heights of men and women largely reflects the greater pubertal growth spurt in boys, which is on average around 20cm.

- *Start of sperm production:* from mid-puberty onwards.

- *Appearance of underarm and facial hair:* these develop late, as does breaking of the voice.

The Hormonal Background

Pulsatile secretion of hormones from the hypothalamus in the brain is important in pubertal sexual maturation, but the onset of puberty does not result from sudden activation. There is increasing hormonal activity from well before the observable onset of puberty.

As puberty progresses, the pituitary gland is directed by the hypothalamus to release larger pulses of hormones approximately every two hours and increasingly by day as well as night. Twenty-four hour pulsatile release is necessary for full pubertal development, menarche and ovulation.

Increasing sex hormone (testosterone or oestrogen secretion from testicles or ovaries respectively) production results in the physical changes of puberty.

As well as altering body size and shape and physical strength, hormone production also has effects on brain maturation, with influences on cognitive development, behavioural characteristics and psychological functioning.

Girls (as a group) seem to mature psychologically and cognitively earlier than boys (as a group).

Nutrition, Metabolic Signals And Puberty

- Children who eat and gain weight excessively in childhood generally grow rapidly, enter and progress through puberty earlier than average, and reach final height at a younger than average age.

- Anorectic behaviour has been suggested as a cause of delayed puberty in some boys and girls. Eating disorders are becoming more common in adolescents and are associated with chronic disease, but pubertal delay has no obvious environmental link in most young people.

- Genetic factors are a more plausible explanation of pubertal delay, although the precise mechanism has not yet been found.

- Intensive training for competitive sporting activities can markedly delay puberty and slow growth, particularly in girls. Delayed menarche (approximately five months delay per year of training) or cessation of periods is commonly associated with intensive distance running, swimming, ballet dancing, skating, gymnastics, rowing and weight-lifting. Catch-up growth can occur if exercise stops at a sufficiently early age. Energy (kilocalorie) restriction, weight reduction and intense physical activity may all contribute.

The Impact Of The Timing And Tempo Of Puberty

- There is great variation in the tempo of progression for both boys and girls, and no absolute age at which the timing of puberty becomes abnormal.

- Only approximately 3% of boys or girls will have started puberty by nine and eight years respectively, and only 3% will have no signs of puberty by about 14 and 13.5 years respectively.

- In normally nourished children, genetic factors are likely to be of paramount importance in the timing of puberty onset.

- Children who are relatively early or relatively late developers may have more psychological stress because they seem different to the majority of their peers.

- The age of puberty became earlier through most of the 20th century. The mean age of a girl having her first menstruation in 1840 was 16.5 years and is now 12.8 years. In many European countries this decline has stopped in the last generation and a small increase in the average age of first menstruation has been observed.

Growing Pains

- Growing pains affect one in every six children aged 6-11 years, predominantly girls. No cause can be found.

- The child usually complains of intermittent pain deep in the muscles of the arms and/or legs, generally in the front of the thighs, in the calves and behind the knees, away from the site of joints. He or she may also feel restlessness in the arms or legs.

- The pains range from a mild ache, sometimes associated with tiredness, to severe pain that may waken the child from sleeping.

- The discomfort may come on suddenly or gradually, does not occur every day, and affects the child late in the day and in the evening. It has usually gone by the morning.

- In older children, the pain may resemble cramps, 'creeping sensations' or restless legs.

- While uncomfortable and sometimes distressing for the child, growing pains are harmless and self-limiting.

- Where they are persistent, affect the joints or are accompanied by redness or swelling, medical advice should be sought as a more serious condition may be present.

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Factsheet 7

Water

Functions Of Water

All body systems depend on water for normal functioning.   For example, water:

- Is an essential component of all body cells.

- Accounts for 50-80% of body weight.

- Plays a key role in the digestion, absorption, transportation and use of nutrients.

- Acts as a medium for transportation of minerals, vitamins, amino acids (proteins), glucose and many other nutrients.

- Is the medium in which all the chemical reactions in the body take place.

- Is the medium for safe transportation of toxins from the body.

- Is central to regulation of body temperature.

- Is essential for normal cognitive and intellectual function.

- Is part of the lubrication fluid inside joints.

Risks Of Dehydration

- Dehydration is defined as the loss of 1% or more of the body's weight due to fluid loss.

- It causes a lowering of blood volume and reduces blood flow to muscles and the brain.

- Short-term dehydration produces: reduction in physical and mental performance; acute discomfort of thirst; irritability; headache.

- Long-term dehydration produces: higher risk of kidney stones; higher risk of urinary tract infections; dental disease due to reduced saliva production; possible link with cancers of the renal tract, colon and breast.

- In extreme cases, dehydration can lead to constipation, bed wetting and a dry cough in children.

Water In Schools

Access to fresh drinking water is increasingly being identified as a key issue for schools. It is becoming evident that in some schools, drinking water outlets are placed in restricted areas such as kitchens, where pupils have limited or no access rights.   Alternatively,

drinking water may only be available in toilet areas, which some pupils may find unacceptable. While there is a legal requirement to supply water fit for drinking in schools, there are no stipulations on accessibility. The issues related to water quality standards are changing in many European countries because schools now have to conform to the European Commission Directive 98/83/EC. Some aspects of this had to be met by November 2003 but in relation to lead in water, the new standard of ten micrograms per litre (replacing 50 micrograms per litre) has to be met before 2013.

A survey carried out in England (Haines et al, 2000) showed:

- Access to drinking water for children in schools was very variable.

- 10% of the schools had no drinking facilities.

- More than half of the schoolchildren in one group of schools could only access drinking water from sink taps in toilets.

Various options exist for schools wishing to increase the availability of drinking water for staff and pupils, such as:

- Installation of water dispenser machines. These machines can be purchased by the school and plumbed to the mains system. Water from the mains pipe is then filtered and chilled. Ongoing costs include system maintenance and purchase of plastic cups. An alternative to attaching the machine to the mains is to purchase replaceable containers of water.

- Installing water fountains, which can be a quick and convenient way of providing drinking water. They must be situated in a central, open location such as the school entrance hall or physical education area, rather than in the school toilets.

- Keeping large water containers in the classroom for use by teachers and pupils throughout the day. These can be filled as necessary from a central source of drinking water.

- Selling bottles of drinking water in tuck-shops or vending machines as an alternative to sugared, fizzy drinks.

- Providing adequate amounts of drinking water that is free, fresh and chilled, with drinking vessels, within the dining room (Scottish Executive, 2003).

When To Drink Water

- Frequent drinks throughout the day are best, whether feeling thirsty or not.

- Children who are exercising strenuously will need more than usual amounts of water to replace loss; needs for water will also increase during spells of hot weather and when the classroom is particularly warm.

- Children should be encouraged to drink water throughout the school day, and not just at break times.

- Some consideration for toilet breaks for individuals outwith scheduled times may be necessary.   It is also important to ensure that the toilets are considered safe and clean by children, so they are not prevented from drinking plenty of water.

What Schools Can Do

- Give children at least three fluid breaks per day at school.

- Enable children to drink extra water after physical education or active play and in hot weather.

- Devise a policy that enables and encourages children to drink water regularly throughout the day without the risk of cross infection and bullying.

- Ensure that the school's water supply is sufficiently attractive to children.

Data Sources And References

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Factsheet 8

The Media

Key Points

- Media is a term used to cover electronic and printed forms of communication used to inform, influence and entertain.

- Examples of media are television, radio, the internet, magazines, newspapers, advertising and video games.

- Children and young people are consumers of many forms of media and their views may be shaped by them.

- There is a growing concern that young people's attitudes to food and body image are influenced by the media.

- Educating children and young people in media literacy may help counteract negative media influence.

Media Influence

- In some countries such as Scotland, around one in three school pupils say they watch at least four hours of television each weekday.

- This figure is similar to the rest of the UK but considerably higher than in some other European countries such as France.

- A study published in 1998 showed nearly all households with children in the UK had a TV and video, nearly half had cable or satellite TV and two thirds had a TV-linked games machine.

- There is a media rich 'bedroom' culture in some European countries in which many children have a variety of electronic media in their bedrooms.

- In some countries a growing numbers of households have access to digital or satellite multi-channel television systems.

Media Literacy

- Media literacy includes being able to tell the difference between fact and fiction, whether something is realistic or not and where the advertiser/programme maker is 'coming from' or what their agenda is.

- A London School of Economics study says children will need to 'appraise critically and assess the relative value of information from different sources and gain competencies in understanding the construction, forms, strengths and limitations of screen-based content' (Livingstone and Bovill, 1998).

- Young people claim to 'channel hop' between programmes; they shut down 'pop-up' ads on the internet but do remember strong ads.

Media And Food/Body Shape

- In Britain a study by the British Medical Association stated that approximately 70% of children's advertising is food-related.   More than half of this advertising is for products high in sugar, fat and salt.

- Food promotion is not just about advertising but also 'tie-ins' such as linked merchandise and special promotions - getting a toy from a favourite television programme in a breakfast cereal, for example.

- Research shows that food adverts, including signs on vending machines, influence what they choose.   Young people who start smoking also tend to be more aware of tobacco advertising than those who don't.

- The media provide images of beauty which may influence young people's perceptions of acceptable body image.

- Female TV presenters, actors and celebrities appear to come under more pressure to be thinner than average.

- Children who watch more TV are likely to have poorer eating habits.

- Women's magazines contain 10 times as many advertisements and articles about weight loss as men's magazines.

Regulation And Calls For Further Action

- There is a 9pm 'watershed' for UK television to protect children from programmes deemed unsuitable due to, for example, sexual content, violence or bad language.

- Legislation to ban tobacco advertising and promotion in the UK was passed in 2002.

- In Sweden, there are restrictions on advertising to children aged under 12 - Several other European countries are debating this issue.

- Codes governing TV are supposed to prevent hidden or surreptitious forms of advertising such as product placement.   This is where shots of sometimes harmful products like cigarettes are deliberately used in programmes in order to promote them.   However, there are concerns that these codes are not properly enforced.

- Likewise, in Britain there are voluntary codes relating to advertising and marketing of products such as alcohol, but unless significant numbers of consumers complain the issues raised by the code are often disregarded.   For example the association of drinking alcohol with social success is forbidden by the code but is in fact a frequent theme in advertisements.

Definitions

- *Media literacy* is the ability to appraise media and where its makers are coming from in a critical way.

- *Marketing* is an overarching technique to sell a product or promote a behaviour. It's the whole process of planning, pricing, promoting and distributing a product.

- *Social marketing* is the planning and implementation of programmes designed to bring about social change using concepts from commercial marketing.   An example is the Health Scotland *Stinx* campaign.

- *Advertising* is generally used by companies or organisations who pay to promote their products through, for example, advertisements on television, radio, in newspapers and magazines and on billboards.

- *New media tools* include marketing via text message and on the internet.

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