



# ENVIRONMENTAL HEALTH

# SUMMARY

- What does Environmental Health mean?
- Some general healthy habits.
- Specific risks related to food:
  - Pesticides.
  - Plastic containers for packaging.
- Some risks inside our homes:
  - Indoor air pollution.
  - Dangerous materials than can be found in our buildings.
- Chemicals in our clothes.
- Cosmetics.
- Do we live in a healthy city?



# SPECIFIC RISKS RELATED TO FOOD

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the frame, creating a modern, layered effect against the white background.

# Pesticides

**Pesticides are substances to control pests, weeds, etc**

In general, a pesticide is a chemical or biological agent that deters, incapacitates, kills, or otherwise discourages pests...

**But many of these substances can have potential toxicity for human health:**

- from simple irritation of the skin and eyes to
- more severe effects such as affecting the nervous system, mimicking hormones, reproductive problems, and even cancer.



# How can you avoid pesticides in your food?

- ▶ **Buying organic and locally-grown fruit and vegetables.**
- ▶ **Washing fruit and vegetables before eating them.**
- ▶ **Growing your own products.**
- ▶ **Peeling fruit and vegetables to reduce dirt, bacteria, and pesticides.**
- ▶ **Trimming** fat from meat.



# Safe and unsafe plastics

The numbers are known as recycling symbols and their meaning is the material of each plastic bottle.

- Number 1: this plastic should only be used once
- Number 2: this plastic can be reused, and it is safe.
- Number 3: avoid the use of this plastic.
- Number 4: this plastic can be reused.
- Number 5: the safest plastic
- Number 6: is difficult for recycling
- Number 7: This plastic is dangerous to health.

Symbol	Polymer Name	Product Examples	
	Polyethylene Terephthalate (PETE or PET)	<ul style="list-style-type: none"> <li>• Soft drink bottles</li> <li>• Water bottles</li> <li>• Sports drink bottles</li> <li>• Salad dressing bottles</li> <li>• Vegetable oil bottles</li> </ul>	<ul style="list-style-type: none"> <li>• Peanut butter jars</li> <li>• Pickle jars</li> <li>• Jelly jars</li> <li>• Prepared food trays</li> <li>• Mouthwash bottles</li> </ul> 
	High-density Polyethylene (HDPE)	<ul style="list-style-type: none"> <li>• Milk jugs</li> <li>• Juice bottles</li> <li>• Yogurt tubs</li> <li>• Butter tubs</li> <li>• Cereal box liners</li> </ul>	<ul style="list-style-type: none"> <li>• Shampoo bottles</li> <li>• Motor oil bottles</li> <li>• Bleach/detergent bottles</li> <li>• Household cleaner bottles</li> <li>• Grocery bags</li> </ul> 
	Polyvinyl Chloride (PVC or V)	<ul style="list-style-type: none"> <li>• Clear food packaging</li> <li>• Wire/cable insulation</li> <li>• Pipes/fittings</li> <li>• Siding</li> <li>• Flooring</li> </ul>	<ul style="list-style-type: none"> <li>• Fencing</li> <li>• Window frames</li> <li>• Shower curtains</li> <li>• Lawn chairs</li> <li>• Children's toys</li> </ul> 
	Low-density Polyethylene (LDPE)	<ul style="list-style-type: none"> <li>• Dry cleaning bags</li> <li>• Bread bags</li> <li>• Frozen food bags</li> <li>• Squeezable bottles</li> <li>• Wash bottles</li> </ul>	<ul style="list-style-type: none"> <li>• Dispensing bottles</li> <li>• 6 pack rings</li> <li>• Various molded laboratory equipment</li> </ul> 
	Polypropylene (PP)	<ul style="list-style-type: none"> <li>• Ketchup bottles</li> <li>• Most yogurt tubs</li> <li>• Syrup bottles</li> <li>• Bottle caps</li> <li>• Straws</li> </ul>	<ul style="list-style-type: none"> <li>• Dishware</li> <li>• Medicine bottles</li> <li>• Some auto parts</li> <li>• Pails</li> <li>• Packing tape</li> </ul> 
	Polystyrene (PS)	<ul style="list-style-type: none"> <li>• Disposable plates</li> <li>• Disposable cutlery</li> <li>• Cafeteria trays</li> <li>• Meat trays</li> <li>• Egg cartons</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out containers</li> <li>• Aspirin bottles</li> <li>• CD/video cases</li> <li>• Packaging peanuts</li> <li>• Other Styrofoam products</li> </ul> 
	Other Plastics (OTHER or O)	<ul style="list-style-type: none"> <li>• 3/5 gallon water jugs</li> <li>• Citrus juice bottles</li> <li>• Plastic lumber</li> <li>• Headlight lenses</li> <li>• Safety glasses</li> </ul>	<ul style="list-style-type: none"> <li>• Gas containers</li> <li>• Bullet proof materials</li> <li>• Acrylic, nylon, polycarbonate</li> <li>• Polylactic acid (a bioplastic)</li> <li>• Combinations of different plastics</li> </ul> 

# Some advice to avoid exposure to chemicals

- ▶ **Eat fresh food when possible and try to avoid plastic storage containers.** They can contain chemicals that can leach into your food. .
- ▶ **Don't microwave food or drinks in plastic containers** because it can release chemicals into food.
- ▶ Avoid plastic with recycling **codes 3** (which means it contains phthalates), **6** (styrene), and **7** (bisphenols).



# Alternatives to plastic to store food

There are other options for our day, that can help us to reduce the use of plastic.

- Jars and crystal containers.
- Stainless steel containers and thermos.
- Organic cotton bags, you can also use neoprene food bags.
- Bottles of crystal and stainless steel
- Wraps made of cotton or hemp fabric, covered with beeswax.



# SOME RISKS INSIDE OUR HOMES

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# Indoor air pollution

Indoor air pollution is defined as the term used to describe exposure to certain substances found in homes, schools, transportation ...

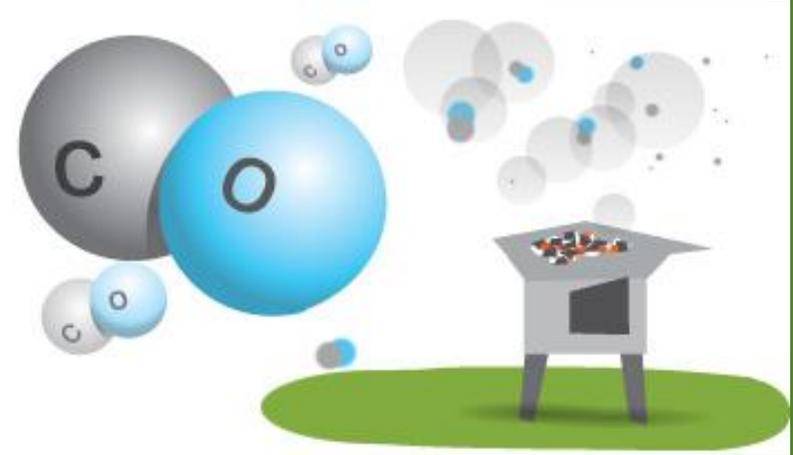
It can cause health problems such as respiratory diseases (for example, asthma), allergies and possibly lung cancer. The most important contaminants in indoor air are:

- ▶ Carbon monoxide
- ▶ Tobacco: second hand smoke
- ▶ Radon
- ▶ Other dangerous chemicals: cleaning products, pesticides, etc
- ▶ Germs
- ▶ Etc



# CO

- Carbon monoxide is a gas without colour or smell. It is a by-product of incomplete combustion.
- The symptoms of CO poisoning resemble those of a cold, flu or allergy. Low CO concentrations can cause headache, lethargy, weakness, nausea and muscle ache.
- Higher concentrations cause paralysis, coma and even death, if the intoxication is not treated in a timely manner.



# Tips to prevent CO intoxication

- ▶ Change the batteries in your CO detector every six months.
- ▶ Never run the engine of a car parked in an enclosed or partially enclosed space.
- ▶ Never operate a car, within 20 feet from a window or an open door or an air outlet through which exhaust gases can penetrate an enclosed area.
- ▶ Never use a charcoal grill, or a portable stove inside a house, tent or motor home.



# Tobacco

Tobacco is one of the main risk factors of several chronic diseases, such as cancer and pulmonary and cardiovascular diseases. Despite this, many people still smoke.

Children are very vulnerable to passive smoking because they cannot avoid exposure to tobacco if tobacco is present.

The most important causes of death related to tobacco use are:

- Heart diseases.
- Cancer.
- Respiratory diseases.

Tobacco acts as a risk factor for cardiovascular diseases.



# Strategies to maintain your home without tobacco smoke

- ▶ Never smoke indoors, even when it is cold outside.
- ▶ Try to create a comfortable place to smoke outdoors.
- ▶ Inform guests that they should not smoke in your house, and indicate a place to smoke.
- ▶ The vapor or aerosol of electronic cigarettes also contain chemicals.



# Dangerous materials

In our houses there are a lot of dangerous materials, although we are not always aware of.

➤ **Household paintings** can contain:

-VOCs: which can produce cancer.

-Toluene: which can cause dermatitis, effects on the nervous system such as memory loss

➤ **Asbestos**: although this material was prohibited, there are still houses with it. It can cause lung cancer, mesothelioma and asbestosis.

➤ **PVC**: used in the production of some types of pipes. They contain phthalates and dioxins which interfere with the production and normal activity of human hormones .

➤ **Flame retardants**: they were incorporated in construction materials. They can also cause disruption of hormones.



# CHEMICALS IN OUR CLOTHES

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# Textile industry

The textile industry is the second largest fresh water polluter worldwide. More chemical substances are used to turn raw materials into textiles.

Approximately 10 percent of these are hazardous to human health or the environment.

Many companies have a compromise for 2020 to eliminate hazardous substances from this industry.

- Alkylphenols.
- Phthalates
- Flame retardants
- Carcinogenic amines.
- Heavy metals: cadmium, lead, mercury and chromium.

All entail a risk to the environment and health.



# Some ecological options for synthetic fabrics

These are fabrics of vegetal origin

→ Cotton: Organic cotton is processed without chemical treatment.

→ Linen: It is an ecological fabric. It grows naturally, without the need of fertilizers or pesticides.

→ Tencel: it comes from renewable raw wood materials...

This is fabric of animal origin:

→ Wool: Shearing of sheep that are raised with organic pastures.



# COSMETICS

[https://www.youtube.com/watch?time\\_continue=139&v=X9\\_xbvPiamc](https://www.youtube.com/watch?time_continue=139&v=X9_xbvPiamc)

# How do you avoid toxic products in cosmetics?

To prevent the consumption of toxins in your daily hygiene:

- Reject products that have:
  - ALUMINIUM
  - PARABENS
  - SODIUM LAURYL SULFATE
  - PHTHALATES
  - NANOPARTICLES
  - PARAFINES
  - TRICLOSAN
- Use natural cosmetic products based on natural ingredients, not tested on animals and with eco-friendly packaging: recycled and / or recyclable.
- Prepare your own hygiene products.

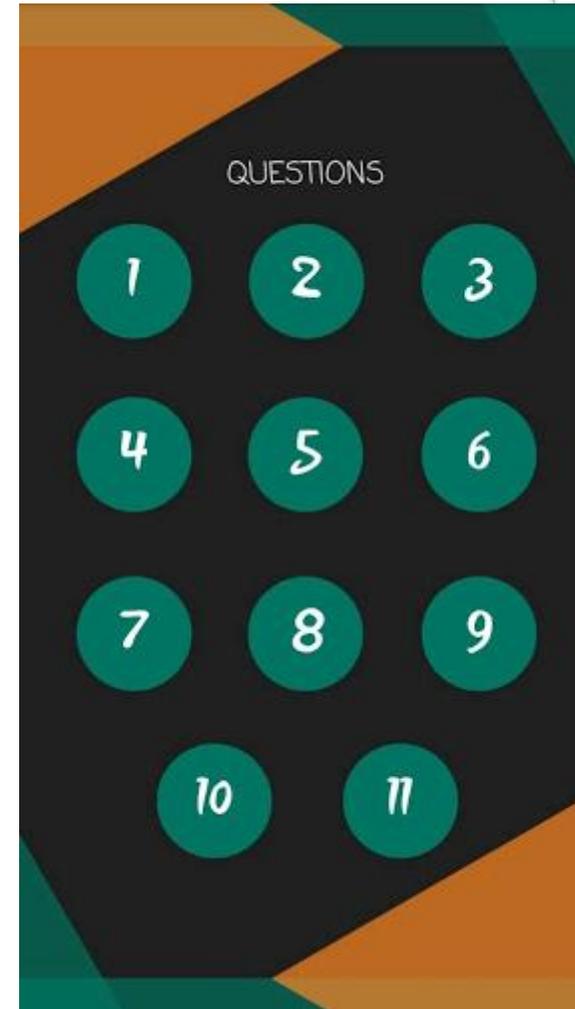
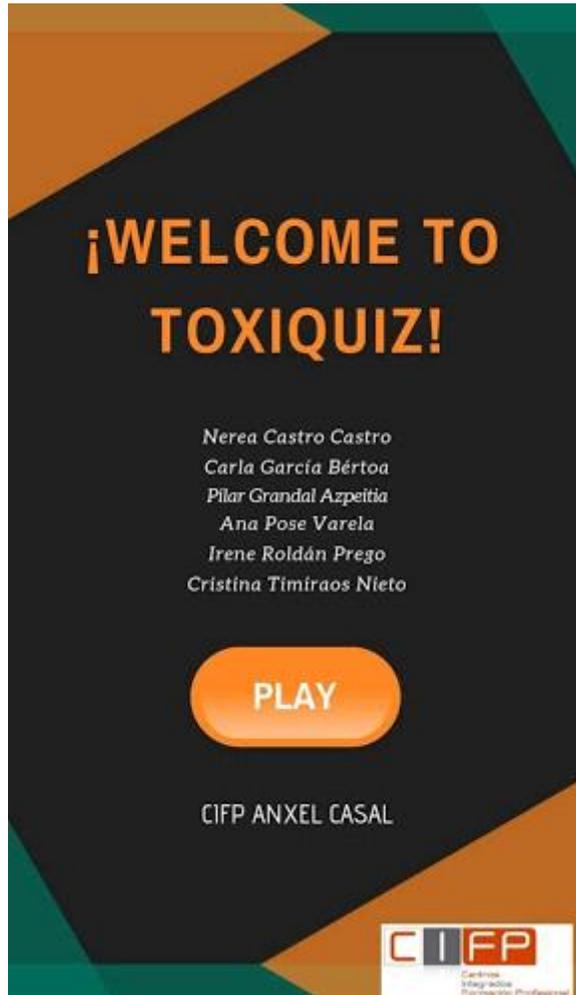


# General tips

Follow these safety guidelines when using cosmetic products of any type:

- **Read the label.** Follow all the instructions and pay attention to all the warnings.
- Wash your hands before you use the product.
- **Do not share makeup.**
- **Keep the containers clean** and tightly closed when not in use, and protect them from extreme temperatures.
- Throw away cosmetics if there are changes in colour or smell.
- Use aerosols or sprays cans in well-ventilated areas. Do not use them while you are smoking or near an open flame.





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