

Inspiring and Insightful How to attractively communicate data

16.11.2023, Ostrava

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Unit Press and Public Relations

Department Risk Communication

German Federal Institute for Risk Assessment (BfR)



BfR | Identifying Risks – Protecting Health

- Independent research institution
- in the remit of the Federal Ministry of Food and Agriculture (BMEL)
- Assessment of health risks posed by food, feed, products or chemicals
- Research to expand the knowledge on which assessments are based
- Communication and consultation with various stakeholders



Food and eating is pleasure



The majority of Europeans associate food and eating with pleasure, such as selecting fresh and tasty foods (58 %) and with enjoyment of meals with friends and family (54 %).

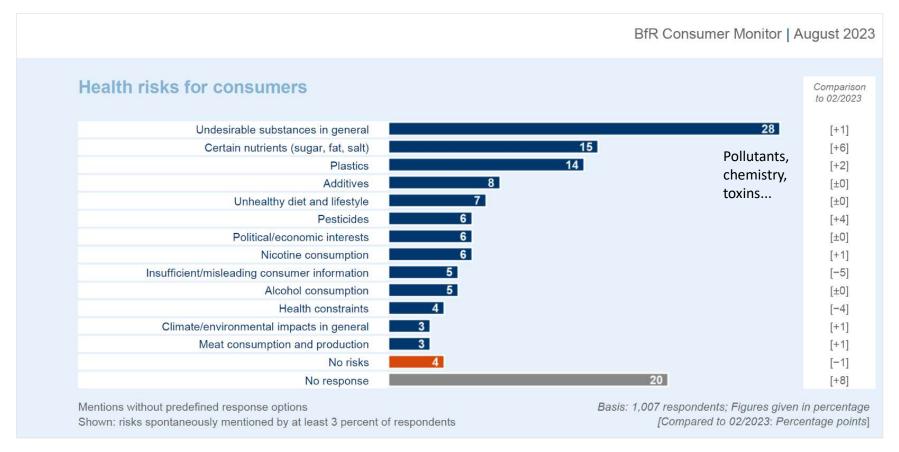
Info: https://www.efsa.europa.eu/en/corporate/pub/eurobarometer10

Slightly more than half of the population rates food that can be bought in Germany as **safe or very safe.**

Info: https://www.bfr.bund.de/cm/350/bfr-verbrauchermonitor-02-2023.pdf



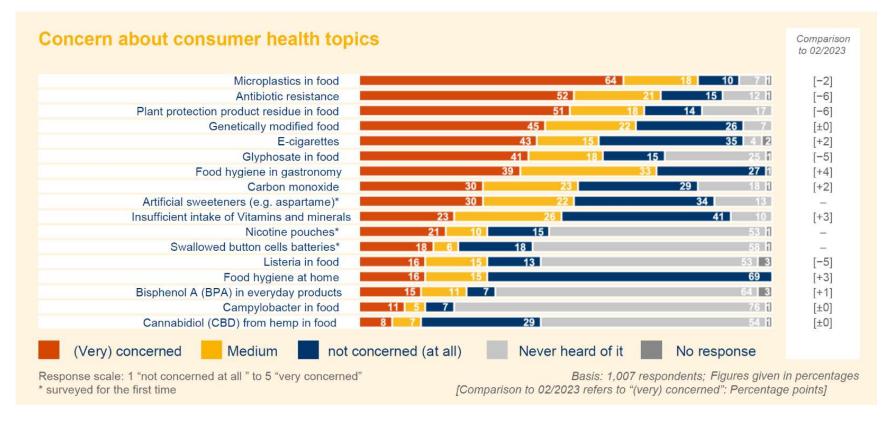
In your opinion, what are the biggest health risks for consumers?





How concerned are you personally about the following consumer health topics?

BfR Consumer Monitor | August 2023

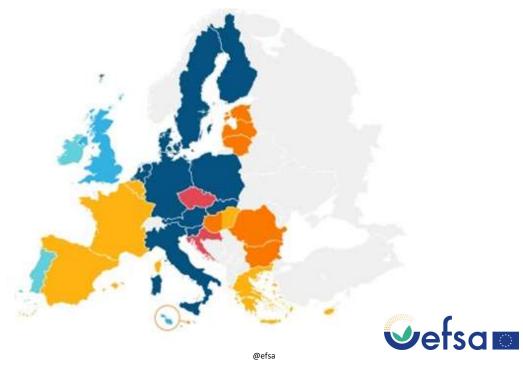




What topics concern Europeans most?

2022 Eurobarometer on Food Safety in the EU

- Pesticide residues in food
- Additives
- Diseases found in animals
- Antibiotic, hormone or steroid residues in meat
- Food hygiene
- Food poisoning from bacteria





Transparent data access as the basis for trustworthyness



More transparency in the assessment of health risks

New rules on transparency and sustainability in the EU food safety system

- A European regulation on transparency standards in EU health risk assessment in the food chain (2021)
- Citizens can now find out about scientific studies and information provided by applicants at an early stage in the EU risk assessment process.



@BfR2GO



BfR-MEAL study: What's in our food

Results freely available since February 2023



BfR investigated for the first time in Germany on a large scale how much of which substance are contained in prepared food.

We ananlysed around 60,000 foodstuffs for almost 300 desirable and undesirable substances, including heavy metals, mould toxins, pesticide residues and nutrients.

The first results are now available in a public and free *Public Use File*.

BfR

BfR-MEAL study

A virtual tour

https://www.bfr.bund.de/meal-studie/DE/vr.html







From Data to Messages



Occurance data of foods, prepared as typically consumed, of the BfR MEAL study





1	A	В	C	D	E	F	G	Н	1	J	K	L	M	
1	Main food group	MEAL food pool	MEAL-Lebensmittelpool	Sampling year	Subsamples (n)	Agriculture production [conventional, organic, nonspecific]	Season [season 1, season 2, no seasonality]	Region [north, south, east, west, no regionality]	Module-specific stratification	Substance	Internal standard	Method [name of the method used in the analysis]	Measurement uncertainty	
2	Grains and grain-based products	Amaranth	Amaranth		20	nonspecific	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kç
3	Grains and grain-based products	Biscuits	Plätzchen, Kekse		20	nonspecific	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kg
4	Grains and grain-based products	Biscuits with cocoa filling			20	nonspecific	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kg
5	Grains and grain-based products	Bread dumpling, Bohemian dumpling			20	nonspecific	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kç
6	Grains and grain-based products	Breakfast cereals		2016	20	nonspecific	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kg
7	Grains and grain-based products	Buckwheat		2019	20	nonspecific	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kç
8	Grains and grain-based products	Cereal cracker, puffed		2016	15	organic	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kg
9	Grains and grain-based products	Cereal cracker, puffed		2016	15	conventional	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kg
10	Grains and grain-based products	Cheese cake		2018	15	nonspecific	no seasonality	east		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kg
	Grains and grain-based products	Cheese cake		2018	15	nonspecific	no seasonality	south		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
	Grains and grain-based products	Cheese cake	Käsekuchen	2018	15	nonspecific	no seasonality	west		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kç
	Grains and grain-based products	Cheese cake	Käsekuchen	2018	15	nonspecific	no seasonality	north		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
	Grains and grain-based products	Chia seeds	Chia-Samen	2019	20	nonspecific	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
15	Grains and grain-based products	Chocolate roll, milk roll	Schokobrötchen, Milchbrötchen	2017	15	nonspecific	no seasonality	east		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kg
16	Grains and grain-based products	Chocolate roll, milk roll	Schokobrötchen, Milchbrötchen	2017	15	nonspecific	no seasonality	south		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kç
17	Grains and grain-based products	Chocolate roll, milk roll		2017	15	nonspecific	no seasonality	west		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup		mg/kç
18	Grains and grain-based products	Chocolate roll, milk roll		2017	15	nonspecific	no seasonality	north		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
19	Grains and grain-based products	Cornflakes	Cornflakes	2016	20	nonspecific	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
20	Grains and grain-based products	Cream cake	Creme- und Sahnetorten	2017	20	nonspecific	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
21	Grains and grain-based products	Crispbread	Knäckebrot	2016	20	nonspecific	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
22	Grains and grain-based products	Durum pasta	Teigwaren, eifrei (z. B. Hartweizengrießn	2017	15	organic	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
23	Grains and grain-based products	Durum pasta	Teigwaren, eifrei (z. B. Hartweizengrießn	2017	15	conventional	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
24	Grains and grain-based products	Egg pasta	Teigwaren, mit Hühnerei (z. B. Eiernudelr	2017	15	organic	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
25	Grains and grain-based products	Egg pasta	Teigwaren, mit Hühnerei (z. B. Eiernudelr	2017	15	conventional	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
26	Grains and grain-based products	Fruit cake	Kuchen mit Obst (z. B. Apfelkuchen)	2018	15	nonspecific	no seasonality	east		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
27	Grains and grain-based products	Fruit cake		2018	15	nonspecific	no seasonality	south		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
28	Grains and grain-based products	Fruit cake		2018	15	nonspecific	no seasonality	west		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
29	Grains and grain-based products	Fruit cake	Kuchen mit Obst (z. B. Apfelkuchen)	2018	15	nonspecific	no seasonality	north		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
30	Grains and grain-based products	Gingerbread and gingerbread products	Lebkuchen, Printen, Pfeffernüsse	2016	20	nonspecific	no seasonality	no regionality		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
31	Grains and grain-based products	Lye pretzel, soft	Laugengebäck	2017	15	organic	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
32	Grains and grain-based products	Lye pretzel, soft		2017	15	conventional	no seasonality	east		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
33	Grains and grain-based products	Lye pretzel, soft		2017	15	conventional	no seasonality	south		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
34	Grains and grain-based products	Lye pretzel, soft	Laugengebäck	2017	15	conventional	no seasonality	west		lodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
35	Grains and grain-based products	Lye pretzel, soft		2017	15	conventional	no seasonality	north		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
36	Grains and grain-based products	Millet	Hirse	2019	20	nonspecific	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
37	Grains and grain-based products	Muesli with chocolate	Schoko-Müsli	2017	15	organic	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg
38	Grains and grain-based products	Muesli with chocolate	Schoko-Müsli	2017	15	conventional	no seasonality	no regionality		Iodine (I)	Tellurium (Te)	ICP-MS (Inductively coup	30%	mg/kg



Scientific policy advice through opinions

www.bfr.bund.de/en



DOI https://doi.org/10.17590/20230116-122505

Declining iodine intake in the population: model scenarios to improve iodine intake in children and adolescents

BfR Opinion 026/2022, issued 17 October 2022

lodine is an essential trace element that the body requires in order to produce thyroid hormones. These regulate many metabolic processes, and are responsible among other things for growth, bone formation and organ and brain development in children – even before birth.

lodine must be consumed as part of the normal diet. Since soil iodine concentrations in Germany are low, domestic agricultural products contain very little of it. While saltwater fish and seafood contain a lot of iodine, their low consumption means they are only a minor source of intake. In Germany, the typical natural iodine concentrations in food are not high enough to ensure an adequate intake of iodine for the general population. As a result of a recommendation to use iodised table salt in the food industry, artisanal food retail and private households, iodine intake in the general population in Germany has improved since the mid-1980's. Iodine intake is still suboptimal, however, and is now on a downward trend. Furthermore, the volume of iodised table salt used in processed foods has also declined in recent years. In Germany, manufacturers can themselves decide whether or not to use iodised table salt in their foods. The amount of iodine that is added to the salt is regulated by law. As of this writing, this amount is 15–25 mg per kilogram of salt (mg/kg).



Communication measures – BfR2GO (Magazine)







fit tightly around the neck and were used to hide a

goiter.

BfR2GO 01/2021 ©BfR



Communication measures – Instagram



In order to be well supplied with the trace element, we should consciously choose foods that contain iodine.

However, since our soils contain little iodine, fruit, vegetables and cereals, for example, are low in iodine.

One of the few sources rich in it is iodised table salt.

if salt, then iodised salt



Communication measures - Examples



Press Release:

BfR-MEAL study confirms high standard of food safety in Germany

"Our perception studies show that many people are concerned about their food," says BfR President Professor Dr. Dr. Andreas Hensel.

"However, the results of the MEAL study so far confirm that they are safe."



Developing risk communication at BfR



Media and Social Media

Science



Rather: complex | precise | detailed | neutral | technical | impersonal | not absolute | plural | analytical

Media and Social Media



Rather: short | fast | current | "bad" news | personal | colloquial I quicker spreading of misinformation





After



- Online-PDF
- E-Paper
- - Арр
- Print

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A vegan diet is associated with possible health risks – above all in the case of infants, small children and children, who have high-level requirements for nutrient supply during their growth phase.

Vegan diet - a case for risk communication?

A growing number of people are making the choice to adopt a vegan diet and therefore to refrain from consuming all foods of animal origin. The results of representative surveys conducted in 2014 and 2015 indicate that some 950,000 people in Germany are vegans. Some studies state that a vegan diet has positive effects on overall health; it is said to keep cholesterol levels low and reduce the risk of cardiovascular diseases as well as cancer.

Nevertheless, a vegan diet is associated with possible health risks – above all in the case of infants, small children and children, who have high-level requirements for nutrient supply during their growth phase. One of the main problems with a vegan diet is a lack of vitamin B₁₀, inon, calcium, iodine and zinc as well as long-chain Omega 3 falty acids.

It was in response to the prevailing scientific uncertainty regarding the pros and cors of a vegan diet that the risk perception experts at the BIR decided to address this issue. Target group specific risk communication strategies were developed based on the individual and social influencing factors that play a key role in the motivation to adopt and maintain a vegan diet. To this end, focus group interviews were conducted with a total of 42 vegans in different age groups. This qualitative survey method documented underlying or latent attitudes, values and opinions that only come to the surface if an individual is encouraged to talk about them in a group environment.

> Although the recorded survey data are not representative due to the limited number of cases, they allow some general conclusions based on the, in some cases wery pronounced deviations from the

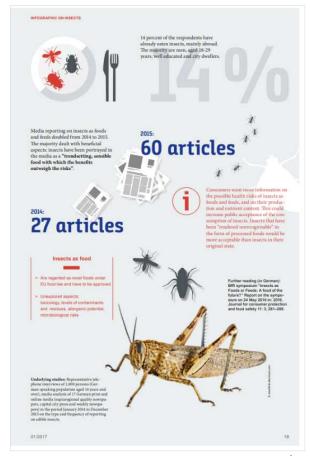
Vegans have above-average educational qualifications and a sound knowledge of nutrition. 40 of the 42 participants in the focus groups were aware that a vegan diet can lead to a deficiency of vitamin B₁₂, and the overwhelming majority of them therefore supplement this vitamin on a regular basis. Two in three of the vegans previously already followed vegetarian diets. This means that vegetarianism promotes the decision to adopt a vegan diet - by virtue of the fact that vegetarians have already fundamentally changed their diet and have the role of a "food outsider". It is generally the case that reporting in the media is a major factor in the decision to switch to a diet free of animal products. For the majority of respondents, films on the inhumane rearing of animals were the most important trigger for the change of diet. The majority of vegans are convinced that humans do not have the right to kill animals or cause them to suffer without necessity. As the production of animal products can entail suffering on the part of the animal, they reject this practice on principle. Human rights such as freedom and inviolability are "transferred" to the animals. The published categorisation of vegans into ethical, health and eco vegans was not confirmed. Health-related motives are rarely mentioned and are generally more of a welcome side effect. This means that it is not possible to determine standardised attitude patterns with regard to the decision in favour of a vegan diet.

Even a pregnancy does not generally cause vegans to (temporarily) consume animal products once again. On the contrary: some participants decided to adopt a vegan diet precisely because they became pregnant. Children are also given a vegan diet.

The findings show that there is a need for risk communication to become active, and that there is a particular need for wide-ranging information about possible nutrient deficiency due to a vegan diet during pregnancy and in the case of infants and small children. Risk communication is always more successful if it picks up on the convictions that alreade wisk in the tarcet croux. Nearly

source: BfR

After



source: BfR





After





Frequently asked questions on Caffeine and Foods Containing Caffeine, including Energy Drinks

BfR FAQ, 23 July 2015

Foods containing caffeine have been consumed by humans for hundreds of years due to their stimulating effect on the cardiovascular and central nervous system. Energy drinks or energy shots are drinks which often contain high concentrations of caffeine. They are frequently advertised as having the ability t enhance the mental alertness and physical performance. The occurrence of possible adverse health effects such as nervousness or cardiac arrhythmias due to the consumption of products containing caffeine depends on individual sensitivity to caffeine and the extent of consumption of foods of this kind.

The BfR already pointed out possible negative health effects of the excessive consumption of energy shots and energy drinks back in 2008 and 2009. The European Food Safety Authority (EFSA) published a scientific opinion on the safety of caffeine in 2015. Due to current inquiries to the BfR, questions are answered below which were put to the Institute in connection with foods containing caffeine, in particular energy drinks.

Detailed informations on caffeine and energy drinks are available on the BfR website: http://www.bfr.bund.de/en/a-z_index/caffeine-129927.html, http://www.bfr.bund.de/en/a-z_index/energy_drinks-130012.html.

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www.bfr.bund.de



Bundesinstitut für Risikobewertung

Microplastic Particles in Food

BfR Opinion No. 013/2015 of 30 April 2015

The term *microplastic* is used for small plastic particles of different origins, sizes and chemical composition. The exact sizes of microplastics have not been uniformly defined in the relevant literature, they mostly range from 0.001 mm to less than 5 mm. Basically, two types of microplastics are distinguished, primary and secondary microplastic. Primary microplastic is specific produced industrially in the form of plastic-based granulates or pellets. Secondary microplastic occurs through chemical and physical ageing and degradation processes in products such as plastic bags and plastic bottles. As far as can be ascertained today, secondary microplastic is the main source of entry into the environment.

Currently, the Federal Institute for Risk Assessment (BfR) does not have any reliable data on the chemical composition, particle size or concentration of microplastic particles in food. Due to a lack of robust data, a health risk assessment of the consumption of food contaminated with microplastic particles is presently not possible. The BfR has requested the European Food Safety Authority (EFSA) for a scientific opinion on the occurrence of microplastic and nanoplastic particles in food, especially in seafood.

The full version of this BfR Opinion is available in German on http://www.bfr.bund.de/cm/343/mikroplastikpartikel-in-lebensmitteln.pdf

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According to the current state of knowledge, it cannot be assumed that the plastic particles in food pose any health risks for humans.

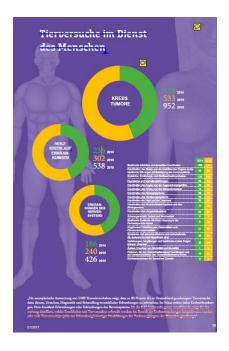
Nevertheless, we need more valid data and scientific studies.

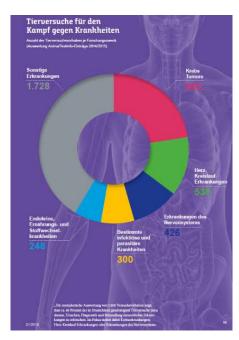


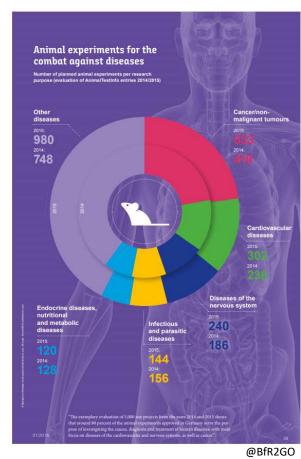
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How to develop new tailored communication tools....





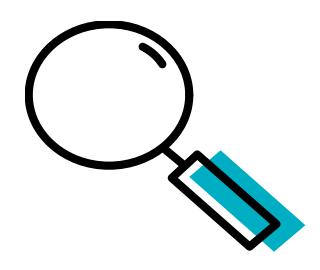


It is a process.



Evaluation

Visits of the BfR website



Stakeholder survey (500 participants):

– More than 75% are satisfied to very satisfied: informative, neutral and independent, understandable, well quotable

Population survey (1000 participants):

 BfR represents an independent scientific institution, Recommendation: even more visible, more information in different languages

Interviews with journalists to optimise public relations (20 participants):

Good accessibility, professional competence, objective, neutral and fact-oriented risk assessment, sometimes very technical terms, recommendation: even faster



SCIENCE: Our strategic approach in press and public relations at the BfR







Scientific knowledge (Risk Assessment)

Context (Perception, Social Media and Media Analysis)

Information (Messages, Target Audience)

Explanation (Language, Visualisation)

Networking (Stakeholders, Dialogue)

Circulation (Dissemination, Channels)

Evaluation (Statistics, Surveys, Feedback)



Thank you

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Jessica Ebelt Irmela Sarvan Tanja Schwerdtle

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BfR | Identifying Risks – Protecting Health

Consumer health protection to go

BfR2GO – the BfR Science Magazine

bfr.bund.de/en/science_magazine_bfr2go.html

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