

# Not on my plate!

**People who buy organic food products or follow a vegetarian diet see the health risks of undesirable substances as being greater than people who buy conventionally produced foods or eat meat.**



**F**oods have already undergone a wide range of production processes before they land on our plate. They have been processed in different companies, packaged, and often transported across large distances. And, despite the many precautionary measures that are taken, foods can also be contaminated. Contaminants are substances that accidentally enter foods during production or transport, for instance heavy metals and dioxins as well as substances like acrylamide which only develop during production or preparation.

**Contaminants assessed as posing risks**

Communication of health risks from undesirable substances in foods is one of the central tasks of the BfR. One precondition for targeted risk communication is the knowledge of the subjective attitude of the population towards contaminants. The BfR therefore conducted a representative study of more than 1,000 people above the age of 14 to determine awareness of contaminants and opinions on the risk they pose. What was clear is that food contaminants are an important topic from the point of view of consumers, and that the associated health risk is often seen as being high. Moreover, just under one in two (49 %) respondents say they consciously avoid foods that are rumoured to have high contaminant levels.

A further focal point of the BfR study is the question of whether there is any connection between eating habits and risk perception. In order to measure any potential relationships between the two, the study compared statements of people who eat or don't eat meat as well as statements by people who preferably buy ecologically grown foods and people who prefer buying conventionally produced foods. The figures show that people who regularly buy organic foods see the health risk of contaminants as being higher than people who mainly buy conventionally produced foods. Equally, people who follow vegetarian diets say food contaminants pose a higher health risk compared to people who eat meat. People who buy organic foods or have vegetarian diets were also more likely than the population overall (67 % and 57 %) to say that they consciously avoid foods containing contaminants.

**Undesirable can mean different things to different people**

From a scientific point of view, contaminants are deemed to be particularly undesirable. However, consumers are often also concerned about authorised ingredients in food. The most frequently cited examples of undesirable substances are flavour enhancers, preservatives or artificial flavourings. Many people take a critical view of these substances, although they do not pose any health risk from a scientific perspective based on the actual amounts consumed. In order to allay unjustified fears, one of the jobs of risk communication is therefore also to explain which substances have been assessed as being safe for the consumers' health.

**Differing awareness of specific contaminants**

The survey on specific contaminants such as dioxin in eggs or milk, arsenic in rice and rice products, acrylamide in chips and toasted bread, benzpyrene in barbecued meat, mercury in fish or pyrrolizidine alkaloids in tea and honey showed that people who buy organic products are more frequently aware of almost all contaminants than people who buy conventionally produced foods. Vegetarians were more frequently aware than omnivores of the contaminants in animal products only. However, these differences in knowledge did not affect assessments of the health risk of these contaminants.

The study showed that vegetarians and buyers of organic foods view the general health risk of contaminants as being higher, but that they assessed the health risk of specific examples of contaminants no differently than people who eat meat or conventionally produced food. Whether it is actually people's eating habits that drive risk perception with regard to contaminants or whether it is the negative attitude towards contaminants that determine why some people decide to adopt a vegetarian or ecological lifestyle are questions that should be addressed by future studies. ■

**More information:**  
Koch et al. 2017. Risikowahrnehmung von Kontaminanten in Lebensmitteln. Bundesgesundheitsblatt 60: 7, 774–782 (Open Access, in German)

**Dietary habits influence risk perception of contaminants**

If contaminants are contained in foods, what level of health risk would you say this poses?

1 = no risk at all  
5 = very high risk

