

Reducing aluminium intake can minimize potential health risks

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In addition, the contributions of the various sources of total aluminum intake by the population were compared with one another. A high intake of aluminum compounds can cause, among other things, neurotoxic

developmental disorders as well as damage the kidneys, liver and bones.

The BfR bases its assessment of the population's aluminum intake from food on the latest consumption and concentration data. Consumption data are collected through consumer surveys and provide information on which foods and how much of them are eaten by different consumer groups. The concentration data used show the average aluminum concentrations in the different food categories. For non-[food products](#), such as cosmetics or packaging, the exposure assessment is also based on data regarding aluminum contents in the products. Furthermore, typical application forms and quantities are taken into account.

For the risk assessment of aluminum intake, the BfR uses the tolerable weekly intake (TWI) derived from the European Food Safety Authority (EFSA) of 1 milligram aluminum per kilogram body weight.

The BfR's assessment shows that aluminum intake from food is lower compared to previous studies. Food is still relevant, but no longer the population's main source of intake. If other relevant sources of aluminum intake are taken into account, such as aluminum containing cosmetic products and uncoated food contact materials, the total intake can exhaust or even exceed the TWI for all age groups.

Consumers can influence their aluminum intake. Those who want to reduce their aluminum intake should use aluminum containing antiperspirants and toothpaste sparingly. When it comes to food, the BfR recommends a varied diet as well as alternating products and brands. This can contribute to reducing the risk of permanently high aluminum intake caused by individual highly contaminated products. The BfR recommends, also for other reasons, exclusively breastfeeding infants in the first six months of life, if possible. The BfR generally advises against the preparation and storage of, in particular, acidic and salty foods in uncoated aluminum articles or aluminum foil. If the aforementioned and

avoidable sources of intake are reduced, most consumers are not expected to suffer any adverse health effects.

The BfR recommends that manufacturers take appropriate measures to reduce the amount of aluminum in food. These may include, for example, using raw materials with low aluminum content or coated materials for processing and packaging [food](#).

There is still a high level of uncertainty in aluminum risk [assessment](#) because important data is still missing or can be interpreted differently. This concerns, for example, the question of how much aluminum is actually absorbed through the skin as well as the possible occurrence of certain long-term consequences of chronic exposure to aluminum.

More information: Reducing aluminium intake can minimise potential health risks. BfR Opinion No. 045/2019 of 18 November 2019 [DOI: 10.17590/20191213-112240 www.bfr.bund.de/cm/349/reducing-al-health-risks.pdf](https://www.bfr.bund.de/cm/349/reducing-aluminium-intake-can-minimise-potential-health-risks.pdf)

Provided by BfR Federal Institute for Risk Assessment

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