

Recommendations for the hygienic preparation of infant formula in powder form

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The hygienic requirements for infant formula are very high. For this reason, infections caused by pathogenic germs are rare. Nevertheless, in exceptional cases, contamination of the baby food may occur, because many types of germs survive the manufacturing process for food in powder form. They can then multiply in the prepared food. In addition, baby food can be contaminated with germs via spoons, teats or baby bottles when the formula is prepared.

Against this background, the Federal Institute for Risk Assessment (BfR) recommends that infant formula in powder form is prepared only shortly before consumption. Preferably, water that has been boiled should be used for preparing infant formula in the first months of a baby's life. To shake the powder, water temperatures of up to 50 °C are sufficient for healthy babies born after a full-term pregnancy. Longer periods of more than two hours from the time the formula is prepared to consumption or during cooling and reheating with storage above 5° C should be avoided at all costs. Any residue of prepared food should be disposed of. Contamination with germs during preparation can be prevented by washing the kitchen utensils used for this purpose in the dishwasher at 65 °C or by thoroughly cleaning them with hot water and detergent.

These recommendations apply to the preparation of infant formula in powder form for healthy babies born after a full-term pregnancy who live in private households, childcare facilities and also in clinics. The BfR believes that in clinics, special milk rooms should, wherever possible, be set up for the production of infant formula in which comprehensive hygienic requirements are implemented. This notably also applies to the infant preparation for prematurely born and immunodeficient babies. In addition, the health situation of such infants requires that individualised nutrition recommendations are made from a medical viewpoint.

The following risk assessment refers to contamination with *Cronobacter* spp. Although *Cronobacter* spp. infections are very rare, they can have serious health consequences such as meningitis. Babies with a birth weight below 2500 g and immunodeficient infants are especially at risk, because their immune system cannot provide sufficient protection against infection. The recommendations resulting from the risk assessment not only apply to preventing infections from *Cronobacter*, but they also provide protection from other germs.

The full version of the BfR Information in German is available on <http://www.bfr.bund.de/cm/343/empfehlungen-zur-hygienischen-zubereitung-von-pulverfoermiger-saeuglingsnahrung.pdf>