

## **Infant food made of soya protein is no substitute for cow milk products**

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Products on the basis of soya protein are sold on the market as an alternative to animal protein. Vegetarians and consumers, who wish to benefit from the health-promoting effects of soya, tend to opt for soya products as do consumers with a cow milk intolerance. However, what is perhaps a good alternative for adults is not necessarily a good one for infants.

Infant formula and follow-up formula based on soya protein are foods for the special nutrition of infants and, in their capacity as dietetic foods, are governed by specific provisions. In contrast, soya drinks are not infant foods but are foods for general consumption. As such they are not specifically tailored to the needs of infants and are not suitable for them. The Federal Institute for Risk Assessment (BfR) comments in this Opinion on the questions of the administration of soya-based infant formula and follow-up formula as a substitute for cow milk based infant formula.

Soya beans naturally contain relatively high concentrations of isoflavones. These plant ingredients have a similar chemical structure to the female hormone oestrogen. In laboratory animals there are signs that a high isoflavone intake has an impact on the development of the reproductive organs, the immune system and the thyroid gland. In humans no oestrogenic effects or adverse effects on the development of the sexual organs or fertility have been identified so far.

The impact of the elevated, long-term intake of isoflavones on infants has not yet been definitively elucidated. For precautionary reasons BfR backs the recommendation of the Nutrition Committee of the German Society of Pediatrics and Adolescent Medicine (DGJK) until further data become available. According to this, infant formula made of soya protein is not a substitute for cow milk products. Infants who are not breastfed or who are not exclusively breastfed should only be given this regularly in substantiated exceptional cases and following a recommendation by a doctor. Soya food is not suitable as a diet for healthy infants.

Medical reasons for giving infants soya-based infant formula are, for example, the rare cases of congenital hereditary lactase deficiency and the equally rare galactosaemia. These are metabolic disorders for which specific enzyme defects are responsible which means that the body cannot utilise lactose or the sugar galactose. If left untreated this leads to diarrhoea, a failure to thrive and developmental disorders. A milk sugar intolerance (lactose intolerance) – whether genetic or because of a temporary acute gastrointestinal disorder – is not as a rule a reason for administering lactose-free, soya-based infant formula. In the case of infants with a cow milk allergy, too, the Nutrition Committee does not recommend soya food for the commencement of treatment. Where appropriate, especially prepared protein hydrolysates can be administered. Soya protein itself can trigger allergic reactions and does not offer protection against the onset of allergic disorders.

The full version of this BfR Opinion is available in German on [http://www.bfr.bund.de/cm/208/saeuglingsnahrung\\_aus\\_sojaeiweiss\\_ist\\_kein\\_ersatz\\_fuer\\_kuhmilchprodukte.pdf](http://www.bfr.bund.de/cm/208/saeuglingsnahrung_aus_sojaeiweiss_ist_kein_ersatz_fuer_kuhmilchprodukte.pdf)