



FACT SHEET

SOY FORMULAS AND SOY DRINKS

*Soy drinks (or soybean drink, soyabean drink) are made by soaking soy beans in water overnight, followed by draining and dehulling, then grinding with water, straining and finally cooking and cooling. Sugar, flavouring and additional nutrients may be added.

* Soy drinks are a popular alternative to cow's milk for vegetarians and for those unable to tolerate cow's milk protein and lactose. They are common beverages in Asian countries.

*Infant soy formulas are available eg Infasoy (Wyeth), Isomil (Abbott), Karicare Soya (Nutricia). Soy Formulas are available as both Starter formulas (from birth) and Follow on Formulas (for infants 6 months and over). Nutrients have been added to ensure the formula meets the infant's special requirements for growth and development. They must comply with the Food Standards Code , Standard 2.9.1 Infant Formula Products.

*Soy formulas do not contain lactose so are suitable for infants with lactose intolerance and galactosemia. The carbohydrate is either sucrose, corn syrup solids or a mix of both.

*The indiscriminate use of soy formulas has been questioned by paediatric gastroenterologists and the Australian College of Paediatrics because:-

- soy protein is at least as allergenic as cow's milk protein so its use for cow's milk protein intolerance is not recommended.
- there is no advantage in using soy formula from birth in feeding infants thought to be at risk of developing allergy.
- after gastroenteritis, introducing another foreign protein to the damaged gut may cause problems. Sucrose may also be less well tolerated.
- soy formula may have side effects. It may impair immunity and there are concerns about its aluminium and phytoestrogen content.

* Soy infant formula contains a higher level of phytoestrogens, (plant compounds with weak hormone like action) than cow's milk or breast milk. While plant phytoestrogens may be beneficial for adults, concern has been raised about their possible effects on infants. Based on animal studies it has been suggested that consumption of soy in early life may affect the infant's growth, hormonal balance, thyroid function, sexual development and fertility which may not show up until adolescence or later. A review by the Australia New Zealand Food Authority (ANZFA), found that despite the absence of long term studies, there was no evidence that exposure of healthy infants to soy based infant formula over some 30 years of use has been associated with any demonstrated harm. It also found no reports in the literature suggesting that Asian populations who ingest high quantities of soy have impaired sexual development or high rates of infertility. However the report concluded that a conservative approach needed to be taken with the use of soy based infant formula , limiting its use to infants for whom other formulas were not suitable.

*A question has also been raised about the aluminium content of soy formulas. While higher than breast milk, infant formulas or cow's milk, there are no reported signs of aluminium toxicity in normal infants fed with these formulas. The amount of aluminium they contain is well below the international level regarded as safe. The Food Standards Code, Standard 2.9.1, has placed a limit on the aluminium content of soy based infant formulas. It must be less than 0.1mg/100ml.

*For children over 12 months, only a fortified soy drink should be used as a replacement for cow's milk. ie one which has added vitamins and minerals to approximate cows milk in composition. (Soy infant formula can be used up to 2 years of age, if preferred). Unfortified soy drink is not an adequate nutritional substitute for cow's milk. Compared to cow's milk it is lower in energy, protein, fat, carbohydrate, calcium, vitamin A, thiamin, riboflavin, and vitamin B12 which are all important nutrients for growing children.



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References.

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