

Contaminants In Infant Formula

You'll never find these listed on the label!!

Mothers are sometimes worried about or have been discouraged from breastfeeding because of concerns regarding toxins found in the body and transferred to the baby through lactation. However, infant formula is full of pollutants that carry a great potential to harm. The infant formula industry would prefer we not know this; indeed, these "ingredients" are not listed on the labels. We can make an informed decision about what we choose to feed our infant with a look at a few of the unlisted and hidden components.

Aluminum, which is present in soybeans and other additives used to make formula, interferes with cellular metabolic processes and information transfer from DNA. Aluminum is found in very high concentrations in soy formula, some of the hypoallergenic formulas, and some of the preterm infant formulas. This is of concern because of the possibility of increased amounts of aluminum being deposited into the brain and the resulting risk of brain dysfunction. Standard formulas can contain up to 40 times the amount of aluminum found in breastmilk.

There are fewer than 5 to 45 ug/l (micrograms per liter) in breastmilk.

However, there are 557 to 2,346 ug/l in soy formula.[1,2,3]

Silicon *The effect of large amounts of silicon on an infant is unknown*

55.45ng/ml in milk of mothers with silicone implants

51.05ng/ml in milk of mothers without implants

746-13,811 ng/ml in 26 brands of formula tested for silicon

Several brands of formula have tested positive for genetically engineered corn and soy. We know today that 55 percent of the US' soy crop and 35 percent of the corn crop is currently genetically engineered. Neocare and Isomil products, Ross Labs' Similac, Carnation's Alsoy product, and Mead Johnson's ProSoBee formula all tested positive for GE ingredients. GE ingredients pose the risk of introducing novel toxins, new allergens, and an increased antibiotic resistance to infants. Because the FDA does not require labeling of GE foods, parents will remain unaware that their baby is consuming transgenic ingredients.

MSG (monosodium glutamate, or processed free glutamic acid and processed free aspartic acid) is a known neurotoxin found in a number of infant formulas. Because the blood brain barrier is not fully developed in infants, these neurotoxins are more accessible to the infant brain than the adult brain. The highest levels of these neurotoxins were found in hypoallergenic formulas. Because no studies have been done on the long-term outcomes of infants fed on hypoallergenic formulas, it's unknown if they will exhibit more learning disabilities at school age, and/or more endocrine disorders such as obesity and reproductive disorders later in life.[5]

Phytoestrogens are endocrine disruptors found in soybeans. Infants fed soy formula have circulating phytoestrogen concentrations that are 13,000 to 22,000 times higher than levels normally found in early life. These bioactive compounds can create steroid hormone imbalance, compete with enzymes that metabolize steroids and drugs, and can affect gonadal (sex organ) function. Soy formula has, for example, been linked to premature thelarche (breast development in infants and girls under eight years of age). Phytoestrogens (isoflavones) also have an effect on the thyroid gland. They're well-known inducers of goiter and antithyroid agents. They act against the thyroid by inhibition of thyroid peroxidase. Children with autoimmune thyroid disease were three times more likely to have been fed soy formula in infancy. [6,7,8]

There are additional health considerations associated with bottle-feeding itself, independent of formula, and having to do with the possibility of leaching from the plastic bottle into the formula, which is then ingested by the baby.

These include **phthalates and bisphenol-A**, industrial chemicals that disrupt the endocrine system. Phthalates, used as plasticisers (plastic softeners) are testicular toxins (capable of disrupting the growth, development, and function of the testes) as well as estradiol imitators (capable of disrupting the hormone system).

Bisphenol-A, used in the production of polycarbonate plastics and also sometimes detected in plastic baby bottles, can leach from the container. Since 1938, it has been identified as an estrogenic inducer (capable of reducing sperm counts in men and increasing the risk of breast cancer in women). Bisphenol-A resins are also used as lacquers to coat metal products such as food cans. Because it has a high affinity for fatty products, **bisphenol-A** has been shown to leach into the content of cans during the autoclaving (heating for sterilization) process, and has thus been found in cans of milk-based infant formula.

Cadmium is a highly toxic metal that can cause kidney damage in high amounts. Neurotoxic effects such as psychomotor disturbances, behavioral and cognitive disorders have been demonstrated in animal models with low-dose exposure. Cadmium levels can be 6 times higher in soy formula compared to milk-based formula. Cadmium is also found in cereals with the exposure of dietary cadmium from weaning diets up to 12 times higher in children fed infant formula compared to breast milk.

Contaminants in water used to reconstitute concentrated and powdered formula

Lead

Lead in water used to reconstitute formula can cause elevations in blood lead levels if used from the hot water tap or boiled. Boiling concentrates lead. There is a 6 point IQ drop for every 10ug increase in blood lead levels.

Nitrates

Infants fed formula reconstituted with nitrate-contaminated water are at risk for potentially fatal methemoglobinemia. Nitrates are converted to nitrites by the baby resulting in hemoglobin being converted to methemoglobin that cannot bind molecular oxygen. This risk increases if babies under six months are also fed baby food with high concentrations of nitrates such as green beans and bananas.

Atrazine

Atrazine is a weed killer that causes mammary and uterine cancer in rats. In the cities and towns with the worst tap water contamination, formula-fed babies who consume reconstituted formula would receive a lifetime dose of this chemical in the first four months of their lives.

Bacteria

Significant bacterial contamination can occur during home preparation of powdered infant formula. Reconstituted formula stored in the refrigerator shows increasing bacterial counts over time.

http://findarticles.com/p/articles/mi_m0838/is_2000_May-June/ai_62141685

<http://www.naba-breastfeeding.org/images/Contaminants.pdf>

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