

Warning: Please Avoid Feeding This to Your Child

Posted By [Dr. Mercola](#) | October 18 2010 | 236,289 views



According to a report in *Science Daily*, a new Canadian study shows that children exposed to high concentrations of manganese in drinking water performed worse on tests of intellectual functioning than children with lower exposures.

The results were published in an article in *Environmental Health Perspectives*.

While manganese is naturally occurring in soil and groundwater around the world, some of Canada's groundwater contains an unusually high amount of it, giving the researchers an opportunity to study whether excessive manganese can adversely affect human health.

"We found significant deficits in the intelligence quotient (IQ) of children exposed to higher concentration of manganese in drinking water," said lead author Maryse Bouchard.

Yet, some areas where lower IQs were reported also registered concentrations below current guidelines. In response to the study, some of the affected municipalities have already decided to install special filtration systems.

Sources:

- » [Science Daily September 23, 2010](#)
- » [Environmental Health Perspectives September 7, 2010; \[Epub ahead of print\]](#)

Dr. Mercola's Comments:

You probably know that manganese is an essential nutrient, but were you aware that when consumed in excess, manganese becomes a potent neurotoxin?

Studies on miners and steelworkers, for example, have shown that excessive exposure to [manganese can cause manganese poisoning, Parkinson's disease, and Wilson's disease](#), for example.

Manganese occurs naturally in soil and can therefore be present in groundwater to a greater or lesser degree. Hence some people who drink well water could be exposed to higher naturally-occurring levels of manganese.

But there is another source of manganese that many people are *completely unaware* of, which may be even more significant than groundwater, and that is *soy infant formula!*

Soy formula is frequently used when a baby is allergic to milk, or if the parents are somehow convinced that soy is a healthier alternative. Unfortunately, nothing could be further from the truth, because soy formula could easily be considered one of the most DANGEROUS food products on the market...

I always recommend breast feeding, if at all possible, but if you can't, *please* educate yourself about the dangers of soy formula!

This is such an important issue because so many mothers end up using formula in lieu of breast feeding or after breast feeding for a short time, not realizing just how bad most formulas are for their baby's health, particularly soy formula.

I've been concerned about this for a long time, and my team has now been working on an infant formula for an entire year. We still have about another year to go, but once we're done we should be able to offer the best commercial infant formula available in the US.

Soy Infant Formula is LOADED with Manganese!

Yes, researchers have found that soybean plants absorb manganese from the soil and *concentrate* it, so that its use in [soy-based infant formula can result in as much as 200 times the level found in natural breast milk!](#)

Such high concentrations can wreak havoc on your baby's immature metabolic systems.

I rarely talk about absolutes but this is one instant where I will say: **NEVER** give your child [soy formula](#). (I guess the only exception would be if there was a catastrophe and soy formula was the only food source temporarily available to keep your baby alive.)

Because just like this latest study confirms, [high concentrations of manganese](#), such as

those found in soy formula, can lead to brain damage in infants and altered behaviors in adolescents.

In the study reported by Science Daily, researchers discovered that [higher concentrations of manganese in groundwater significantly lowered the IQ](#) of the children who drank it, even though the levels were below current guidelines.

A total of 362 children, aged six to 13, living in homes with individual or public wells were examined to test cognition, motor skills and behavior.

[Science Daily reports:](#)

"The average IQ of children whose tap water was in the upper 20% of manganese concentration was 6 points below children whose water contained little or no manganese.

The analyses of the association between manganese in tap water and children's IQ took into account various factors such as family income, maternal intelligence, maternal education, and the presence of other metals in the water.

*... For co-author Donna Mergler, "This is a very marked effect; **few environmental contaminants have shown such a strong correlation with intellectual ability.**"*

The authors state that the amount of manganese present in food showed no relationship to the children's IQ."

For Maximum Health Hazard, Just Add Fluoridated Water...

As if that wasn't bad enough, there are a number of other factors that make soy formula an even more dangerous option.

One of these factors is the fact that [fluoride can increase manganese absorption](#), so if you mix the powdered- or concentrated soy formula with [fluoridated water](#), you're worsening matters even further!

Fluoride and manganese interact in a number of ways through various pathways.

For example, fluorides can cause zinc deficiency which in turn can cause damage to your brain by altering your manganese levels.

This is because fluorides act as a TSH (thyroid-stimulating-hormone) analogue, and along with iodine, zinc and selenium are also controlled by TSH. And when you're [deficient in zinc, the manganese levels in your brain](#) become altered.

Other Health Dangers of Soy Formula

Another significant issue is [the estrogen in soy](#).

A soy-fed baby receives the equivalent of five birth control pills' worth of estrogen every day! These babies' isoflavone levels are typically anywhere between 13,000 to 22,000 times higher than in non-soy fed infants.

Unfermented soy is not a healthy option for anyone, but when you're feeding soy to an infant, you're really setting the stage for a number of health problems.

Dr. Kaayla Daniel, author of [The Whole Soy Story](#), points out thousands of studies linking soy to malnutrition, digestive distress, immune-system breakdown, thyroid dysfunction, cognitive decline, reproductive disorders and infertility—even cancer and heart disease.

For more information about the many ways soy can damage your health – and certainly your baby's, if you're feeding them soy formula – please [review this recent report](#).

It's also worth noting that at least 91 percent of soy grown in the US is also genetically modified (GM), and this too can have serious health effects.

Not only is the soy loaded with toxic pesticide, the plants also contain genes from bacteria that produce a protein that has never been part of the human food supply. Hence, [GM soy has been linked to an increase in allergies](#).

Disturbingly, the *only* published human feeding study on GM foods ever conducted verified that the gene inserted into GM soy transfers into the DNA of our gut bacteria and continues to function. This means that years after you stop eating GM soy, you may still have a potentially allergenic protein continuously being produced in your intestines.

Even more frightening is the potential for [GM soy to cause infertility in future generations](#), which has been evidenced by recent Russian research.

Soy-based formula also typically includes cornstarch, cornstarch hydrolysate (remember, any corn derivatives are also suspect of being GM), tapioca starch, or sucrose instead of lactose.

(Did you know that [many infant formulas actually have MORE sugar than a can of soda](#)? Do you really feel comfortable giving your precious newborn a can of soda for EVERY meal? If not, then it would sure seem best to avoid them ALL like the plague.)

All these things considered, it's truly shocking that soy formula is even allowed on the market.

The Benefits of Breast Feeding, and Healthier Alternatives

One of the best gifts you can give your child is to start out their life with a sound nutritional foundation, and the best way to do this is by breastfeeding. In fact, statistics show a clear correlation between feeding infants artificial formula and [increased infant mortality](#) within the first year.

It's important to realize that there are at least 400 nutrients in breast milk that are NOT found in formula. Of course, the healthier that a new mom eats, [the healthier her breast milk will be](#), too.

While any amount of breastfeeding is better than none at all, it is clearly to your advantage, and best for your baby's health, to [breastfeed exclusively](#) for at least the first 6 months. Then, at the age of 6 or 9 months, you can [begin to supplement with solid foods](#) (while still continuing to breastfeed as well).

What exactly does your baby stand to gain by being breastfed?

- Lower risk of respiratory tract and middle ear infections
- Lower risk of eczema
- Lower risk of obesity
- Added protection against [heart disease](#), diabetes, asthma, and allergies
- [Improved brain function](#) and immune system function

There are benefits to mom, too. The main ones are a reduced risk of chronic diseases like cancer, a faster return to your pre-pregnancy weight, and increased bonding between you and your baby.

There are certain medical conditions that can prevent a woman from breastfeeding, however the majority of women are able to breastfeed successfully. If you need help, contact a lactation consultant in your area for tips and support. You can also visit [La Leche League](#), which is a phenomenal resource for breastfeeding moms.

If for some reason you're not able to breastfeed, or you have adopted a baby, your next best option is to make a [healthy infant formula using raw milk](#). You can find [homemade formula recipes here](#).

As you can see from the chart below, breast milk, and animal milk are far superior to commercially available infant formulas.

Nutrients & Immune Factors	Raw Breast Milk	Raw Cow's Milk	Pasteurized Cow's Milk	Commercial Infant Formula
Anti-microbial enzymes	Active	Active	Inhibited	Unavailable
Biodiverse probiotics	Active	Active	Destroyed	Added
Essential omega-3 & -6 fatty acids	Active	Active	Damaged	Added
Lactase-producing bacteria	Active	Active	Destroyed	Unavailable
Delicate proteins	Active	Active	Destroyed	Altered
B-12 binding protein	Active	Active	Inactive	Inactive
Bioavailable vitamins	Active	Active	Inhibited	Inhibited
Bioavailable calcium	Active	Active	Inhibited	Inhibited
Bioavailable phosphorus	Active	Active	Inhibited	Inhibited
Phosphatase enzyme	Active	Active	Destroyed	Unavailable
Oligosaccharides	Active	Active	Diminished	Unavailable
Lymphocytes	Active	Active	Inactive	Inactive
B-lymphocytes	Active	Active	Inactive	Inactive
Macrophages	Active	Active	Inactive	Inactive
Neutrophils	Active	Active	Inactive	Inactive
IgA/IgG Antibodies	Active	Active	Inactive	Inactive
Bifidus Factors	Active	Active	Inactive	Inactive
Gamma-interferon	Active	Active	Inactive	Inactive
Fibronectin	Active	Active	Inactive	Inactive

As I stated at the beginning of this article, we're also in the process of producing the finest infant formula on the market. I'm hoping to have it available in about a year.

How Can You Protect Your Child from Excessive Manganese Exposure?

First and foremost, do not give your child soy formula or other unfermented soy foods.

As for manganese in your well water, your best bet is to use a high quality filtering system using activated carbon. A well designed activated carbon filter system is the simplest, most convenient, and most user friendly option to purify your drinking water.

A good system will likely consist of multiple filter cartridges; one to protect the carbon from larger contaminants in the water, and another containing carbon designed to remove trihalomethanes – a dangerous disinfection byproduct. Some systems also contain a backup carbon filter to ensure that all contaminants have been filtered out.

For more information about filtering systems and water quality, please see this [previous article](#).

Related Links:

- » [Finally Infant Soy Formula Under Investigation](#)
- » [Experts Dispute JAMA Soy Infant Formula Study](#)
- » [Healthy Alternative to Conventional Infant Formula](#)

From <http://articles.mercola.com/sites/articles/archive/2010/10/18/manganese-can-adversely-affect-childrens-intelligence.aspx>