

EFFECTS OF TOXIC CHEMICALS

Dr. Mercola's Comments:

Endocrine disrupting chemicals are *everywhere* these days. You are exposed to them from a variety of sources, including countless common household products, toys, and personal care products.

Some of these “gender-bender” agents include:

- [Phthalates](#) -- Exposure to phthalates can lead to incomplete testicular descent in fetuses. Phthalates are found in vinyl flooring, detergents, automotive plastics, soap, shampoo, deodorants, fragrances, hair spray, nail polish, plastic bags, food packaging, garden hoses, inflatable toys, blood-storage bags, and intravenous medical tubing.
- [Bisphenol A](#) -- a common ingredient in many plastics, including those in reusable water bottles and resins lining some food cans and dental sealants, can change the course of fetal development in a way that increases your risk of breast cancer.
- [Perfluorooctanoic acid \(PFOA\)](#) -- found in grease- and water-resistant coatings like Teflon and Gore-Tex, is a likely carcinogen.
- [Methoxychlor](#) and [Vinclozin](#)-- An insecticide and a fungicide respectively, have been found to cause changes to male mice born for as many as four subsequent generations after the initial exposure.
- [Nonylphenol ethoxylates \(NPEs\)](#) -- Known to be potent endocrine disrupters, these chemicals affect gene expression by turning on or off certain genes, and interfere with the way your glandular system works. They mimic the female hormone estrogen, and have been implicated as one reason behind some marine species switching from male to female.
- [Bovine growth hormones](#) commonly added to commercial dairy has been implicated as a contributor to premature adolescence.
- [Soy products](#), which are loaded with hormone-like substances.
- [MSG](#) -- A food additive that's been linked to reduced fertility.
- [Fluoride](#) -- This chemical in the U.S. water supply has been linked to lower fertility rates, hormone disruption and low sperm counts.

For more information about the various health hazards inherent with each of these agents, please click on the individual links above.

But, what these various substances all have *in common* is that they can affect your, and of course your children's, endocrine system and reproductive health.

The glands of your endocrine system and the hormones they release influence almost every cell, organ, and function of your body. It is instrumental in regulating mood, growth and development, tissue function, metabolism, as well as sexual function and reproductive processes.

But is it true that males are slowly “disappearing;” morphing into females?

Well, many studies now indicate these toxins may indeed be wreaking silent havoc within our male population. Male infertility is on the rise, and, about 250,000 fewer boys have been born in the last 30 years in the United States and Japan.

Scientists are linking these phenomena to a body accumulation of these types of gender-bending toxins.

Taking a Closer Look at Phthalates

[Phthalates, or “plasticizers,”](#) are a group of industrial chemicals used to make plastics like polyvinyl chloride (PVC) more flexible and resilient. They’re one of the most pervasive of the endocrine disrupters.

Phthalates are found in, among other things:

- Toys
- Food packaging
- Hoses
- Raincoats
- Shower curtains
- Vinyl flooring and wall coverings
- Lubricant and adhesives
- Detergents
- Beauty products like nail polish, hair spray, and shampoo

Although Chem TRUST’s study, “[Effects of Pollutants on the Reproductive Health of Male Vertebrate Wildlife—Males Under Threat](#),” focuses on the ill effects of various endocrine disruptors on wildlife, their disturbing findings are also relevant for humans, because all vertebrates have similar sex hormone receptors.

Therefore, the feminization of other animals, such as polar bears, deer, whales and otters, just to name a few, could very well indicate that a similar pattern is taking place in humans as well.

Their study lists the symptoms found in each of the numerous species tested, which includes testicular cancer, hermaphrodites, genital deformations, low sperm counts, and infertility. And, in fact, numerous studies over the past eight years confirm that similar dangers are posed to human health.

One study found that [pregnant women who are exposed to phthalates](#) gave birth more than one week earlier than women who were not exposed to them.

And, the more a pregnant woman is exposed to high levels of phthalates, the greater the risk her son will have smaller genitals and incomplete testicular descent, leading to impaired reproductive development. The chemical also appears to make the overall genital tracts of boys slightly more feminine.

It is believed that phthalates have these adverse effects because they reduce [testosterone](#) synthesis by interfering with an enzyme needed to produce the male hormone.

This raises yet another worry: What if they also alter other biological processes dependent on this

hormone? *Why wouldn't they?*

Other studies have linked the chemical to thyroid problems in both women and men, and researchers have also suggested a link between phthalates and illnesses like allergies, asthma, and contact dermatitis, all of which are on the rise in children.

How Can You Reduce Your Exposure to Toxic Chemicals?

In July 2008, the U.S. Congress finally passed legislation banning six types of phthalates from children's toys and cosmetics. Legislators in Washington, Vermont and California have also restricted phthalate use in children's goods, and several major retailers, including Wal-Mart, Toys-R-Us, Lego, Evenflo and Gerber claim they will phase out phthalate-laden toys voluntarily.

Yet, so many more products contain endocrine disruptors of varying types; trying to avoid them all can seem like an impossible task.

It's difficult, yes, but there are still a number of practical techniques you can use to [limit your exposure to endocrine disruptors, and other common toxins](#). Here are a few of my recommendations:

- As much as possible, [buy and eat organic produce and free-range, organic foods](#) to reduce your exposure to pesticides and fertilizers.
- Rather than eating conventional or farm-raised fish, which are often heavily contaminated with PCBs and mercury, supplement with a high-quality purified fish or krill oil, or eat fish that is wild-caught and lab tested for purity.
- Avoid artificial food additives of all kinds, including [artificial sweeteners](#) and MSG.
- Avoid processed foods -- remember that they're processed with chemicals!
- Store your food and beverages in glass rather than plastic, and avoid using plastic wrap.
- [Have your tap water tested](#) and, if contaminants are found, install an appropriate water filter on all your faucets (even those in your shower or bath).
- Only use [natural cleaning products](#) in your home.
- Switch over to [natural brands of toiletries](#) such as shampoo, toothpaste, [antiperspirants](#) and cosmetics. The Environmental Working Group has [a great safety guide](#) to help you find personal care products that are free of phthalates and other potentially dangerous chemicals.
- Avoid using artificial air fresheners, dryer sheets, fabric softeners or other synthetic fragrances.
- Throw out your [Teflon pots and pans](#).
- When redoing your home, look for "green," toxin-free alternatives in lieu of regular paint and vinyl floor coverings.
- Replace your vinyl shower curtain with one made of fabric.

Reference website: <http://articles.mercola.com/sites/articles/archive/2009/01/01/males-of-all-species-are-becoming-more-female.aspx>