

Hormone disrupting chemicals in household products

Written by Nicole Netherway

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A 2012 [UN report on hormone disrupting chemicals](#) has uncovered the extent to which 800+ chemicals have infiltrated our homes and raises concerns about their link to breast, prostate, testicular and thyroid cancers, in addition to behavioural disorders in children. There is also a growing movement in the medical industry to educate doctors about these chemicals as evidenced by the recent International Congress of Andrology held in Melbourne (Feb 2013) which highlighted the link between these chemicals in our foods and household products and its impact on male fertility and testicular cancer.

HISTORY

Rachel Carson in her famous book - Silent Spring, demonstrated that the pesticide DDT had accumulated in high levels in predatory birds, most notably ospreys and bald eagles and was responsible for producing thin, non-viable eggs which cracked prematurely. This almost led to the extinction of these species in the United States. Her work led to the development of the US Environmental Protection Agency. Organochlorine pesticides which include DDT, are endocrine disrupting chemicals which are banned under the Stockholm Convention on Persistent Organic Pollutants.

Since the discovery in 1987 by [Ana Soto](#) and Carlos Sonnenschein (1991) that hormone disrupting chemicals were leaching from plastic test tubes causing breast cancer cells to rapidly multiply, the field of endocrine disrupters has gained momentum. This was the first time that scientists became aware of hormone altering chemicals in plastics. Since then there have been a flood of studies on the adverse health effects of plastics – namely PVC, polycarbonate and polystyrene because they contain the hormone altering chemicals DEHP, bisphenol-A (BPA) and nonylphenol respectively. These xeno (foreign) oestrogens adversely affect the reproductive system with mounting evidence to suggest they could be responsible for early puberty and increased rates of testicular and breast cancer. They are also suspected to play a role in [obesity, diabetes](#) and heart disease (Environment California, 2007). Canada was the first country in 2008 to take action on BPA to protect infants and children. In 2010, the US Food and Drug Administration dramatically changed its stance on BPA citing “some concern about the potential effects of BPA on the brain, behavior, and prostate gland in fetuses, infants, and young children” (US Food and Drug Administration, 2010).

Children and pregnant women are particularly vulnerable to the adverse health effects of hormone disrupting chemicals

Since World War 11, tens of thousands of chemicals have been unleashed into our everyday

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products, the majority of which have not been adequately assessed for human safety. Of grave concern is the fact that these hormone disrupting chemicals are ubiquitous throughout our environment – from the lining of most metal food and beverage cans, perfume and any other product that contains a fragrance, as detergents in our cleaning products, in some dental sealants and composites, pesticides and worst of all, in baby bottles. A recent survey conducted by the [Breast Cancer Fund and Choice](#), found BPA in popular canned goods on Australian shelves. Find out more as to how these chemicals are contributing to the [obesity epidemic](#)

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Download: [BPA a dirty word](#) (456 kb pdf)

Where are hormone disrupting chemicals in your home?

- phthalates in [plastics](#) : polystyrene, polycarbonate, PVC
- [fragrances](#) in perfume, air fresheners, cleaning and personal care products
- [fake tan products](#) are loaded with hormone disrupting chemicals
- [bisphenol A](#) (BPA) epoxy resin lining most of our **food tins**.

- [nonstick cookware](#) containing perfluorooctanoic acid
- **Scotchgard applications** - waterproof clothing, microwaveable food items, carpets, mattresses, furnishings...
- **pesticides** - organochlorines (DDT which is still breaking down in our soils), atrazine and organophosphates
- flame retardants used in our **furnishings and building materials**
- polychlorinated biphenyls (PCBs) were used in industrial coolants and lubricants. Despite its ban in 1977, it has been found in most humans tested.

96% of pregnant women tested had BPA in their blood ([Science News, 2011](#))

HEALTH CONCERNS

Endocrine disrupters mimic, block or alter the way in which a hormone in the body is expressed. Unlike other toxins, *endocrine disrupters exert their effect at levels far below what is considered to be harmful.*

It is the timing and duration of exposure and not the dose that determines what impact these chemicals have on the body

. Consequently the authorities way of regulating these chemicals by providing *acceptable limits*

in our food and household products is futile. This is a major concern when you consider that animal studies have indicated that the production of testosterone in an unborn male foetus can be significantly altered at only two weeks of pregnancy - the time when most women don't even

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know they are pregnant!

As a result of their research on phthalates in 2006, the Danish government launched a campaign to warn pregnant women not to use cosmetics and personal care products. There is mounting evidence to suggest that exposure to these chemicals may cause reproductive changes (early puberty, low sperm count, undescended testes, infertility), behavioural problems and various cancers (breast, cervical and prostate cancer). There is mounting evidence to suggest that the introduction of hormone disrupting chemicals in our foods and household products over the past 60 years maybe responsible for the decline in the age of puberty, doubling in the incidence of breast and testicular cancer, infertility, [obesity, diabetes](#) and ADHD ([Breast Cancer and the Environment Research Centre](#)).

SOLUTION

1. Avoid tin food. Buy fresh fruit and vegies (organic when you can), and foods packaged in glass bottles or paper bags (are they available anymore??).
2. Avoid [fragrances](#) in personal care products, cleaning products, air fresheners, after shaves, deodorants and especially perfume!!
3. Avoid storing food and beverages in [plastic](#) (even the safe plastics leach chemicals). Instead store your food in glass, stainless steel, ceramics, pyrex.
4. Avoid the use of conventional [pesticides](#) .
5. Avoid Scotchgard applications.
6. BPA free plastics are not always safe. [Read more.](#) .