

## Toxic Tour Talk

### Our daily life

Here we are in the cathedral of the new religion, shopping!

We come to worship the god of consumerism, at the altars of the shopping mall.

And we worship a lot, as women make most of the shopping choices for the home – on average we spend 18 full days shopping a year, 2.5 hours in the supermarket buying food and another 2.5 hrs are spent just pottering around.

Consumerism drives markets and industry readily responds to give us products which are smaller, lighter, faster, convenient (god forbid anything might not be convenient!), disposable, smellier, and most importantly cheaper. But cheaper only in terms of the purchase price. What are price do we really pay for the products we buy?

And there is a cost! To our planet because of resource use and waste disposal, to our climate because of resulting transport and pollution, include the cost of drilling, mining, chopping, picking, plucking, and shearing for raw materials, and the resulting cost to workers health toiling with non-existent health and safety conditions and for pitiful wages, while living in polluted communities.

There is potential to pollute from cradle to grave, from raw materials extraction through to manufacture of the finished product then the resulting disposal. This drive to fuel the greed for *cheap*, this is leads to contamination without consent resulting in health impacts ranging from reproductive and behavioural problems, to asthma and allergies. This is the cost we are here to talk about today but in particular the cost of breast and other cancers.

We are exposed to a cocktail of chemicals through our air, soil and water, at work, rest and play – there is a **conservative** estimate of 24% of human disease and disorders which are due, at least in part, to environmental factors which include chemicals exposures (including those at work).

(WHO EDC report - [http://www.who.int/ipcs/publications/new\\_issues/endocrine\\_disruptors/en/](http://www.who.int/ipcs/publications/new_issues/endocrine_disruptors/en/))

### **The WHO has linked 28 different cancers to occupational and environmental exposures.**

(Bladder, bone, brain, breast, colon, kidney, laryngeal, leukaemia, liver & biliary, lung, lymph (hodgkin's & non hodgkin's), larynx, mesothelioma multiple myeloma, nasal & nasopharynx, oesophagus, other CNS, ovarian, pancreatic, prostate, rectal, skin, soft tissue sarcoma, stomach testicular, thyroid (Source: Environmental and Occupational Causes of Cancer (New Evidence 2005 - 2007) Richard Clapp. Lowell Centre for Sustainable Production. [www.sustainableproduction.org](http://www.sustainableproduction.org)).

### **IARC**

449 chemicals and substances have been identified as known, probable or suspected carcinogens by the International Agency for Research on Cancer. (Environmental and Occupational Causes of Cancer. A call to act on what we know. Richard Clapp (2007) (IARC - Agents classified by the IARC Monographs, Volumes 1-102. <http://monographs.iarc.fr/ENG/Classification/index.php> [Accessed 1/9/2011])

Many consumers believe - if it's on sale its safe. But we realise now, nothing could be further from the truth.

In the EU there are about 70,000 chemicals in regular commercial use, only about 10% have had proper health and safety testing.

Under REACH which is the EU chemicals legislation and stands for the Registration, Evaluation, and authorisation of chemicals, 30,000 chemicals will be tested prior to 2018.

But it's estimated in the US that over 700 new chemicals are added to the Toxic Substances Control Act per year (which is the US law regulating new or existing chemicals).

You do the maths.

Certain chemicals known as Endocrine Disrupting Chemicals (EDCs) or (hormone disrupting chemicals) interfere with our hormones such as oestrogen or testosterone. Our hormones regulate our endocrine system which is like the bodies messenger system, sending messages to and from cells which control basically everything that is essential to life.

These EDCs may also bio-accumulate in our fat tissue, and the tissues of the animals we eat and be passed down unwittingly to future generations. Top of the food chain is the human child.

Although we have known about certain chemicals ability to mimic hormones for a very long time, we have done little to proactively regulate them and there is insufficient testing on chemicals to determine if they are EDCs before they are released onto the market.

There are 800 chemicals which are known or suspected of interfering with our hormones. (WHO - State of the science of Endocrine Disrupting Chemicals – 2012 <http://www.who.int/ceh/publications/endocrine/en/index.html>)

Some examples of EDCs are phthalates - which are used to carry fragrances in cosmetics and to soften plastics - they are recognised as the 'new car smell'.

These chemicals can be found in a variety of consumer products including clothing.

Clothing:

Around 80 billion garments are produced worldwide, the equivalent of just over 11 garments a year for every person on the planet. (Greenpeace – World water days facts.

<http://www.greenpeace.org/international/en/news/Blogs/makingwaves/world-water-day-10-devastating-facts/blog/44430/>)

Last year Greenpeace tested 141 items of clothing from brands with shops found here in this cathedral of shopping. (Toxic threads: the big fashion stitch up.

<http://www.greenpeace.org/international/Global/international/publications/toxics/Water%202012/ToxicThreads01.pdf>)

They found levels of the hormone disruptor, Nonylphenol, which came from the use of Nonylphenol Ethoxylates (NPE's) during the manufacturing process.

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Some azo dyes are used also in the dying process of fabrics which can later release cancer causing amines, and phthalates were found in the printed images on textiles.

There are hazardous chemicals release through the clothing production line, during manufactured, washing, wearing and finally, disposal.

Other examples of EDCs include chemicals like Bisphenol A which was recently taken out of baby feeding bottles but is still widely used to line tin cans and can be found in tooth fillings and in medical devices such as plastic tubing.

Consider this ability of these toxic chemical to accumulate in places no other man made chemical should be!

- Between 137 – 232 toxic chemicals have been found in the umbilical cord blood from newborns. 132 of these are reported to cause cancer in humans/animals, 110 are toxic to brain or nervous system, 133 cause developmental and repro problems in mammals (humans are also mammals!).
- Chemicals found include BFR's used to make products flame retardant, PCB's which were banned in Canada in 1977, PFCs found in non-stick coatings and organochlorine pesticides.
- All of earth's inhabitants have the right to gestate in a healthy environment free from toxic chemicals. Chemicals that are capable of travelling into the placenta have no place in any product, any workplace or any environment.

(137) *Pre-Polluted: A Report on Toxic Substances in the Umbilical Cord Blood of Canadian Newborns. Pollution in Minority Newborns Environmental Defence.* <http://environmentaldefence.ca/blog/canadian-children-are-being-born-pre-polluted>

(232) *Pollution in Minority Newborns.* Environmental Working Group. <http://www.ewg.org/research/minority-cord-blood-report>. <http://www.ewg.org/research/minority-cord-blood-report/bpa-and-other-cord-blood-pollutants> (US)

- Breast Milk - 300 synthetic chemicals have been discovered in human body tissues and secretions including breast milk. (wecf briefing).

So I say that cancer prevention does not live in this cathedral of consumerism.