

## The Body Toxic

### How the Hazardous Chemistry of Everyday Things Threatens Our Health and Well-being

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- 1972: DDT, an organochlorine pesticide, was banned
- 1976: The Environmental Protection Agency (EPA) establishes the Toxic Substance Control Act (TSCA)
- 62,000 chemicals were grandfathered in as being safe

#### Two chemicals have been banned

- 1978 **Polychlorinated Biphenyls (PCB)**  
[Industrial insulators and precursors to dioxins {carcinogens}]
- 1989 **Asbestos**  
A mineral that is an insulator and flame retardant

#### Three chemicals have been restricted

##### **Dioxin**

"The bi-product of certain industrial processes that is thought to be one of the most toxic chemicals ever made by humans."

##### **Hexavalent Chromium** [Erin Brockovich]

"A dangerous form of the metal used in metal finishing, chromium chemical production, paint pigments, leather tanning, and some wood preservatives."

##### **Chlorofluorocarbons (CFC)**

"Ozone-eating chemicals commonly used as coolants for home and car air conditioners and in the making of fast-food containers."

"There had been no attempt to ban a toxic chemical since 1989."

"Existing chemicals are considered to be safe until proven guilty."

"Manufacturers have no obligation to test for the safety of the substances they sell."

"The EPA lacks the statutory power to request data on a chemical prior to proving it causes harm."

"The amount of chemicals produced or imported by the United States in one day would fill up 623,000 tanker trucks with a capacity of 8,000 gallons each."

### **The Dirtiest Five**

#### **Atrazine**

The most commonly used pesticide in the USA.

Primarily applied on corn.

Also applied to sugarcane, wheat, guava, macadamia nuts, Christmas trees, lawns, golf courses, and cotton.

Causes gonadal abnormalities; hermaphroditism.

Possible human carcinogen.

#### **Phthalates**

Give plastic flexibility.

Found in soaps, shampoos, make-up, nail polish, polyvinyl chloride plastics, lotions, deodorants, fragrances, vinyl flooring, make vinyl soft, plastic bags, food containers, food packaging, inflatable toys, blood storage bags, intravenous medical tubing, shower curtains, air fresheners, most cosmetics.

Male endocrine disruptors, abdominal obesity, insulin resistance.

#### **Bisphenol A (BPA)**

Found in plastic and in the epoxy resin that lines most metal food cans.

Found in some dental sealants and in some #7 plastics.

Found in 100% of household / office dust.

Endocrine disruptors, prostate and breast cancer, urogenital abnormalities in boys, reduced semen quality, early onset female puberty, Type II diabetes, obesity, ADHD and other neurobehavioral problems

#### **Polybrominated Diphenyl Ether (PBDE)**

Flame retardants.

Found in furniture, upholstery, mattresses, carpets, electronics

Cause thyroid hormone disruption, permanent learning and memory impairments, reduce sperm quality, fetal malformations, behavioral changes, hearing deficits.

#### **Perfluorinated Chemicals**

Resist grease, water, stains.

Found in Teflon, Scotchgard, Stainmaster, Gore-Tex.

Found in fast-food and other food wrappers, especially microwave popcorn.

Adversely affects babies, especially birth weight, cause obesity later in life, enlarged livers, thyroid dysfunction, cancers (testicular-liver and pancreatic) and asthma.

## **Organochlorines**

“It would be difficult to find any industry that did not rely on at least one chlorine-containing chemical.”

Organochlorines are a family of compounds produced when chlorine gas reacts with organic (carbon containing) matter.

“Organochlorines resist the natural processes of degradation. Once they are introduced into the environment, Organochlorines take decades to break down.”

**“Organochlorines dominate the list of persistent organic pollutants, which scientists have identified as some of the most toxic substances ever synthesized.”**

“Organochlorine pollutants taint even the most remote regions of the Arctic.”

“Organochlorines are attracted to fatty tissue and magnify up the food chain at higher and higher concentrations by accumulating in the body fat of living organisms.”

Organochlorine pollutants are linked to an array of ill effects in animals and humans:

### **Cancer**

#### **Damage to the Central and Peripheral Nervous Systems**

#### **Reproductive Disorders**

#### **Disruption of the Immune System**

Organochlorines include DDT, PCB's, many pesticides [and Splenda].