



Common Environmental Contaminants Linked to Breast Cancer

by Sat Dharam Kaur ND

The chart below summarizes some of the common environmental contaminants linked with breast cancer, their action, where they are found, and healthier alternatives.

Common Environmental Contaminants
PCBs (Polychlorinated Biphenyls)
<p>Action: lowers immunity; disrupts thyroid and ovarian hormones; may cause breast cancer; related to low birth rate; poor growth; hyperactivity; impaired learning and memory.</p> <p>Source: old paints, varnishes, inks, microscope oil, hydraulic fluids, electrical transformers, PCBs concentrate in fish; fish consumption increases our levels.</p> <p>Alternatives: although production of PCBs has stopped, they still persist in the environment. Avoid fish, meat, and dairy, or choose low fat sources to minimize exposure.</p>
PVC (Polyvinyl Chloride)
<p>Action: disrupts hormones.</p> <p>Source: cars, children’s toys, food containers, credit cards, blinds, raincoats, furniture, building supplies, water pipes, window frames, flooring, exterior siding for homes, wallpaper, blow-up furniture, shower curtains, sterile gloves, medical infusion bags, yoga mats.</p> <p>Alternatives: wood, metal or natural rubber; polyethylene, polypropylene or corn or plant-based products as plastic alternatives; use glass for food containers; use polyethylene for gloves and infusion bags; use natural rubber, hemp or cotton yoga mats.</p>
Bisphenol-A
<p>Action: disrupts thyroid function; lowers progesterone levels; increases breast cancer risk.</p> <p>Source: present in epoxy resins and polycarbonate plastics, including Nalgene water bottles; used to seal cracks in water pipes; present in composite plastic tooth fillings and in dental bonding agents; used to line metal can food containers.</p> <p>Alternatives: avoid canned food and plastic water or juice containers. Store food and water in glass. Use porcelain fillings in your teeth and a bonding agent that does not contain bisphenol-A.</p>
Phthalates (DEHP, DINP, DIDP, DBP, DnOP, DnHP)
<p>Action: toxic to the thyroid (decreases T4); liver and kidney toxicity; harms reproductive tract; causes harm to developing foetus; mimics the hormone estrogen; causes earlier puberty and breast development in girls.</p> <p>Source: added to plastics to make them soft and flexible; found in building products, children’s toys, balls, children’s polymer clay, food packaging; medical devices – tubing, blood bags; infants’ teething rings and pacifiers; vinyl upholstery; tablecloths; raincoats; adhesives; glue, latex adhesives; food containers; garden hoses; shoes and shoe soles; car undercoating; wires and cables; carpet backing; pool liners; solvents for dyes; vinyl tiles; artificial leather; food conveyor belts; traffic cones; canvas tarps; notebook binders; cosmetics, nail polish; dishwasher</p>

baskets; flea collars.

Alternatives: avoid the use of plastic or use only polyethylene or polypropylene plastics or sustainable bioplastic made from corn and other plants. Do not use teething rings and pacifiers with your infants. Purchase or make toys from fabric, wood and metal. Use furniture made from wood and natural cloth fibres. Use cotton tablecloths, rubber garden hoses, and wood-floor coverings. Find cosmetics that are phthalate-free.

Dioxin

Action: blocks testosterone in men; interferes with thyroid function; may contribute to endometriosis and reproductive abnormalities; birth defects; promotes cancer; damage to thymus gland and immune system, urinary tract, liver and bile ducts; can cause severe acne.

Source: released into the air after the incineration of PVC, from hospital incinerators; from magnesium and nickel smelting and steel production; manufacturing of pesticides and herbicides; most human exposure (95%) to dioxin occurs through consumption of beef, fish and dairy; accidental building fires and burning of household waste are a source of dioxin release; dioxin is created during the bleaching of pulp and paper and may be present in tampons; formed during wastewater and drinking water treatment.

Alternatives: use medical supplies, tubing and infusion bags that are PVC-free; do not use PVC in building materials; ban PVC worldwide; do not use chlorine in the bleaching of pulp and paper – use a hydrogen peroxide process instead; use reverse osmosis or ozonation to purify drinking water; eat organic, avoid pesticide use; avoid or minimize consumption of fish, meat and dairy; use alternative to tampons. Trim fat from meat and remove the skin from poultry and fish. If using dairy products, choose low fat.

Furans

Action: carcinogen; toxic to developing foetus; toxic to liver; infertility; suppresses immune system; hormone disruptor; high exposure may cause severe acne.

Source: by-products of plastic production; manufacturing of iron and steel; industrial bleaching and incineration; produced from burning of diesel fuel, fuel used for agricultural purposes, and home heating; produced during generation of electrical power.

Alternatives: ban PVC; use industrial processes that do not produce dioxins and furans – stop incineration; implement regulations to eliminate dioxin and furan release from pulp mills; increase consumption of vegetables, fruits and grains; decrease fish, meat and dairy; avoid burning garbage that may contain wood preservative or plastics; avoid cigarette smoke.

Industrial Solvents

Action: carcinogenic; toxic to the nervous system; headache, drowsiness; nausea; poor coordination; memory loss; confusion; leukemia, anemia, lymphoma, lung cancer, bladder cancer.

Source: includes ethyl benzene, xylene and toluene. Used in small amounts in gasoline, and in industrial solvents.

Alternatives: Develop chemical processes that do not require toxic industrial solvents.

Nonylphenol Ethoxylates

Action: disrupts hormones.

Source: industrial soaps and detergents; natural and synthetic textile processing; plastic manufacturing; pulp and paper making; petroleum refineries; pesticides; oil extraction; added to plastic to make it soft. Found in water bottles, juice containers, food packaging.

Alternatives: ban nonylphenol ethoxylates and use alternative processes; use glass water bottles and juice containers.

Brominated Fire Retardants (PBDEs)

Action: interferes with thyroid hormones; carcinogen; causes behaviour and memory problems; damages central nervous system.

Source: present as a fire retardant in plastic appliances, computers, TVs; present in upholstery foam; mattresses and futons; children's pyjamas; carpets and drapes; added to hard styrene plastics.

Alternatives: Lobby to ban PBDEs. Avoid foam; use wooden blinds or cloth drapes without PBDEs; use wool or cotton carpets; avoid using plastic.

Parabens (Methyl, Propyl, Butyl, and Ethyl Parabens)
<p>Action: Hormone disruptor, mimicking estrogen and linked to breast cancer.</p> <p>Source: used as a preservative in cosmetics, shampoo, and toothpaste (read labels).</p> <p>Alternatives: Cosmetic companies that do not use parabens include Aubrey, Weleda, Dr. Hauschka, AnneMarie Borlind Natural Beauty, Logona, Organic Essentials Skincare, and Sante Kosmetics.</p>
Toxic Metals (Mercury, Cadmium, Lead, Tin, Nickel)
<p>Action: Mimics estrogen, damages cell membranes, decreases white blood cell count, toxic to nervous system, liver, kidneys, damages mitochondria, interferes with cell signalling and cell repair.</p> <p>Source: mercury - fish, dental fillings, coal-fired power plants, pesticides, vaccinations, cosmetics, well water, fertilizers, floor wax, fungicides, thermometers, compact fluorescent light bulbs. cadmium – refined foods, drinking water, shellfish, seafood, liver and kidney meats, electroplating, fertilizers, silver polish, PVC plastic, car exhaust, motor oil. Lead – calcium from bone-meal, soil, brass key rings, canned pet food, lipstick, hair dye, mascara, lead bullets, PVC containers, stained glass, pottery, old paint, car batteries, cable coverings, toothpaste. Tin – canned food, tin foil, jewellery. Nickel – cocoa, nuts, hydrogenated oils, water, tobacco, sewage sludge, dental crowns and bridges, stainless steel manufacturing, car exhaust, car batteries, tires, brakes, baking powder, cigarette smoke, coal powered generators, cooking ware and utensils, fertilizers, batteries</p> <p>Alternatives: porcelain dental fillings, filtered water, use wood or glass or silver, natural cosmetics</p>

For support in reducing risk factors for breast cancer, we invite you to enroll in the Healthy Breast Foundations Program, either online or in person. Upcoming courses are listed here <http://mammalive.net/upcoming-courses/>

You may also schedule a consultation with Sat Dharam Kaur ND satdharamkaur@gmail.com or call 519 372-9212 or contact one of our health practitioners listed here <http://mammalive.net/community/>