

POLYCHLORINATED BIPHENYLS (PCBs)

Introduction: Polychlorinated biphenyls (PCBs) are cancer causing man-made persistent organic pollutants. They are oily liquids or solids, clear to yellow in color, with no smell or taste. PCBs are very stable mixtures that are resistant to extreme temperature and pressure. They remain in the environment for long periods of time and have been the focus of clean-up action at toxic waste sites. There are 209 different possible configurations, or congeners (belonging to the same group) of PCBs. Different congeners sometimes act differently from one another, and some last in the environment and in our bodies longer than others. Some congeners act more like dioxin ("dioxin-like congeners") and others act in other ways ("non-dioxin-like congeners"). For more information please see the Dioxin and Furans factsheet.



Everyone living in developed countries are known to have measurable levels of PCBs in their bodies and have been exposed to PCBs through air and food.

Due to their toxicity, PCBs were banned from the U.S in the 1970s and internationally through the Stockholm Convention on Persistent Organic Pollutants in 2001. Although banned, PCBs are still present in many pre-1979 products.

CHEMICAL *FACTSHEETS*

What it's used for: PCBs were used widely in electrical equipment like capacitors and transformers. They also were used in hydraulic fluids, heat transfer fluids, lubricants, and plasticizers.

Where it's found: They were used as additives in paints, oils, caulking and other materials. PCBs were extensively used as coolants for transformers and capacitors. Even though they were banned considerable amounts of them are still found in old products still in use, those improperly disposed of and in the environment because of bioaccumulation in wildlife.

Health Effects Summary: PCBs are considered carcinogens and studies have shown that in high levels they can affect the endocrine, immune, nervous and reproductive systems.

How we are exposed: PCBs persist in the environment and for that reason they are found in wildlife. Food consumption is the main source of exposure to PCBs; they enter the human body and remain in the body for long periods of time. Air, soil and water also represent a small portion of exposure to PCBs. Because PCBs accumulate higher up the food chain, those who often eat certain predatory fish, wild game and marine mammals are at greater risk of exposure and therefore subject to adverse health effects.

What you can do to reduce exposure: Talk to your community and find out if there are biomonitoring or environmental programs being carried out that assess levels of PCBs in body fluids. If environmental studies have shown or identified toxic sites near your community, are these sources of PCBs? Avoid consuming foods that may have been harvested near contaminated sites.

Keep away from old landfills or dumps since transformers and capacitors containing PCBs may have been discarded in these sites before proper hazardous preventative measures were instituted.