



VERMONT

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF HEALTH

Facts About Polychlorinated Biphenyls (PCBs)

What are PCBs?

PCBs are a group of manmade chemicals. PCBs were widely used in building materials and electrical products in the past. The U.S. Environmental Protection Agency (EPA) banned manufacturing and certain uses of PCBs in 1978. Caulk, paint, glues, plastics, fluorescent lighting ballasts, transformers and capacitors are examples of products that may contain PCBs. Buildings constructed or renovated between 1950 and 1978 may have building materials and electrical products that contain PCBs.

How are people exposed to PCBs?

PCBs continue to be widespread in our soil, air, water and food because of past use and disposal. PCBs break down very slowly and can remain in the environment for a long time. Most people have low levels of PCBs in their bodies because of the widespread presence of PCBs in the environment. In general, however, PCB levels in people have been going down since they were banned.

Food is the main source of PCB exposure for most people. Foods that contribute to PCB exposure include meat, dairy products and fish (especially fish caught in polluted waters). Current health advisories on chemicals in fish can be found at the Health Department's website at:

http://healthvermont.gov/enviro/fish_alert/index.aspx

In recent years, PCBs have been found in some older buildings, including schools in New York City, Massachusetts and Connecticut. Lighting ballasts in older fluorescent lighting fixtures and caulk are the main sources of PCBs in school buildings. Old lighting ballasts may contain PCB oil and, as the ballasts age, the PCB oil can leak onto nearby surfaces or produce vapors in the air. Caulk is a flexible material used to seal gaps to make windows, masonry and joints in buildings and other structures watertight or airtight. PCBs were used as a component of caulk until 1978. As caulk containing PCBs deteriorates, PCBs may be released in the dust or air. Building occupants may be exposed by breathing in PCB-containing dust or vapors, accidental hand to mouth contact, or by skin contact with PCB-containing materials.

What are possible health effects from exposure to PCBs?

The potential for health effects from PCBs, as with other chemicals, depends on how much, how often, and how long someone is exposed.

PCBs have been shown to have adverse effects on the immune, reproductive, nervous and endocrine systems in animal studies. PCBs have also been shown to cause cancer in animals. Studies in humans provide supportive evidence for these health effects.

Short term exposure to large amounts of PCBs (acute effects) can lead to chloracne, decreased liver function, neurological effects, and gastrointestinal effects. These types of acute effects due to high levels of exposure are generally rare. Studies also show that high levels of PCBs in pregnant women can have an impact on their children's birth weight, short-term memory, and learning.

For more information about PCBs and health effects –
contact the Vermont Department of Health at 1-800-439-8550.