

ORGANOCHLORINE PESTICIDES

What are organochlorine pesticides?

Organochlorine pesticides are chlorinated hydrocarbons used extensively from the 1940s through the 1960s in agriculture and mosquito control. Compounds in this group include DDT, methoxychlor, dieldrin, chlordane, toxaphene, mirex, kepone, lindane, and benzene hexachloride. As neurotoxicants, many organochlorine pesticides were banned in the United States, although a few are still registered for use in this country.

How can people be exposed to organochlorine pesticides?

People can be exposed to organochlorine pesticides through accidental inhalation exposure when in an area where they were recently applied. The chemicals can also be ingested in fish, dairy products, and other fatty foods.

Organochlorine pesticides accumulate in the environment. They are very persistent and move long distances in surface runoff or groundwater. Prior to the mid-1970s, organochlorines resulted in widespread reproductive failure among birds because birds laid eggs with thin shells that cracked before hatching.

How can these pesticides affect my health?

Exposure to organochlorine pesticides over a short period may produce convulsions, headache, dizziness, nausea, vomiting, tremors, confusion, muscle weakness, slurred speech, salivation, and sweating. Long-term exposure may damage the liver, kidney, central nervous system, thyroid, and bladder. Many of these pesticides have been linked to elevated rates of liver or kidney cancer in animals. There is some evidence indicating that organochlorine pesticides may also cause cancer in humans.

What should I do if exposed to these pesticides?

If you think you were exposed to these pesticides, contact your doctor.

Is there a medical test to show whether I was exposed to these pesticides?

Organochlorines can be measured in fat, blood, urine, semen, and breast milk. Levels in blood and urine may help show low, moderate, or excessive exposure but tests cannot show the exact amount of chemical to which a person was exposed or predict health effects. Your doctor can tell you where these tests are available.

Resources

Agency for Toxic Substances and Disease Registry (ATSDR). 2018. *Toxicological Profile for Chlordane*. Atlanta, GA: U.S. Department of Health and Human Services.
<https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=354&toxid=62>

Poison Control Center 24/7 Emergency Contact Number: 1-800-222-1222
DPH 24/7 Contact Number: 1-888-295-5156