



ORGANOCHLORINE PESTICIDES

What are ORGANOCHLORINE PESTICIDES?

Organochlorine pesticides are chlorinated hydrocarbons used extensively from the 1940s through the 1960s in agriculture and mosquito control. Representative 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 if you are in an area where they were recently applied. The chemicals can also be ingested in fish, dairy products, and other fatty foods that are contaminated.

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 to organochlorine pesticides 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. Samples of blood and urine are easy to obtain, and levels in these samples may help show low, moderate or excessive exposure. However, the tests cannot show the exact amount of chemical to which a person was exposed, or predict the chance of health effects in this person. Your doctor can tell you where these tests are available.

References and Sources

Centers for Disease Control and Prevention, Fourth National Report on Human Exposure to Environmental Chemicals – <http://www.cdc.gov/exposurereport/pdf/FourthReport.pdf> - Accessed 12/14/09

U.S. E.P.A. Consumer Factsheet on Lindane - <http://www.epa.gov/safewater/dwh/c-soc/lindane.html> - Accessed 12/14/09

ATSDR ToxFAQs – Chlordane - <http://www.atsdr.cdc.gov/tfacts31.html> - Accessed 12/14/09

24/7 Emergency Contact Number: 1-888-295-5156

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