

Aldrin and Dieldrin - ToxFAQs™

What are aldrin and dieldrin?

Aldrin and dieldrin are insecticides (products that kill insects) that are very similar. They are also called pesticides because they kill insects that are pests, such as termites. Pure aldrin and dieldrin are white powders with a mild chemical odor. They are not found naturally in the environment. Aldrin quickly breaks down to dieldrin in the body and also in the environment.



Aldrin and dieldrin were widely used as pesticides for crops like corn, cotton, and citrus fruit from the 1950s until 1970. They were also used to control termites until 1989. These chemicals have not been manufactured or approved for use since 1990.

What happens to aldrin and dieldrin in the environment?

Low levels of aldrin and dieldrin have been measured in soil, sediment, surface water, and groundwater. Sunlight and bacteria change aldrin to dieldrin so that we mostly find dieldrin in the environment.

Aldrin and dieldrin bind tightly to soil and slowly evaporate to the air. Dieldrin in soil and water breaks down very slowly. Plants take in and store aldrin and dieldrin from the soil.

How can I be exposed to aldrin and dieldrin?

Most people are not likely to be exposed to aldrin and dieldrin. The most likely way you could be exposed to small amounts of these chemicals is from eating food (root crops, dairy products, and meat) grown in contaminated soil, drinking contaminated water, or possibly through lactation. Homes treated for termites before 1989 with aldrin or dieldrin may still have low levels of these chemicals in the soil. In these cases, there is a potential for movement from soil into indoor air through cracks and crevices in foundation structure. If you live near a hazardous waste site, you might be exposed to aldrin and dieldrin from contaminated air, dirt, or water.

How can aldrin and dieldrin affect my health?

People who on purpose or accidentally ate large amounts of aldrin or dieldrin have suffered convulsions (spasms), and some died. Workers who were exposed to lower amounts of these chemicals, but for a longer period of time, had headaches, dizziness, irritability, vomiting, and uncontrolled muscle movement. Once they were away from exposure to these chemicals, the workers got better quickly. Because these chemicals can build up in the body, health effects can happen after a longer period of exposure, even to smaller amounts.

In animal studies, animals fed high and low amounts of aldrin or dieldrin had convulsions, tremors, learning problems, liver damage, and reproduction problems. When pregnant animals were fed aldrin or dieldrin, their pups (babies) were less likely to survive. It is not known if these same effects would happen in people. The amount of aldrin or dieldrin that causes these effects in animals is much higher than is expected to be found in the environment.

Most people are not likely to be exposed to aldrin or dieldrin

Aldrin and Dieldrin

Can aldrin and dieldrin cause cancer?

In animals, aldrin and dieldrin have been shown to cause liver cancer when fed to mice.

The [U.S. Department of Health and Human Services \(DHHS\)](#) has not evaluated the carcinogenicity of aldrin or dieldrin.

The [U.S. Environmental Protection Agency \(EPA\)](#) has classified aldrin and dieldrin as *probable human carcinogens* (Group B2).

The [International Agency for Research on Cancer \(IARC\)](#) has categorized dieldrin and aldrin metabolized to dieldrin as *probably carcinogenic to humans* (Group 2A).

Can I get a medical test to check for exposure to aldrin and dieldrin?

Aldrin is quickly changed into dieldrin in the body, so the amount of dieldrin is usually measured. Tests to measure the amount of dieldrin in the blood might help see if someone was exposed.

These tests cannot predict whether you will have health problems from the exposure to aldrin or dieldrin. Doctor's offices do not routinely offer these tests. If you think you have been exposed, call your doctor, nurse, or poison control.

How can I protect myself and my family from aldrin and dieldrin?

Most people don't need to take any special steps to avoid aldrin and dieldrin in their daily lives. People living near sites contaminated with aldrin or dieldrin can reduce their exposure by washing their hands, scrubbing vegetables grown close to the ground, and limiting intake of vegetables grown in contaminated soil. Keep children from playing in the dirt or water near hazardous waste sites to avoid coming in contact with these chemicals.

For more information:

Call **CDC-INFO** at 1-800-232-4636, or submit your question online at <https://wwwn.cdc.gov/dcs/ContactUs/Form>

Go to ATSDR's Toxicological Profile for Aldrin and Dieldrin:

<https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=317&tid=56>

Go to ATSDR's Toxic Substances Portal: <https://wwwn.cdc.gov/TSP/index.aspx>

Find & contact your ATSDR Regional Representative at http://www.atsdr.cdc.gov/DRO/dro_org.html

