



California Environmental Protection Agency

Department of Pesticide Regulation

What to Do in a Pesticide Emergency

Despite what many of us might think, no substance is inherently safe or unsafe. Any substance – even the most innocuous – can be harmful if you are exposed to too much of it. Pesticides are designed to be toxic to the target pest while being safe to the people that use these chemicals. However, accidents and misuse occur and they can cause illness or injury. The potential for a pesticide to cause injury depends upon several factors:

- **Toxicity.** Toxicity is the potential a chemical, such as a pesticide, has for causing harm. Some pesticides have low human toxicity while others are extremely toxic.
- **Dose.** The greater the quantity of a chemical you are exposed to, the greater the risk of injury. The effect of a given dose varies with the weight and age of the person. Therefore, an amount that is relatively harmless to an adult may hurt a small child.
- **Route of absorption.** The ways the body comes in contact with chemicals. Some common routes of exposure are dermal (skin), oral (by mouth), and inhalation (breathing). Swallowing a pesticide usually creates the most serious problem. In practice, however, the most common route of absorption of pesticides is through the skin.
- **Duration of exposure.** The longer a person is exposed, the more chemical their body absorbs.
- **Physical and chemical properties.** Some pesticides evaporate more readily

than others, so they can be more easily inhaled. Some break down quickly on surfaces, others last longer. These qualities affect the potential risk of overexposure.

- **Population at risk.** Persons who run the greatest danger of pesticide illness are those whose exposure is highest, such as workers who mix or apply pesticides. However, consumers who use pesticides in their homes may also be overexposed, especially if they do not follow carefully the instructions on the container label.

Recognizing Pesticide Poisoning. Like other chemicals, pesticides may produce injury externally or internally.

Pesticides can cause contact-associated **skin irritation** or **allergies**. Symptoms of irritation include redness, itching, or pimples. Allergic skin reactions may produce redness, swelling, or blistering. The mucous membranes of the eyes, nose, mouth, and throat are also quite sensitive to chemicals. Stinging and swelling can occur.

Internal injuries may occur depending upon where a chemical is transported in the body or what organ is affected. Shortness of breath, excessive saliva and rapid breathing may occur because of lung injury. Other symptoms to watch for include nausea, vomiting, diarrhea, headache, or dizziness.

First Aid for Pesticide Poisoning. Appropriate first aid treatment depends on which pesticides were used. Here are some tips that may precede but should not substitute for medical advice or treatment:

- **Poison on skin.** Irrigate the area with running water for 10 to 15 minutes. Meantime, call a physician or a poison control center for further treatment advice. Later, discard contaminated clothing or wash it thoroughly, separate from your other laundry.
- **Poison in eye.** Open eyelid and wash the eye slowly and gently with water. Continue eye irrigation for 10 to 15 minutes. Call a physician or a poison control center for further advice.
- **Inhaled poison.** Take the victim to fresh air. If unconscious, give artificial respiration and call for paramedic assistance. Call a physician or a poison control center for further advice.
- **Swallowed poison.** If the person is alert and able to swallow, dilute the ingested substance with sips of milk or water. Call a physician or a poison control center for further treatment advice.

After you have administered first aid, you should get medical help immediately. If someone develops symptoms after using or

being around pesticides, call the "Poison Control Center" listed in your phone book. Ask if the symptoms are pesticide-related and what you should do--being too cautious is better than not. Be sure to have the pesticide container when you call. Medical personnel will ask what the chemical is. Overexposure to certain chemicals causes characteristic symptoms and the doctor needs to know what the chemical is before prescribing treatment. If you are advised to seek treatment at an emergency room or physician's office, you should bring the product label to show your doctor.

To avoid problems, you should minimize your exposure when mixing and applying pesticides by wearing gloves and other protective clothing. Also be careful to follow the label instructions for mixing and application. Safe use depends on that.

Keep this fact sheet handy. Look up the number of your local Poison Control Center now, so you have it nearby. Write it on the front of your phone book or somewhere else close to the phone.

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