



Head Start Staff: What You Need to Know About Pesticide Poisoning

They buzz, they burrow, they crawl, they sting, they bite, they munch, and they torment. From insects to rodents, they can make our lives difficult. Pests, such as ants, cockroaches, mice, rats, and termites, can be particularly troublesome to families if left unchecked. However, many families are unaware of the serious health risks associated with the improper storage or use of household pesticides, the products we use to control or kill pest populations in and around a home.

We encourage Head Start staff to teach families about the possible health effects pesticides can have on young children as well as the simple pesticide poisoning prevention efforts that they can incorporate into their regular household activities. In this way, families are armed with important safety knowledge that lets them make smart choices that effectively protect their children.

One of the simplest and most effective methods of preventing pesticide poisoning is storing household pesticides out of reach of small children in high, locked cabinets.

Pesticides. What are they?

Pesticides are products used in and around the home to control insects (insecticides), termites (termiteicides), rodents (rodenticides), fungi (fungicides), weeds (herbicides), and

microbes (disinfectants). They can be sold in the form of sprays, powders, crystals, or balls. Since most pesticides are specifically created to be poisonous to pest populations, there are many potential risks associated with their improper use.

How do children come in contact with pesticides?

Children can come into contact with pesticides stored or applied in their homes, yards, day-care facilities, schools, parks, or on pets.

Children often touch things (that may be contaminated with a pesticide) and put their hands in their mouths. They also crawl and play on floors, grass, or in spaces that might be contaminated with pesticides. These activities may put them at higher risks for poisoning. Exposure to pesticides may cause serious damage to a child's health.

What are the symptoms of pesticide poisoning?

Pesticide poisoning symptoms may appear similar to the flu. If a child is experiencing any of the following symptoms listed below, contact your Poison Control Center immediately.

IMPORTANT FACTS YOU SHOULD KNOW

- The American Association of Poison Control Centers (AAPCC) data show that more than 50 percent of the two million poisoning incidents each year involve children younger than six years old.
- Each year, poison centers receive thousands of calls from the public with concerns about potential exposure to common household pesticides.
- Over 90 percent of calls to the poison control centers concern poisonings that occur in the home.
- Among households with children under the age of five, close to half stored at least one pesticide product within reach of a child.
- Nearly 75 percent of households with no children under the age of five stored pesticides in an unlocked cabinet within a child's reach—a significant figure since 13 percent of all pesticide poisonings occur in homes other than that of the child.

Play It Safe

Immediate short-term effects include:

- Headaches,
- Dizziness,
- Muscle twitching,
- Weakness,
- Tingling sensations, and
- Nausea.

How can pesticide poisoning affect a child's health?

Pesticide poisoning is especially harmful to children since their brain and nervous systems are at the early, critical stages of development. The effects are not always immediate, and may show up years later as unknown illnesses. Because their bodies are still growing, children have less natural defenses and can develop serious health effects if overexposed to pesticides.

Long-term exposure to pesticides may cause serious health effects such as:

- Birth defects;
- Learning disabilities;
- Behavioral changes;
- Organ damage;
- Forms of cancer, including leukemia, breast cancer, and brain tumors; or
- Asthma symptoms.

Where are pesticides commonly found?

Bathrooms and kitchens are the most likely areas of the home to contain improperly stored pesticides.

Common household pesticides in these areas are:

- Roach sprays and baits;
- Bath and kitchen disinfectants and sanitizers, including bleach;
- Rat and other rodent poisons;
- Insect repellents;
- Products used to kill mold or mildew; and
- Flea and tick shampoos, powders, and dips for pets.

Other household pesticides include:

- Swimming pool chemicals and
- Weed killers.

How can pesticide poisoning be prevented?

Curiosity is a normal stage of a child's developmental process. These explorers are at greater risk for accidental poisoning.

By practicing the following pesticide poisoning prevention guidelines, innocent mistakes don't have to turn into tragedies:

- Always store pesticides away from children's reach, in a locked cabinet.
- Install safety latches on cabinets.
- Read the label first. Follow the directions exactly as they are written on the label.
- Remove children, pets, and their toys before applying pesticides (inside or outside).
- Re-close a pesticide product if ever interrupted during application (e.g., phone call, doorbell, etc.).
- Store pesticides in their original containers since a child can mistake another container for food or drink.
- Use child-resistant packaging correctly by tightly sealing the container after every use.
- Teach children that "pesticides are poisons" and not to be touched.
- Program or post the Poison Control Centers' national hotline number, 1-800-222-1222, in or near your phone.





Pesticides and Their Impact on Children: Key Facts and Talking Points

While pesticides have benefits for society and can be powerful tools for controlling pests, they are also inherently toxic and can severely harm children's health if stored or used improperly.

The following data-driven talking points can be useful when talking with Head Start staff, families and others about the risks associated with pesticides and the importance of pesticide poisoning prevention.

Why are we talking about pesticides?

- 50 percent of the 2 million poisoning incidents each year involve children younger than six years old, and 90 percent of these incidents occur in the home.
- The American Association of Poison Control Centers data reports more than 70,000 calls made to poison centers with concerns about potential exposure to common household pesticides.
- Among households with children under the age of five, close to half stored at least one pesticide product within reach of a child.
- Nearly 75 percent of households with no children under the age of five stored pesticides in an unlocked cabinet within a child's reach — a significant figure since 13 percent of all pesticide poisonings occur in homes other than that of a child.

Why are children especially vulnerable?

Due to key differences in physiology and behavior, children are more susceptible to environmental hazards than adults.

Differences in Physiology

- Children's nervous, immune, digestive and other systems are still developing. Developing systems are less able to detoxify and excrete these pollutants compared to adults.
- Children's systems provide less natural protection than adults.
- Children breathe in more air than adults, inhaling almost 2 times as many pollutants.

Differences in Behavior

- Children spend more time outdoors on grass, playing fields, and play equipment where pesticides may be present.
- Children crawl on the floor and therefore have full body contact with carpets.
- Children's hand-to-mouth contact is more frequent, exposing them to toxins through ingestion.

Did you know?

Decaying cockroaches and mouse dander are among the top triggers in asthmatic children. People with roaches in their homes are 1.5 times more likely to have asthma. People with rodents in their homes are 2 times more likely to have asthma.

Play It Safe

How can pesticide poisoning affect a child's health?

Pesticide poisoning is especially harmful to children since their brain and nervous systems are at early critical stages of development. Because their bodies are still growing, children have fewer natural defenses and can develop serious health effects if overexposed to pesticides. There are two categories of health effects of pesticide exposure. **Acute exposure** refers to an intense exposure over a short period of time; for instance, a child sitting in the room during a spraying. Low-dose and **long-term exposure** is exposure that occurs over a period of time.

Acute exposure to pesticides may cause short-term effects such as:

- Headaches;
- Dizziness;
- Muscle twitching;
- Weakness;
- Tingling Sensations; and
- Nausea.

Long-term exposure to pesticides may cause serious health effects such as:

- Birth defects;
- Learning disabilities;
- Behavioral changes;
- Organ damage;
- Forms of cancer, including leukemia, breast cancer, and brain tumors; or
- Asthma symptoms.

What can we do?

One of the most effective ways you can help prevent pesticide poisonings is by adopting Integrated Pest Management (IPM) practices to reduce children's exposure to pesticides. IPM is a safer method of pest management that makes use of a variety of control techniques and focuses on eliminating the causes of pest infestations instead of merely treating the symptoms. Since children spend so much of their day at home and in school, IPM provides an opportunity to create a safer learning environment—to reduce children's exposure to pesticides as well as eliminate pests. IPM involves the following six steps.

- **Keep Pests Out** — If pests can't get inside, then you won't need to use any pesticides to kill them.
- **Starve and Dry Pests Out** — Every creature needs food and water to survive. Eliminate your pests' access to these things and they won't hang around for long.
- **Eliminate Safe Havens for Pests** — Roaches can live in any nook and cranny. Anywhere you see a small crack leading to a spot that people can't access, make sure to seal it up.
- **Monitor for Pests** — Monitoring is key to successful IPM. It lets us know when there is a problem so we can address it early.
- **Create an IPM Plan and Keep Proper Records** — An IPM plan is a document that indicates how you plan to monitor for pests and what you will do if pests suddenly arrive. Having this tool will help you avoid the urge to use dangerous pesticides.
- **Treat Existing Pest Problems** —To get rid of existing pests, use traps, vacuums, gels and baits. If pesticides are necessary, use spot treatments rather than area-wide applications.

