Healthy Kids Pesticides Information

DEPARTMENT OF HEALTH

Pesticides control a variety of pests such as insects, weeds, and bacteria.

They are used in farming, in and around the home, and many other places. Children can be exposed to pesticides where they live, learn, and play.

The potential health effects of pesticides depend on the specific pesticide. For example, some may harm the nervous system, irritate skin or eyes, or increase cancer risk. Infants and children are more sensitive than adults.

Finding pesticides in a child's urine is common and does not mean your child's health will be affected. Scientists are still learning what levels may be unsafe.

For more information and resources, please visit our webpage:

Healthy Kids MN

health.mn.gov/HealthyKidsChemicals

Where Can Pesticides Be Found?

Pesticides Tested in Your Child's Urine

Pesticides can change into related chemicals once inside the body. We call these "breakdown products." Healthy Kids Minnesota measured for pesticides and breakdown products in your child's urine. These chemicals have long names so we use common abbreviations in your child's results sheet.

For more information on the full chemical names, please visit:
health.mn.gov/HealthyKidsResults

Name	Main Uses	Common Ways Kids Are Exposed
2,4-D	• Controls weeds in farming • Controls weeds in home lawns	Eating food Nearby farming use Playing on treated lawns and grassy fields (school grounds, playgrounds)
Glyphosate **AMPA** Breakdown product of glyphosate	• Controls weeds in farming • Sprayed on driveways, patios, and other outdoor sites for spot-treating weeds • Used in lakes to control aquatic weeds	Eating food Nearby farming use Contact with treated areas of the yard or places where kids play
Organophosphates **IMPY** Breakdown product of diazinon **TCPY** Breakdown product of chlorpyrifos and chlorpyrifos-methyl **MDA** Breakdown product of malathion	• Control insects in farming • Malathion can also be applied to home gardens and fruit trees and sprayed around the exterior perimeter of homes/buildings • Chlorpyrifos is also used in home ant/roach bait stations in tamper-resistant packaging – no other home uses allowed	Eating food Nearby farming use Contact with treated areas of the yard

Name	Main Uses	Common Ways Kids Are Exposed
Pyrethroids **3-PBA** Breakdown product of cyhalothrin, cypermethrin, deltamethrin, fenopropathrin, permethrin, tralomethrin **4-F-3-PBA** Breakdown product of cyfluthrin **trans-DCCA** **cis-DCCA** Breakdown products of cypermethrin, cyfluthrin, permethrin	• Control insects in farming • Control insects in the home and yard/garden • Used on pets in flea and tick products (collars, sprays, spot-on treatments) • Sprayed around exterior perimeter of home • Sprayed in residential areas for adult mosquito control	Eating food Nearby farming use Playing on treated lawns, other areas of the yard, and grassy fields (school grounds, playgrounds) Contact with pets
Neonicotinoids **Dinotefuran** **Acetamiprid** **Thiacloprid** **Clothianidin** Both a breakdown product of the insecticide thiamethoxam and a standalone insecticide **5-OH-IMI** Breakdown product of imidacloprid **6-CNA** Breakdown product of imidacloprid and acetamiprid	• Control insects in farming • *Thiacloprid cannot be used on U.S. crops but may be on imported food* • Control insects in the home • Used on pets in flea and tick products (collars, sprays, spot-on treatments) • Applied to lawns, trees, shrubs, and gardens in home yards and other outdoor sites • Sprayed around exterior perimeter of homes/buildings	Eating food Nearby farming use Drinking water Contact with treated areas inside the home Contact with pets Playing on treated lawns, other areas of the yard, and grassy fields (school grounds, playgrounds)
Sulfoxaflor	• Controls insects in farming	Eating food Nearby farming use
PNP Breakdown product of two organophosphate pesticides (methyl and ethyl parathion) that are no longer used in the U.S. or allowed on food; also has other sources	• Formed in air from fuel combustion • Breakdown product of nitrobenzene, an industrial chemical	Breathing vehicle exhaust Living near roadways with heavy traffic

How You Can Lower Exposure to Pesticides

Pesticides Used in the Home

Applies to: TCPY, 3-PBA, 4-F-3-PBA, trans-DCCA, cis-DCCA, Dinotefuran, Acetamiprid, Thiacloprid, Clothianidin, 5-OH-IMI, 6-CINA

Making your home less welcoming to pests is the best way to avoid using pesticides — like cleaning up food spills quickly, sealing holes and cracks, and fixing plumbing leaks.

If you need to use a pest control product:

- Make sure to identify the pest correctly and that the pest is listed on the label.
- Follow instructions on the product label.
- Choose baits and gels. They are more contained than sprays. Place baits and gels where your child or pet cannot touch them.
- If using a spray, limit use to targeted locations or cracks and crevices. Ventilate your home by opening windows.
- Keep your child, pet, toys, clothes, etc. away from treated area.
- Avoid foggers or bug bombs.
- If the pest problem is severe, consider hiring a certified applicator.
- Always store pesticides in their original containers out of your child's reach.

Pesticides Used on Lawns and Gardens

Applies to: 2,4-D, Glyphosate, MDA, 3-PBA, 4-F-3-PBA, trans-DCCA, cis-DCCA, Dinotefuran, Acetamiprid, Thiacloprid, Clothianidin, 5-OH-IMI, 6-CINA

Following good management practices (like proper siting, watering, and soil) is the best way to minimize pesticide use on lawns and gardens. Consider tolerating some pest activity, like weeds, in your lawn.

If you need to use a pest control product:

- Make sure to identify the pest correctly and that the pest is listed on the label.
- Follow instructions on the product label.
- Make sure children and pets are not nearby while applying and keep them away from the treated area for the time listed on the label.
- For liquid products, choose calm weather so it doesn't drift to other places.
- Take shoes off before entering the house and change clothes after applying.
- Always store pesticides in their original containers out of your child's reach.

How You Can Lower Exposure to Pesticides *(cont.)*

Pesticide Residues on Food

Applies to: 2,4-D | Glyphosate | AMPA | IMPY | TCPY | MDA | 3-PBA | 4-F-3-PBA | trans-DCCA | cis-DCCA | Dinotefuran | Acetamiprid | Thiacloprid | Clothianidin | 5-OH-IMI | 6-CINA | Sulfoxaflor

- Wash fruits and vegetables before eating.
- See our website for guidance on how to minimize your exposure to pesticide residues in food.

Pesticides Used on Pets

Applies to: 3-PBA | 4-F-3-PBA | trans-DCCA | cis-DCCA | Dinotefuran | Acetamiprid | 5-OH-IMI

- Ask your veterinarian to help you select the most appropriate products.
- Follow the label directions and never over-treat your pet.

Pesticides in the Air from Farms and Neighboring Properties

Applies to: 2,4-D | Glyphosate | AMPA | IMPY | TCPY | MDA | 3-PBA | 4-F-3-PBA | trans-DCCA | cis-DCCA | Dinotefuran | Acetamiprid | Clothianidin | 5-OH-IMI | 6-CINA | Sulfoxaflor

Keep your child and pet indoors with windows closed if you know pesticides are being sprayed nearby.

If you think your child came in contact with pesticide drift, follow these steps:

- Handle medical emergencies first and call 911, if needed.
- Call the Minnesota Poison Control System 24/7 at 800-222-1222 or a doctor to determine if they need medical attention.
- Report the incident to Minnesota Department of Agriculture: 651-201-6333. Pesticide drift is against Minnesota law.

How You Can Lower Exposure to Pesticides *(cont.)*

Pesticides in Drinking Water

Applies to: 2,4-D | IMPY | TCPY | Dinotefuran | Acetamiprid | Clothianidin | 5-OH-IMI | 6-CINA

Water from public water systems is already tested for many pesticides.

If you are concerned about pesticides in your private well, consider your well's risk factors:

- Pesticides are more likely to occur in wells located in areas with current or past farming and geologic conditions where pesticides can easily reach groundwater.
- Nitrate levels above 3 milligrams per liter in well water may indicate a higher likelihood of pesticide presence.
- If you are concerned about pesticides in your water, reverse osmosis (RO) devices remove nearly all pesticides when properly maintained.

Pesticide Residues Brought Home from Work

Applies to: 2,4-D | Glyphosate | AMPA | IMPY | TCPY | MDA | 3-PBA | 4-F-3-PBA | trans-DCCA | cis-DCCA | Dinotefuran | Acetamiprid | Clothianidin | 5-OH-IMI | 6-CINA | Sulfoxaflor

- Follow safe work practices and the product label instructions.
- Do not bring pesticide containers or pesticides home from work.
- After work, change your clothes and shoes before entering your home and car. Shower before touching your child.
- Wash work clothes separately from other clothes.

www.health.mn.gov
To obtain this information in a different format, email:
health.biomonitoring@state.mn.us

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For more information and resources, please visit our webpage:
health.mn.gov/healthykidsmn