

Healthy Schools

Getting Hazardous Pesticides Out of Our Schools

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Healthy
Schools
Campaign



Pesticides Threaten Children's Health

Pesticides can have serious impacts on children's health. Considering the amount of time children spend in school, pesticide use at schools poses a particularly severe threat.

Pesticides, including herbicides, insecticides, and other pest-control chemicals, can

cause a variety of short-term (acute) and long-term (chronic) health effects. Possible acute symptoms of exposure include headache, nausea, diarrhea, dizziness, skin rash, and respiratory irritation.¹ Many acute symptoms can appear similar to those of common

illnesses, such as the "flu," resulting in misdiagnosis.

Scientific studies link pesticides to cancer, birth defects, nervous system disorders, reproductive problems, endocrine (hormone) disruption, and immune deficiency. Cancer rates in the United States, including childhood cancer, have increased in the last 30 years, and many scientists and researchers attribute part of the increase to pollution in the environment, including pesticides.² Certain classes of insecticides have known effects on the nervous system, specifically on developing children.³ An increasing amount of evidence shows that certain chemicals, including many pesticides, can mimic or block the action of naturally occurring hormones in the body, resulting in reproductive problems and birth defects in wildlife, as well as declining sperm counts, increasing cancer rates, and birth defects in humans.⁴ Chronic effects can take many years to appear, making it difficult to connect them to past exposures.

Since children's bodies are still developing, they are more susceptible to the risks from

pesticide exposure. Children also have more skin surface and breathe more air than adults relative to their body weight, meaning their exposure to pesticides can be much higher. Contact with floors, lawns, and playgrounds also increase exposure. Children's tendency to put their hands and objects into their mouth dramatically increases the risk of exposure to pesticide residue.

In addition, the tests required for pesticide registration by the federal government have assumed health impacts from pesticide exposure on adult men, not on small children. This means there are significantly fewer studies on the impacts of exposure to children, and that their size and vulnerability to exposure is not taken into full account in pesticide registration.

The Healthy Alternative: Least-Toxic Pest Management

School districts around the country have found that effective pest control is possible without using toxic pesticides. Least-toxic pest management emphasizes non-chemical means of pest prevention and control, replacing pesticides with biological, mechanical, and cultural controls.

Successful pest prevention is the key to reducing or eliminating the use of chemical pesticides. Schools are implementing comprehensive pest-monitoring programs, designing landscapes to be unattractive to pests but still beautiful, and using native plants that are easy to maintain and have natural resistance to common pests. Simple steps such as improving sanitation in classrooms and kitchens, filling cracks in sidewalks, or creating a narrow vegetation-free zone around buildings to prevent pest entry can drastically reduce the need for pest control. Schools are finding that preventing pest problems not only eliminates the use of chemicals, but also can lead to decreased costs for maintenance in the long run.

There is also a growing number of least-toxic products readily available for when pest

We can protect children's health by eliminating the use of pesticides in the areas where they spend much of their time, such as school grounds and buildings.

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control is warranted. Flamers or radiant heat sources can kill weeds growing in parking lots, graveled areas, or sidewalk cracks by boiling the water inside the plant's cells and causing cell walls to break. Products such as corn gluten can be used as a pre-emergent in flower beds to prevent weed seedlings from growing. Weeds in turf and playing fields can be controlled by planting grass

species that flourish in the local environment and by maintaining healthy turf (with practices including aerating, thatching, fertilizing, proper irrigation, mowing, and over-seeding).

A growing number of Washington school districts are implementing least-toxic pest

management programs eliminating or minimizing pesticide use. Successful policies focus on prevention and eliminate the use of pesticides linked to cancer, nervous system harm, reproductive problems, and other serious health issues. Washington districts with strong policies in place include the Sedro-Woolley, Bainbridge Island, Oak Harbor, and Vancouver school districts.

The Children's Pesticide Right-to-Know Act

Washington's new law, the Children's Pesticide Right-to-Know Act, gives parents, teachers, and school staffs information about pesticide use in their schools. The law requires school districts to:

- Notify at least the parents who request it 48 hours before pesticide use.
- Post signs at the application site whenever pesticides are used, indoors or outdoors.
- Post signs in the school's main office 48 hours before any pesticide use.
- Keep records of all pesticide applications, and prepare an annual summary of those records.

While notification alone will not protect

children's health, it provides important information and can be a great tool to advocate for a least-toxic pest-management policy. All parents should contact their principal or superintendent's office to ensure they will be notified of all pesticide applications.

Passing a Policy for your School District

Community involvement is crucial in the development and success of school pesticide-reduction programs. Nearly all of the schools in Washington that have reduced or eliminated the use of pesticides on school grounds have done so because of parent and community pressure. Parents, teachers, students, and community members have come together in communities around the state to work for healthy classrooms and playgrounds. These local groups have worked with grounds and maintenance crews, built public support, obtained coverage in newspapers and on TV, and effectively lobbied school board members. The Washington Toxics Coalition assists local groups in this work through technical, strategic, and organizing assistance.

To help pass a strong policy in your local district, the Washington Toxics Coalition provides information, organizing assistance, and the Healthy Schools Pesticide Action Kit. The kit contains fact sheets, reference tables, and resource lists. For further information about school pesticide use, a copy of the Healthy Schools Pesticide Action Kit, or for assistance in passing a local pesticide-reduction policy, contact the WTC's Angela Storey at 206-632-1545 ext.11 or astorey@watoxics.org.

The Healthy Schools Pesticide Action Kit is also available on our website at www.watoxics.org. ■

References

1. J.R. Reigart, and J.R. Roberts (1999). *Recognition and Management of Pesticide Poisonings* (Washington, D.C.: Environmental Protection Agency).
2. J.L. Daniels, A.F. Olshan, and D.A. Savitz (1997). Pesticides and Childhood Cancers. *Environmental Health Perspectives*. 105(10): 1068-1077.
3. T. Schettler, et al (2000). *In Harm's Way: Toxic Threats to Child Development* (Boston, MA: Greater Boston Physicians for Social Responsibility).
4. T. Colburn, F.S. vom Saal, and A.M. Soto (1993). Developmental Effects of Endocrine-Disrupting Chemicals in Wildlife and Humans, *Environmental Health Perspectives*. 101(5): 378-384.



The grounds of Columbia Elementary School are kept well-maintained and safer for kids without the use of pesticides.