

2005 Earth Share Radio Public Service Announcement  
Script and Sources

*“Heart”*

Place your hand on your heart. Measure the beats. One. Two. Three. Four. Five. That's how long it takes to protect your child's life. Five heartbeats. That's how long it takes to learn about the dangers of pesticides that could be found in your child's classroom.<sup>1</sup> Asthma, lower IQ scores and cancer have all been linked to prolonged exposure to these toxins.<sup>2</sup> But if you knew there were toxin-free alternatives to pesticides. If you knew you had a voice regarding their use. If you knew you could take action that would make your child's classroom safe today, wouldn't you do something?<sup>3</sup>

In a heartbeat.

Log on to [EarthShare.org](http://EarthShare.org) today, and find out how you can help.

A public service message brought to you by Earth Share and the Ad Council.

## “Heart” SOURCES

---

<sup>1</sup> “During any normal school day, children and school personnel can be exposed to hazardous pesticides. Pesticide exposure at school can occur whether applications are made before children enter the building or while they are present. Chemicals fill the air and settle on desks, counters, shades, and walls. Children and staff breathe in contaminated air or touch contaminated surfaces, unknowingly exposing themselves to residues that can remain for days and sometimes break down into other dangerous compounds or contain so-called “inert” ingredients that are not disclosed on the product label but could be highly hazardous. The vulnerability of infants and children to the harmful effects of pesticides has attracted national attention. EPA, the National Academy of Sciences, and the American Public Health Association, among others, have voiced concerns about the danger that pesticides pose to children. Children face higher risks than adults from pesticide exposure due to their small size, tendency to place their hands close to their face, engaging in activities on or near the ground, greater intake of air and food relative to body weight, developing organ systems, and other unique characteristics.”

*“Safer Schools: Achieving a Healthy Learning Environment Through Integrated Pest Management” A Report by the School Pesticide Reform Coalition and Beyond Pesticides. April 2003.*  
<http://www.beyondpesticides.org/schools/publications/IPMSuccessStories.pdf>

<sup>2</sup> “Pesticides are commonly used in schools as well as homes and day care centers to control roaches, rats, termites, ants, and other vermin... little is known about the health effects of these exposures in children. Limited available data do indicate, however, that pesticides are likely to cause harm in humans even at low-level exposures. Two of the most popular classes of insecticides used in the U.S.-organophosphates and carbamates-are designed as neurotoxins, poisoning the nervous systems of unwanted insects. These pesticides also affect the nervous systems of people... Acute poisoning by these insecticides in humans has caused a myriad of short and long-term nervous system disturbances, including agitation, insomnia, muscle weakness, respiratory agitation, nervousness, irritability, forgetfulness, confusion, and depression. There is substantial evidence in animal studies and limited evidence in studies of adult humans that chronic, low-level exposure to organophosphates may also affect neurologic functioning and neurodevelopment in humans. Given this evidence, there is a strong likelihood that low-level chronic exposure adversely affects children's nervous systems, resulting in lower cognitive function, behavior disorders, and other subtle neurological problems. Studies also indicate that exposure to organophosphates disrupts the part of the nervous system that regulates the motor functioning of the lungs. This has lead researchers to hypothesize that pesticides are among the preventable causes of asthma in children. In addition to nervous system disruption, studies have noted links between cancer in children and their exposures to pesticides. Leukemia and brain cancer-the two most common forms of childhood cancer-have increased substantially in incidence since the mid-1970s.”

*“Protecting Children from Pesticide Exposure in Schools.” Mount Sinai School of Medicine Center for Children’s Health and the Environment. June 1, 2002.* <http://www.childenvironment.org/factsheets/pesticides.htm>

“Adverse health effects, such as nausea, dizziness, respiratory problems, headaches, rashes, and mental disorientation, may appear even when a pesticide is applied according to label directions. Pesticide exposure can adversely affect a child’s neurological, respiratory, immune, and endocrine system, even at low levels. A recent study found organophosphate pesticides cause genetic damage linked to neurological disorders such as attention deficit hyperactivity disorder and Parkinson’s disease. Several pesticides, such as pyrethrins and pyrethroids, organophosphates and carbamates, are also known to cause or exacerbate asthma symptoms. Because most of the symptoms of pesticide exposure, from respiratory distress to difficulty in concentration, are common in school children and may also have other causes, pesticide-related illnesses often go unrecognized and unreported. Studies show that children living in households where pesticides are used suffer elevated rates of leukemia, brain cancer, and soft tissue sarcoma.”

*“Safer Schools: Achieving a Healthy Learning Environment Through Integrated Pest Management” A Report by the School Pesticide Reform Coalition and Beyond Pesticides. April 2003.*  
<http://www.beyondpesticides.org/schools/publications/IPMSuccessStories.pdf>

---

“Heart” SOURCES, cont’d

“Although animals are not ‘little people in fur,’ and results from animal tests have to be interpreted carefully, they can be very relevant for humans. Pesticides usually cause toxicity to cells or molecules, and the cells and molecules of humans and animals can be very similar. Thus, if a pesticide affects a cellular or biochemical process in animals, it is likely to do so in humans as well.”

*“About Pesticides. Frequently Asked Questions: Consumers.” U.S. Environmental Protection Agency. April 2005.*  
[http://www.epa.gov/pesticides/about/consumer\\_faq.htm#pesticide\\_safe](http://www.epa.gov/pesticides/about/consumer_faq.htm#pesticide_safe)

<sup>3</sup> “Non-chemical pest prevention is the primary IPM (Integrated Pest Management) strategy. Habitat modification that reduces or eliminates sources of food, water, shelter, and entryways, as well as the maintenance of healthy lawns and landscapes, are key. Schools can prevent pest problems through proper sanitation and housekeeping, pest-proofing waste disposal, structural maintenance, good soil health, and other long-term, non-chemical strategies... The first approach to controlling a pest outbreak should be to improve sanitation, make structural repairs, and use biological, physical, and mechanical controls such as screens, traps, vacuuming, and weeders. If a mixture of non-toxic strategies is shown to be inadequate, a least-hazardous chemical and application method may be used as a last resort... (these chemicals) include products containing boric acid, fatty-acid soap, pheromones, insect growth regulators, and nonvolatile insect and rodent baits in tamper resistant containers or for crack and crevice treatment only. In addition to those, BVSD IPM practitioner has success using basic hand soap, household vinegar, and orange peel extract as his weapons of choice against pest problems. Cass Tech uses nematodes and parasitic wasps. LAUSD also reports using hand soap as well as enzyme-based cleaners for insect management. For weeds, LAUSD uses Bioganic™ weed killers that contain clove oil as the active ingredient. Corn gluten meal was used as a preemergent herbicide at the Carl Sandburg Elementary School, WA and diatomaceous earth was used as an insecticide at the Bainbridge Island School District, WA (BISD).”

*“Safer Schools: Achieving a Healthy Learning Environment Through Integrated Pest Management” A Report by the School Pesticide Reform Coalition and Beyond Pesticides. April 2003.*  
<http://www.beyondpesticides.org/schools/publications/IPMSuccessStories.pdf>