



Pesticides and Asthma

Asthma is a chronic, potentially fatal inflammatory disease of the respiratory system. Nearly one-third of people with asthma are children. Asthma is the number one cause of hospitalization among children, the number one chronic health condition among children, and the leading cause of school absenteeism.¹

- ◆ Children spend an average of 6-7 hours a day, 180 days a year in school.
- ◆ Asthma can be triggered by pesticides. Several types of pesticides are known to cause allergic reactions or airway constriction, including pyrethrins, pyrethroids, organophosphates, and carbamates.²
- ◆ Studies indicate that exposure to organophosphates disrupts the part of the nervous system that regulates the motor functioning of the lungs. This has led researchers to hypothesize that pesticides are among the preventable causes of asthma in children.³
- ◆ Unfortunately, pesticide use in schools is widespread. Four of the five pesticides most commonly used in California's schools have been linked to asthma and other respiratory problems:

Cyfluthrin:	Can cause irritation of the nose, throat, and upper respiratory tract, leading manufacturer Bayer Corp. to state, "persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to exposure." ⁴
Diazinon:	Acute symptoms include wheezing, coughing, and pulmonary edema (fluid in the lungs). ⁵
Glyphosate:	Can cause accumulation of excess fluid in the lungs. Studies show that glyphosate can persist in soils for up to a year. ⁶
Pyrethrins:	Contain allergens that cross-react with ragweed and other pollens. People with asthma can have severe reactions to pyrethrins. ⁷

AB 1006 (Chu) would ban the use of the most highly toxic pesticides in schools, including many pesticides that have been linked to asthma, such as pyrethroids, carbamates, and organophosphates.

Call 888-CPR-4880 or visit www.calhealthyschools.org to get involved.

¹ American Lung Association, <http://www.cleanairchallenge.org/aboutala.html>

² "Effects of Odors on Asthma," Shim, Chang, M.D., Williams, M. Henry, Jr., *The American Journal of Medicine*, Volume 80, January 1986, pp. 18-22

³ Phillip Landrigan, MD, MSc, www.lamontanita.com/docs/newsletterarticles/Aug2000/protectingchildren.htm

⁴ Bayer Corporation, "Cyfluthrin" Material Safety Data Sheet, 2002

⁵ U.S. EPA, *Recognition and Management of Pesticide Poisonings*, 5th ed., EPA 735-R-98-003, 1999, pp 34, 38.

⁶ Cox, "Glyphosate," Part 2: Human Exposure and Ecological Effects, *J. Pesticide Reform*, Winter 1995

⁷ Moses, M., *Designer Poisons*, Pesticide Education Center, San Francisco, CA, 1995