

# Pesticides & Your Health

*The information you need to make educated choices about pesticide use and exposure.*

## What is a pesticide?

According to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), a pesticide is "any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest." This includes weed killers (herbicides), bug killers (insecticides), rodent killers, and antimicrobials (e.g., disinfectants, algicides, and fungicides).

*Many people do not realize that "Weed and Feed" fertilizers contain pesticides.*

Do you know what this sign *really* means?

Pesticides are, by definition, toxic. They are associated with a number of serious health problems in humans and animals, and they also harm the environment. *Those risks do not necessarily end when the warning signs come down.*



A 2005 study by the Environmental Working Group found 21 different pesticides in the umbilical cord blood of infants born in the U.S.

**Of 32 pesticides currently used by a popular commercial lawn care service:**

- 53% contain ingredients that are suspected carcinogens
- 28% contain known or suspected reproductive toxins
- 34% contain known or suspected endocrine disruptors

Source: Toxics Action Center (2005)

**After analyzing data on nationwide pesticide-related illnesses at schools, a group of medical professionals and scientists recommended safer pest control in schools and pesticide-free "buffer zones" around schools.**

Source: Alarcon et al. (2005), Journal of the American Medical Association

## Children are Especially at Risk

Children are especially vulnerable to the dangers of pesticides because of their smaller size, less developed immune systems, more frequent hand-to-mouth contact, and closer proximity to the ground. Scientists believe that even a single exposure to a fetus or child during a critical period of development can cause acute or long-term health problems.

Studies have linked lawn and garden pesticide use with a six-fold increase in the incidence of childhood leukemia and a four-fold increase in the incidence of soft-tissue carcinoma in children.

Sources: Lowengart et al. (1987), Journal of the National Cancer Institute; Leiss & Savitz (1995), American Journal of Public Health



## The Precautionary Principle

*"When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."*

1998 Wingspread Statement (Racine, WI)

## Trade Secrets

While numerous dangers of the active ingredients in pesticides have been documented, little is known about the "inert" ingredients that can make up more than half (sometimes more than 90%) of the ingredients in a given product. Most people assume "inert" means harmless, but these substances are sometimes *more toxic* than the active ingredients.

Source: *The Secret Hazards of Pesticides*, 1996 report from the Office of the Attorney General of New York.

A recent study found that dogs exposed to lawn pesticides were 4 to 7 times more likely to be diagnosed with bladder cancer. Another study found that dogs were twice as likely to be diagnosed with malignant lymphoma in homes where the lawn was regularly treated with 2,4-D, one of the most common lawn pesticides currently in use.

Sources: Glickman et al. (2004), Journal of the American Veterinary Medical Association; Hayes et al. (1991), Journal of the National Cancer Institute.

## Why take the chance?

In 1990, the U.S. General Accounting Office (GAO) reviewed the safety claims made by the lawn pesticide industry and concluded that false and misleading claims of safety were common and violated federal law. The GAO also found that these claims were not adequately regulated, and that of 34 widely used lawn pesticides, 32 had not been adequately reviewed for long-term safety.

Source: United States General Accounting Office (March 1990), *Lawn Pesticides: Risks Remain Uncertain While Prohibited Safety Claims Continue*.