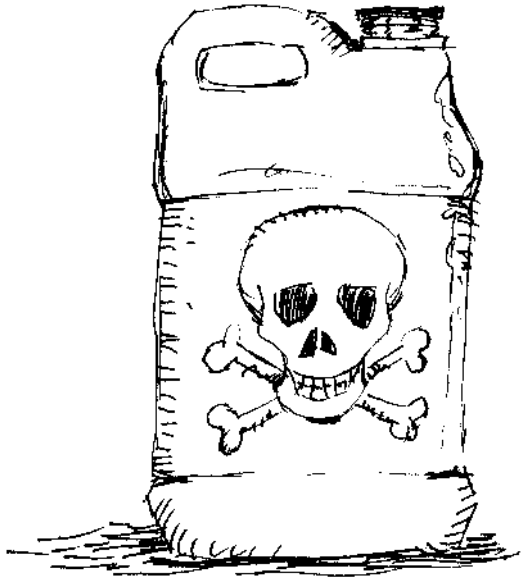


# PESTICIDES

**+** *Your Health*



## *What are Pesticides?*

Pesticides – including insecticides, herbicides and other chemicals targeted at different types of pests - are intended to kill or suppress “pests.” As a result, they often contain toxic chemicals that are strong enough to kill animals or plants. In many cases, these chemicals also have known or suspected impacts on human health.

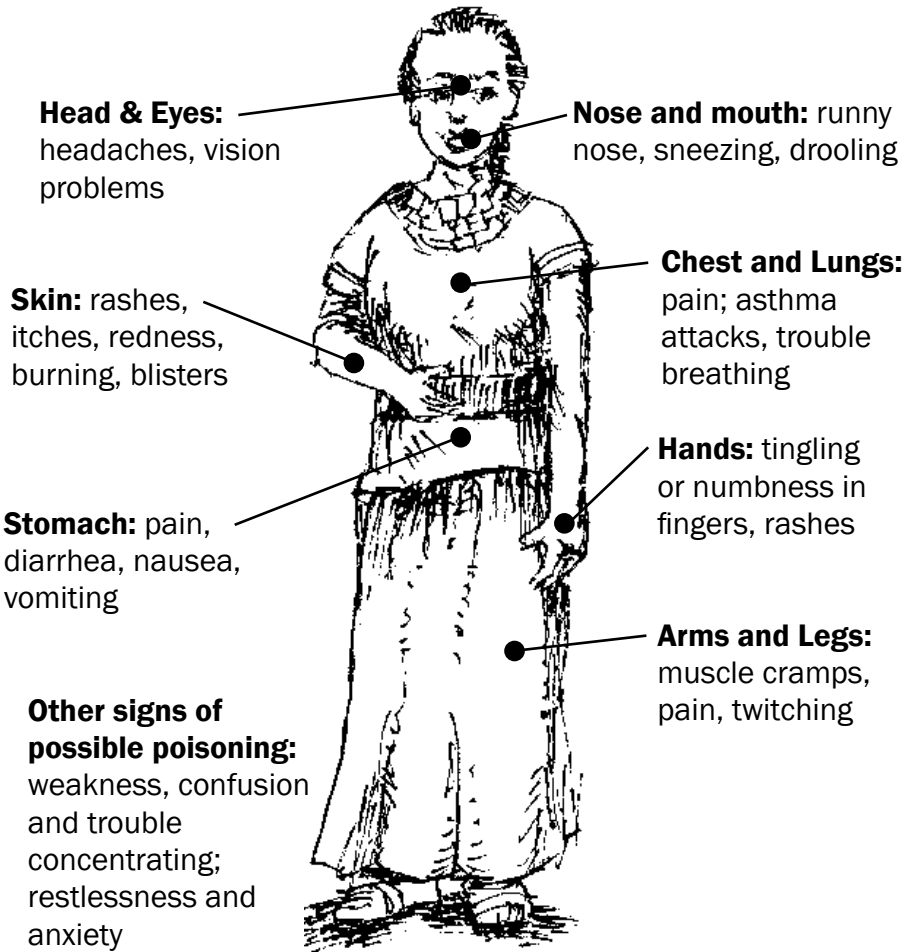
This booklet – *Pesticides and Your Health* – explains how pesticides could affect the health of you and your family. Read it along with either *Pesticides on the Farm* or *Pesticides in Your Home*. *Pesticides on the Farm* describes how farmers and farm workers can protect their health from pesticides. *Pesticides in Your Home* explores what renters, whose landlords are using pesticides, can do to avoid pesticide exposure. These booklets provide both legal information and practical advice on how to avoid exposure to pesticides.

## *A Threat to Your Health?*

Can pesticides harm you? Some certainly can; others almost certainly not. Many pesticides contain chemicals that are known or suspected to cause long-term health problems including cancer, reproductive and nervous system problems and other serious health conditions. There’s a lot that we still don’t know about many pesticides, and what we do know keeps changing: for example, some pesticides that were once thought to be safe are now banned because of their health impacts. In other cases, pesticides that are harmless by themselves sometimes interact with other substances to become harmful. It’s even possible that people with allergies can react to the ingredients of an otherwise harmless commercial pesticide product.

# *Pesticide Poisoning Symptoms*

Some pesticides can cause short-term or “acute” health problems that go away once the pesticide exposure stops. These include mild problems like skin rash or nausea, but extreme cases of pesticide poisoning can result in vomiting, loss of consciousness, or even death. The following is a list of symptoms that are often reported by people suffering from pesticide exposure or poisoning.



Each year, over 6,000 Canadians report being poisoned by pesticides, although experts say that the actual figure is probably much higher.

However, some pesticides can cause more long-lasting or “chronic” problems — especially when a person is exposed to the pesticide repeatedly. In 2004, the *Ontario College of Family Physicians* reviewed all the studies that scientists have done on the health impacts of pesticides. Based on this review, the College:

- “strongly recommended” that people reduce their exposure to pesticides wherever possible, noting consistent links between pesticide exposure and “serious illnesses such as cancer, reproductive problems and neurological diseases among others.”
- concluded that the commonly used pesticides all have health problems associated with them; the scientific literature does not suggest that some of these pesticides are “safer” than others.
- found that pregnant women and children are more likely to be harmed by pesticides.
- recommended that doctors consider pesticides in diagnosing and advising patients about a wide range of health problems.

## *Pregnant Women*

A woman’s body produces special hormones during pregnancy that can be easily disrupted by pesticides. Moreover, babies growing in the mother’s womb can be affected by chemicals. Pesticide exposure during pregnancy has been linked to birth defects and miscarriages.



# Who is most affected?

Everyone should reduce their exposure to pesticides, but certain groups of people are more vulnerable than others. People that fall into one of these categories should try to reduce their exposure to pesticides whenever possible.

## *Children*

Young children are most at risk. They may play in treated areas, and may then put their hands into their mouths. Their small body size, growing body and developing nervous systems all mean that they are more likely to be affected by pesticides. Pesticide exposure in childhood has been linked with behavioural problems, childhood cancers and various other serious health problems.



## *Sick & Elderly*

The human body's immune system helps it deal with chemicals that enter it. The bodies of people who are sick, or who are old, may have more trouble eliminating pesticides from their systems.

## *Environmental Impacts*

Pesticides often have a big impact on the natural world. Because all life is linked together, removing even a single “pest” species can have an environmental impact (affecting its predators and prey and disrupting the way that the ecosystem functions). And most pesticides affect more than just the targeted species. Even if a pesticide doesn’t hurt humans, it may still kill or injure fish, butterflies, bees, other insects, amphibians and birds.

### *Doesn't the Government Protect Me?*

Many people assume that pesticides are safe because the government approves them for use in Canada. The government does ask pesticide companies to do various health and environmental tests before the products are approved for use in Canada. But these tests don’t guarantee safety – more than 50 chemicals used in Canadian pesticides, in over 1,000 pesticide products, have been banned in other countries because of health and environmental impacts.

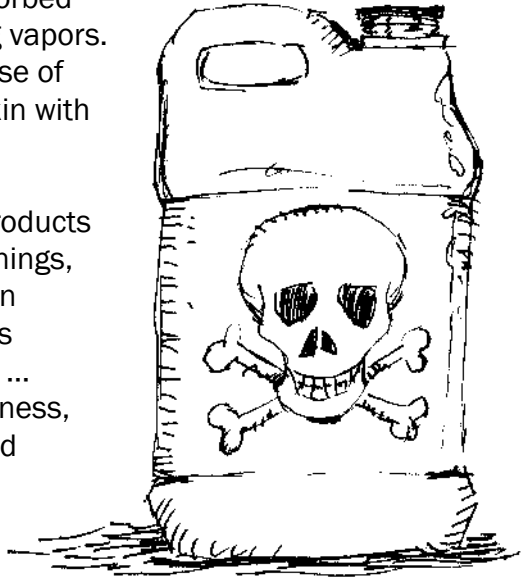
There are two reasons that government testing does not guarantee that pesticides are safe. The first is that the law does not require the Canadian government to certify that a pesticide is safe, but only whether the risks of a pesticide to human health (and the environment) are “acceptable.” Perhaps for this reason, it is illegal for pesticide companies to claim that the government’s approval of a pesticide means that it is safe.

In determining what risks are acceptable, the government does not just consider the safety of a pesticide, but also its purpose, available alternatives, and whether other measures (like safety gear or rules around how the pesticide should be used) can reduce the risks. In some cases, the considerations are purely economical. In 2005, the government banned most uses of the insecticide Azinphos-Methyl due to “risks to workers”. However, farmers can continue to use this pesticide on fruit trees until the end of 2012 because of the difficulty in finding alternatives for that industry.

Each pesticide registered for use in Canada has a government-approved label that indicates how the pesticide should be used. A review of some of these labels quickly removes any impression that these are “safe” products. One common household insecticide warns:

“Harmful if swallowed or absorbed through skin. Avoid breathing vapors. Avoid contact with skin. In case of contact, immediately flush skin with plenty of water...”

Commercial or agricultural products often have more serious warnings, insecticide commonly used on raspberry plants in B.C. warns of “life-threatening poisoning ... signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component.”



The second reason that government testing doesn't ensure that pesticides are safe is the difficulty of testing all the different ways that a pesticide might harm a human being. Long-term or less obvious risks such as cancer, disruption of hormone systems, interference with the nervous system, and reproductive problems are all difficult to test for. The government does assess cancer risks in deciding whether to approve pesticides, but doesn't even try to test for many of the other long-term impacts. These types of problems don't show up until years after exposure, and then it may be impossible to tell if the pesticide caused it.

There have been improvements in how the government evaluates the health impacts of pesticides. However, the risks still exist. The only way to reduce your risk is to reduce your use of, and exposure to, pesticides.

# *General Rules for Reducing Pesticide Exposure*

Almost all of us have some residues from one or more pesticides in our bodies. In a society that uses pesticides widely, it is impossible to avoid all exposure, although the amounts can be reduced by taking some basic precautions.

Two companion booklets (*Pesticides on the Farm* and *Pesticides and Your Home*) give specific advice for farm workers and for tenants who face pesticide exposure. However, the following is some more general advice on protection:

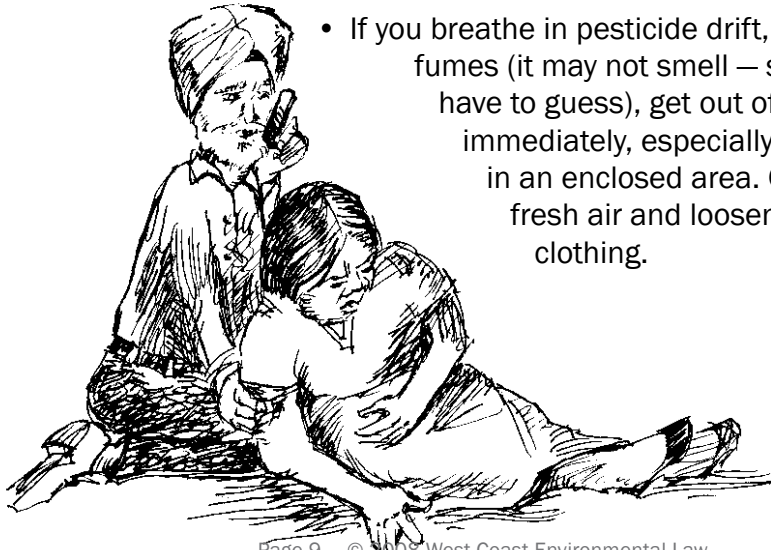
- 1. Don't use pesticides** — Avoid using pesticides in and around your home. There are other choices that don't carry the same health risks. For more information, see <http://www.pesticide.org/factsheets.html#alternatives>.
- 2. Wash food products and buy organic produce** — Much of the pesticides that people are exposed to come from food. If you can, consider buying organic produce. If you don't, wash your produce before eating or cooking with it.
- 3. Ask questions** — If pesticides are being used around you, ask the person applying them what pesticide is being used. Ask for a copy of the pesticide label. Then go to [pesticideinfo.org](http://pesticideinfo.org) to find out what risks it poses.
- 4. Encourage neighbours, schools, local governments and others who use pesticides to stop** — or at least to reduce the amounts of pesticides they use.
- 5. Avoid areas that have been recently treated with pesticides.** Take note of signs indicating that pesticides have been used, and ask about whether pesticides are used in parks or public spaces.
- 6. If you're around pesticides, find out what safety precautions you should be following.** Make sure that pesticides are stored safely and only used in accordance with safety requirements.
- 7. Ask your elected officials to put in place laws that limit the use of pesticides.** All levels of government have a role to play in regulating pesticides.



# *What to Do In Case of Emergency*

People who suffer direct exposure to a pesticide may experience poisoning symptoms. If so, act immediately:

- Phone the Poison Control Centre immediately — at 604-682-5050 in the Lower Mainland or 1-800-567-8911 in the rest of B.C. Tell them what you've been exposed to.
- Read the pesticide label. It will tell you the symptoms of pesticide poisoning and how to deal with poisonings.
- If the label suggests it, or if poison control or a doctor advises it, induce vomiting by drinking a glass of very salty or soapy water. DO NOT induce vomiting unless the label or a medical expert confirms it is safe to do so (some pesticides will burn coming up the throat, causing even more harm).
- If pesticides are spilled on your clothes or skin, immediately remove any affected clothing and wash the pesticides off your skin with soap and cold water. If pesticides get in your eyes, rinse them with clean water for 15 minutes.



- If you breathe in pesticide drift, dust or fumes (it may not smell — so you may have to guess), get out of the area immediately, especially if you are in an enclosed area. Get some fresh air and loosen your clothing.

- If you start experiencing symptoms that may be pesticide related – even if it’s just a rash or sneezing – get away from the source of the pesticides immediately.
- If someone loses consciousness as a result of swallowing or breathing in pesticides, check to see that they are breathing. If they are not, perform mouth-to-mouth breathing using a pocket mask, or a piece of thick cloth or plastic with a hole cut in it, so that you don’t get pesticides in your own mouth. Get medical help as soon as possible.

- In cases of rash and other low level problems, or recurring problems, visit your doctor; bring information about your exposure, including the pesticide label or the name of the pesticide and federal registration number. Even if your doctor only ends up treating the symptoms you’re suffering, ask your doctor to make a note of the pesticide exposure in his or her records. Different doctors have different levels of familiarity with the health impacts of pesticides, and if you are frequently exposed to pesticides through work, you may want to find a doctor who knows about exposure issues.



- Drink plenty of fluids unless the pesticide’s label or the Poison Control Centre says otherwise, and wash any exposed parts of your body;
- Clean up pesticide residues. Remove any exposed clothing (wash it separately from other clothing) and wash, vacuum or mop floors or counters that have been exposed. It is especially important to clean affected eating or food preparation surfaces.

## *Finding Out About a Pesticide*



If you come into contact with a specific pesticide, it is important to find out about that pesticide and what health risks it poses. If you are exposed to pesticides through your work or use around your home, it should be possible to find out about the pesticides. It may be more difficult to find out about pesticide exposure through food, at local schools or parks or through other means.

If you know what pesticide you're dealing with, there are several useful sources of information:

- **Pesticideinfo.org** — The environmental group Pesticide Action Network maintains an on-line database with extensive information about the toxicity of most pesticides. The information is U.S. based and may be slightly different for Canadian-approved pesticides. Another similar resource – not limited to pesticides – is available at: <http://www.scorecard.org>.
- **Pesticide Labels** — Every pesticide that can be legally used in Canada has a label approved by the Canadian Government. The label gives information on the immediate risks of the pesticide, medical treatment for exposure and safety requirements that should be followed when using it. Labels are usually only available in English and French; if you do not read these languages, find someone to help you understand the label requirements. Any pesticide should come with a copy of the label, but they are also available on-line at <http://tinyurl.com/6fjb2b>. If a pesticide user fails to follow the instructions on the label, you can complain to the Pest Management Regulatory Agency (on the record, confidentially or anonymously) at 1-800-267-6315 or [pmra\\_infoserv@hc-sc.gc.ca](mailto:pmra_infoserv@hc-sc.gc.ca).

- **Material Safety Data Sheets** — If you come into contact with pesticides through your work environment, you should be able to obtain a MSDS sheet or equivalent document from your employer. This document is supposed to include any information on the known health risks of the pesticide.

## *For More Information*

These booklets are intended to give both practical suggestions on how to minimize your exposure to pesticides and information about your legal rights to avoid exposure. For more information about how pesticides are regulated, consult West Coast Environmental Law's Citizen's Guide to Pesticide Use and the Law in BC, available for free on-line at <http://www.wcel.org/wcelpub/2007/14256.pdf>.

The information in this booklet is based on information from various sources. An annotated version, with the original sources noted, is available from the West Coast Environmental Law website at <http://wcel.org/pesticides>. This booklet provides information about the current state of the law as of September 2008. It is not legal advice, and if you have a particular legal problem, please contact a lawyer.



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