

Pesticides, household chemicals and you

➤ Choosing the products you buy

- Whenever possible, buy products that are free of pesticides.
- When purchasing products, take a minute to carefully read the label for:
 - **Directions:** Be sure to follow instructions and use the correct amount of a product
 - **Ingredients:** Look for products that appear to disclose all their ingredients.
 - The words **caution, warning** and **danger** indicate that the product's ingredients are harmful. Choose the least hazardous product to do the job.
- Remember, you won't get twice the results by using twice as much.
- Choose pump spray containers instead of aerosols. Pressurized aerosol products often produce a finer mist that is more easily inhaled. Aerosols also put unnecessary volatile organic chemicals into your indoor air when you use them.

➤ Keeping your house clean

- **Remove your shoes when you enter your house.** Your shoes can track in harmful amounts of pesticides, lead, cadmium and other chemicals. Keeping a floor mat at your doors for people to wipe their feet on when they enter will also help.
- **Vacuum carpets and floors regularly.** Children playing on your carpet may actually be more exposed to pesticides lodged in the carpet than from the outside, because pesticides break down less readily indoors than outdoors in the sunlight.
- **Single-ingredient, common household materials** such as baking soda, vinegar, or plant-based soaps and detergents can often do the job on your carpet or other surfaces. Soap and water has been shown to keep surfaces as free of bacteria as antibacterial soaps do.
- Baking soda works well to clean sinks, tubs and toilets, and it freshens drains as well. Vegetable oil with a little lemon juice works wonders on wood furniture.
- Simmer a mixture of cloves and cinnamon or use vinegar and water as a safe and environmentally friendly air freshener. Consider how you can eliminate odor problems rather than just covering them up.
- Use vinegar and water in a pump spray bottle for cleaning mirrors and shining chrome. Vinegar or soap and water with drying rags or a squeegee also work well for cleaning windows.
- Use reusable unbleached cotton towels, rags, and non-scratch scrubbing sponges for all-purpose cleaning instead of bleached disposable paper products.
- Use dishwasher detergents that are free of chlorine bleach and lowest in phosphates. Use bathroom cleaners that are free of aerosol propellants and antibacterial agents.

➤ What you eat

- Choose fruits and vegetables grown organically whenever possible. They have been shown to have less pesticide residue.
- Eat a variety of foods, from a variety of sources. This will give you a better mix of nutrients and reduce your likelihood of exposure to a single pesticide.
- Wash and scrub all fruits and vegetables thoroughly under running water to remove fertilizer residues, bacteria and 'traces of chemicals from the surface and dirt from the crevices.
- Peel fruits and vegetables when possible, discard outer leaves of leafy vegetables. Trim fat from meat and skin from poultry and fish because some pesticide residue collects in fat.
- Don't microwave foods in plastic containers. Chemicals from the plastic container can become absorbed by food during microwaving. Cover with waxed paper or paper towel instead of plastic wrap to keep food from spattering.

➤ Reducing pesticides in the yard

- Use natural pesticides where possible, e.g. garlic, pepper, neem, marigold, and chrysanthemums.
- Ask at your garden store for less-toxic alternatives to chemical pesticides to control pests.
- Apply Integrated Pest Management techniques.
- Consult your County Agricultural Extension Office.

➤ Controlling pests

- In order to survive, pests need food, water and living space. Remove all food sources through good sanitation and storage habits (i.e., screw-cap jars, zip-lock bags, garbage pails with tight-fitting lids).
- Block pest entrances to your kitchen by caulking holes, using door sweeps on the bottom of doors, and installing window screens.
- Avoid placing pesticides around your kitchen to kill indoor insect and rodent pests. Use non-toxic head lice treatments, including combing, enzyme-based treatments and mayonnaise or oil.
- **Avoid mothballs that contain p-dichloro benzene or naphthalene, which are very toxic and also contribute to respiratory problems.** When storing clothing, use cedar blocks or bags of cedar chips hung with your clothes.
- **Consult your veterinarian for non-toxic pest control products for use on pet pests such as fleas and ticks.** Flea and tick shampoos are pesticidal products that kill fleas and ticks on your pet. These products contain a low concentration of insecticide that should control the fleas and ticks without harming your pet if used properly

➤ Storage

- Store product in such a manner as to eliminate access to children and pets. Pets can knock products off shelves. Children can ingest them.
- Store pesticides 1.5 meters off the ground, preferably in a locked and labeled cabinet.
- **Do not put pesticides in soft-drink bottles or other containers**
- Store products in their original containers with labels that list ingredients, directions for use, and treatment in case of accidental poisoning.
- Apply transparent tape over the label to keep it legible.
- **Never store pesticides with food or medical supplies.**
- Keep your pesticide storage area dry and well ventilated.
- Check pesticide containers periodically for leaks, corrosion, breaks, tears, or rust.

➤ Precautions for the use of Household Insecticidal Products

- **When using Mosquito Coils:**
 - do not use coils in the presence of a person with allergies
 - place coils on stand provided by manufacturer
 - take care when lighting coils
 - do not place the coils close to combustible and/or inflammable materials
 - do not store the coils together with food and beverages
 - keep out of the reach of children
 - if a coils breaks, only burn broken segments on an appropriate stand and on a heat resistant surface

- **When using Aerosols:**
 - do not store with food and beverages
 - do not spray on or over, food and beverages
 - do not spray on humans, pets, aquaria, bird-cages and honey bees
 - do not spray on surfaces where food is prepared
 - keep out of the reach of children
 - avoid inhalation of spray mist or direct contact with skin or eyes, if contact occurs, wash the area with plenty soap and water
 - in case of accidental intoxication, patient should contact a physician, hospital or poison information centre for treatment and advice, always have the product label available when seeking treatment or advice
 - the aerosol can must be protected from direct sunlight and temperatures exceeding 50°C
 - do not spray into open fires or onto hot surfaces
 - do not open can forcibly
 - do not smoke while spraying
 - to avoid accumulation of explosive propellant gas, do not spray uninterruptedly into confined small spaces or poorly ventilated rooms
 - make sure the can is completely empty before disposal

- **When using Insect Repellents:**
 - apply repellents only to exposed skin and/or clothing (as directed on the product label)
 - never use repellent over cuts, wounds, or irritated skin
 - do not apply to eyes and mouth, and apply sparingly around ears, when using sprays do not spray directly onto face; spray on hands first and then apply to face
 - do not allow children to handle the products, and do not apply to children's hands, when using on children, apply to your own hands and then put in on the child
 - do not spray in enclosed area, avoid breathing a repellent spray, and do not use it near food
 - use just enough repellent to cover exposed skin and/or clothing, heavy application and saturation is generally unnecessary for effectiveness; if biting insects do not respond to a thin film of repellent, then apply a bit more
 - after returning indoors, wash treated skin with soap and water or bathe, this is particularly important when repellents are used repeatedly in a day or on consecutive days, also, wash treated clothing before wearing it again; if you suspect that your child are reacting to an insect repellent, discontinue use, wash treated skin and then call your local poison control centre, if/when you go to a doctor, take the repellent with you

- **When using Mats/Liquid Vaporizers:**
 - keep out of reach of children and pets
 - do not use in the presence of a person with allergies
 - do not store mats together with food and beverages
 - wash hands after touching the mats
 - do not cover heating device
 - avoid accumulation of dust and dirt on the heater
 - do not wash or clean heater with water
 - wash hands after refilling liquid vaporizers
 - do not open empty or full bottle forcibly
 - after contact with wick or liquid, wash hands
 - use only original refill bottle

- **When using Flea and Tick Shampoos:**
 - Follow label instructions
 - Each time you handle your pet for the first couple of days following the treatment, wash your hands before eating, smoking, or going to the toilet. To keep exposure to an absolute minimum, you may try avoiding contact with your pet for the first few days following treatment.

- **When using Baits:**
 - do not store bait with food, feed-stuffs or beverages
 - the product should not be placed directly onto the ground or in open water
 - the bait should never be taken out of the plastic box of the bait station
 - the bait should be kept away from children and pets
 - do not ingest the bait material
 - if accidental ingestion of the product occurs, patient should contact a physician for treatment. Always have the product name and label available when consulting a physician.

➤ **Physical control measures to complement household insecticides**

Physical methods aiming at the elimination and reduction of disease-carrying insects and nuisance pests' breeding sites and around human habitations, or keeping them away from human dwellings, are important control measures and should be promoted. However, household insecticide products can complement the use of such measures in providing more effective personal protection.

The following are examples of physical control measures, which may be used alone or in combination for the required purpose:

- use of bed nets
- use of wire gauze screening in windows and doors to avoid invasion of flying insects
- avoid accumulation of open water around the house (puddles, open water tanks, damaged water pipes, tires, coconut shells and other natural containers, etc.) in order to avoid breeding areas for mosquitoes
- fill tree holes with concrete
- keep roof gutters clean
- clean and brush water tanks regularly and thoroughly with a wire brush in order to remove eggs and to avoid breeding of mosquito larvae
- avoid the accumulation of organic and decaying materials and garbage in and around the house in order to avoid breeding of flies and other pests
- discard garbage properly
- cover food, feed-stuffs and water tanks
- keep cooking areas clean and organised
- seal cracks and crevices where cockroaches and bugs may breed and rest
- wear long pants and long sleeve shirts to prevent insect bites
- support natural enemies of insect like birds, frogs, lizards and fish.