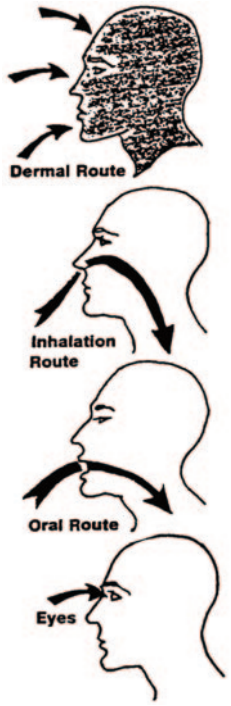
Routes of pesticide exposure

TO EFFECTIVELY GUARD AGAINST PESTICIDE EXPOSURE, we must first realize the risk involved when handling pesticides and how they enter our bodies.



FOUR ROUTES OF ENTRY

- **Dermal**. Studies show that about 97% of all pesticide exposures occur through contact with the skin. This absorption is accomplished by careless handling, while mixing or loading, applying or disposing of pesticides and their containers. The most common of these would be splashes, spills, or drift, while mixing or loading (handling the pesticide in its most concentrated form).

- **Inhalation**. We all know that the lungs oxygenate our blood. So if we inhale a sufficient amount of a pesticide into our lungs, complete and rapid pesticide poisoning will occur when the blood passes through our lungs then out, to travel in the blood stream throughout the entire body. Poisoning by inhalation is not limited by any means. Damage to tissue in the nose, throat, and lungs can also produce long-term health problems and illnesses.

- **Oral**. More often than not, children are victim of this type of exposure, greatly due to a careless applicator or even a parent who has removed a pesticide from its original container and put it into an unmarked bottle or other storage container. However, for our purposes, one must realize that oral exposure can occur with a simple lick of the lips, smoking, chewing (tobacco or gum), eating or drinking, while handling pesticides.

- **Eyes**. The eye though very small can absorb enough pesticide to be significantly hazardous. Poisoning here is most generally accomplished through the rubbing of one's eyes with contaminated hands. Spills, splashes and drift are also methods of entry to guard against.

TOXICITY (LD50, LC50)

What do we need to know about these two numbers? Simply put, the higher the LD50 or LC50 number, the lower the incidence of poisoning has occurred in laboratory testing of that pesticide. On the other hand, the lower that number, the greater the incidence of poisoning has occurred in lab testing, and those pesticides will generally carry a signal word of "Danger." Signal words are derived from LD (lethal dose) or LC (lethal concentrate) numbers, so if you can't find one of these numbers on the label, or MSDS, follow the signal word precautions.
For personal safety, always wear protective gear and always wash up immediately following contact with any pesticide.

Personal protective equipment

YOU NEED TO DECIDE! Read the label. The formulation, signal word, precautionary statements, personal protective equipment statements, the application method, and the projected length of exposure indicate the personal protective equipment you need.

MINIMUM EXPOSURE

- (Such as granular applications and many other routine pesticide activities.)
- Protective suit (such as fabric coveralls) worn over normal work clothes.
- Chemical-resistant gloves such as rubber, vinyl, or plastic (never use fabric, leather, or paper gloves).
- Socks and shoes or boots

MAXIMUM EXPOSURE

- (Such as direct contact with drenching spray, mist blower or knapsack applications, or handling very highly toxic pesticides.)
- Chemical-resistant hood or hat
- Goggles or face shield
- Respirator (if the label requires it or if dusts, mists, fogs, or vapors will be generated).
- Chemical-resistant protective suit worn over normal work clothes.
- (A chemical-resistant protective suit may cause heat stress under some conditions.)
- Chemical-resistant gloves such as rubber, vinyl, or plastic (never use fabric, leather, or paper gloves).
- Chemical-resistant boots or footwear (never wear leather or canvas footwear).