

# Emergency Aid and Safety

## *Pesticide Exposure*

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### Emergency Action—DO NOT HESITATE

#### You

If your clothing is soaked with pesticide, remove the contaminated articles quickly. Then gently wash the skin with large quantities of soap and water. Do **not** scrub the skin or use an abrasive cloth or brush. Include areas under your fingernails and toenails. Contaminated skin can also be rinsed with rubbing alcohol. Call or notify your supervisor or coworker immediately, giving full details of the incident.

#### Coworker

Move the victim well away from the contaminated area.

1. If there is respiratory weakness or **if breathing ceases, give artificial respiration immediately.** (see next page.)
2. Call a physician as quickly as possible. If you are alone, do **not** abandon the first-aid treatment.
3. Keep the patient as quiet as possible, warm, and comfortable.
4. When symptoms are moderate or severe and caused by organophosphate or carbamate poisoning, and if the patient is conscious, immediately give two atropine tablets (1/100 grain each). (see number 13 under Pesticide Safety, [page-7-2-3](#)). Then immediately contact the nearest medical help and request assistance, even if symptoms disappear.
5. If pesticide is splashed in the eyes, immediately wash with large volumes of clean water. Continue for at least 15 minutes.

6. If medical help cannot be obtained or is delayed, transport the patient to the nearest hospital, physician's office, or urgent medical clinic. If possible, use a radio or other means of communication to alert authorities and the hospital. Drive safely if you must transport a patient. Take the pesticide label or any available records of pesticides used and any other information which may aid in diagnosis and treatment.

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## First Aid With Rescue Breathing

If you think a person has stopped breathing, don't delay. Give first aid immediately. Ask someone else to get medical help.

1. Is the person breathing?



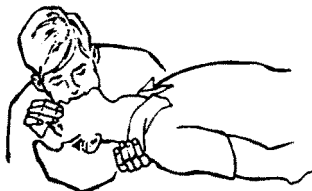
To find out if the person is breathing, place him flat on his back and put your ear close to his mouth. If he is breathing, you will feel his breath and see his chest rise and fall.

2. Open the airway.



If the person has stopped breathing, lift up his neck with one hand and push down on his forehead with the other. This opens the airway and the person may start to breathe. If he doesn't, begin RESCUE BREATHING at once.

3. Rescue Breathing. Keep one hand under the person's neck so that his head is tilted backward with his chin up. Pinch his nostrils shut with the fingers of your other hand.



Take a deep breath and cover his mouth completely with yours. Blow air into his mouth. When his chest moves up, take your mouth away and let his chest go down by itself.

Repeat this procedure every 5 seconds. Do **not** stop until the person starts breathing or medical help comes.

## General Symptoms

### Mild Poisoning

Any discomfort can be an indication of mild poisoning or some other sickness. Individuals who are exposed to poison and who experience the following symptoms should be aware that more serious indications may follow.

Headache, fatigue, skin irritation, loss of appetite, dizziness, weakness, nervousness, nausea, perspiration, diarrhea, eye irritation, insomnia, thirst, restlessness, irritation of nose and throat, loss of weight, soreness of joints, changes of mood.

### Moderate Poisoning

May be the beginning of severe symptoms. Nausea, trembling, muscular incoordination, excessive saliva, blurring of vision, feeling of constriction in the throat and chest, difficulty in breathing, flushed or yellow skin, abdominal cramps, vomiting, diarrhea, mental confusion, twitching of muscles, weeping, excessive perspiration, profound weakness, rapid pulse, cough.

### Severe Poisoning

Vomiting, loss of reflexes, inability to breathe, uncontrollable muscular twitching, constriction of pupils (to pinpoint pupils), convulsions, unconsciousness, severe secretion from respiratory tract, fever, intense thirst, increased rate of breathing.

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## Pesticide Safety

1. Read the label before using any pesticide and follow precautions. If material is transferred to another container for application, a copy of the label should be kept near the dispersing point.
2. Use only proper tools for opening containers. Carefully open bags and use the proper tools to prevent pesticide from spilling onto your face or hands.
3. Pesticides should be opened in an area where any spills can be cleaned up properly. Mixing and pouring should be done in a well-ventilated place removed from other personnel. If there is a breeze, personnel should be upwind of any transfer of pesticides.
4. Pour pesticides properly. If an air vent is provided, use it.
5. A good supply of lime, coarse clay, sand, sawdust, or other absorbent material should be readily available.
6. Do **not** allow any person to work alone, especially when handling highly toxic materials.

7. Wear clean, dry, long-sleeved shirts and trousers made of cotton or any protective clothing as directed by the label.
8. Wear rubber gloves, well-fitted goggles, a rubber apron, and rubber boots when handling concentrates. Be certain the equipment is adequate for the task. Thin rubber gloves (disposable) should only be used once. An apron or gloves made of permeable material may be hazardous.
9. Be careful **not** to spill toxic chemicals on skin or clothing. If this happens, remove contaminated clothing at once and wash skin and clothing thoroughly. All operators should have available one change of clean clothes in case of accidental spillage.
10. Wash hands and face immediately after applying pesticide, before using toilet, and before eating, drinking, or smoking. Do **not** eat, drink, or carry tobacco in areas where pesticides are present.
11. Do **not** use mouth to siphon or to blow out nozzles or clogged lines, etc. on equipment. Do **not** put fingers in mouth or rub eyes while working with pesticides.
12. Never use arms to stir or to reach into a container of pesticides to retrieve tools or other accidentally dropped items.
13. When applying the more toxic organophosphates and carbamate insecticides, be prepared to contact a physician. In case of poisoning, the physician can prescribe atropine tablets. Also, read the label to learn what additional actions to take in case of poisoning—like giving liquids or inducing vomiting.
  - A. If symptoms from poisoning include blurred vision, abdominal cramps, or tightness in the chest, and if a physician is **not** readily available, then immediately have the patient transported to the nearest doctor, hospital, poison control center, or urgent care clinic, even if symptoms subside.
  - B. Further symptoms may include nausea, vomiting, diarrhea, pinpoint pupils, bronchial edema, muscle twitches, giddiness, drowsiness, confusion, difficulty in speech, and finally, coma.
  - C. The acute emergency lasts 24 to 48 hours. The patient should be under the observation of a physician during this period. Illness caused by carbamate poisoning does **not** last as long as organophosphate poisoning symptoms.
14. A supply of detergent soap, clean water, rubbing alcohol, skin lotion, and a nail file (if possible) should be readily available.
15. Persons working regularly with or frequently exposed to the more toxic organophosphate pesticides should have periodic cholinesterase level checks and physical examinations if warranted by supervisor in consultation with local authorities, and Chapter 7, APHIS Safety and Health Manual.

- 16.** Respirators or filter masks with proper canisters approved or the particular type exposure noted in the label directions should be used when such pesticides are handled. Rubber boots may be needed in an area drenched with pesticides.
- 17.** Know the limitation of the protective clothing and equipment, especially respirators.
- 18.** Learn to recognize the symptoms of pesticide poisoning and know the first-aid measure to be taken in case of accident. Training in emergency measures should be given to all employees who work with pesticides.
- 19.** Have the telephone numbers of local hospitals, doctors, or poison control centers prominently displayed.
- 20.** Fatigue lowers the standards of pesticide safety. Key personnel should be aware that risk increases after long hours of work.
- 21.** If an employee feels any sign of illness suspected as being due to poisoning, he should contact a doctor immediately. However, certain circumstances such as consuming large amounts of liquids following excessive heat exposure may cause nausea, vomiting, dizziness, and cramps. Such signs mimic pesticide poisoning.

