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## **Chemicals Are an Important Part of life**

Chemicals are a natural and important part of our environment. Even though we often don't think about it, we use chemicals every day. Chemicals help keep our food fresh and our bodies clean. They help our plants grow and fuel our cars. And chemicals make it possible for us to live longer, healthier lives.

Under certain conditions, chemicals can be poisonous or have a harmful effect on your health. Some chemicals which are safe, and even helpful in small amounts, can be harmful in larger quantities or under certain conditions.

Chemical accidents do happen . . . at home and in the community, and the American Red Cross wants you to be prepared.

## How You May Be Exposed to a Chemical

You may be exposed to a chemical in three ways:

- 1. Breathing the chemical
- 2. Swallowing contaminated food, water, or medication
- 3. Touching the chemical, or coming into contact with clothing or things that have touched the chemical.

Remember, you may be exposed to chemicals even though you may not be able to see or smell anything unusual.

#### **Chemical Accidents Can Be Prevented**

Many people think of chemicals as only those substances used in manufacturing processes. But chemicals are found everywhere--in our kitchens, medicine cabinets, basements, and garages. In fact, most chemical accidents occur in our own homes. And they can be prevented.

### **Children and Poisoning**

The most common home chemical emergencies involve small children eating medicines. Experts in the field of chemical manufacturing suggest taking hazardous materials out of sight could eliminate up to 75 percent of all poisoning of small children.

Keep all medicines, cosmetics, cleaning products, and other household chemicals out of sight and out of reach of children. If your child should eat or drink a non-food substance, find any containers immediately and take them to the phone. Call the Poison Control Center or Emergency Medical Services (EMS), or 9-1-1, if you have it in your area, or call the operator giving this information. Follow their instructions carefully. Often the first aid advice found on containers may not be appropriate. So, do not give anything by mouth until you have been advised by medical professionals.





#### **Home Product Precautions**

Other home accidents can result from trying to improve the way a product works by adding one substance to another, not following directions for use of a product, or by improper storage or disposal of a chemical.

The first precaution you can take is to avoid mixing common household chemical products. Some combinations of these products, such as ammonia and bleach, can create toxic gases.

A second important precaution is to always read the directions before using a new product. Some products should not be used in a small confined space to avoid inhaling dangerous vapors. Other products should not be used without gloves and eye protection to help prevent the chemical from touching your body. Read and follow the directions.

Another effective way to protect yourself and your family is to store chemical products properly. Non-food products should be stored tightly closed in their original containers so you can always identify the contents of each container and how to properly use the product.

Never smoke while using household chemicals. Don't use hair spray, cleaning solutions, paint products, or pesticides near the open flame of an appliance, pilot light, lighted candle, fireplace, wood burning stove, etc. Although you may not be able to see or smell them, vapor particles in the air could catch fire or explode.



If you should spill a chemical, clean it up immediately with some rags, being careful to protect your eyes and skin. Allow the fumes in the rags to evaporate outdoors in a safe place, then dispose of them by wrapping them in a newspaper and then placing them in a sealed plastic bag. Dispose of these materials with your trash. If you don't already have one, buy a fire extinguisher that is labeled for A, B, and C class fires and keep it handy.

Buy only as much of a chemical as you think you will use. If you have product left over, try to give it to someone who will use it. Take care to dispose of it properly. Improper disposal can result in harm to yourself or members of your family, accidentally contaminate our local water supply, or harm other people.

It is also important to dispose of products properly to preserve our environment and protect wildlife. Plus, some products can be recycled and further protect our environment.





Many household chemicals can be taken to your local household hazardous waste collection facility. Many facilities accept pesticides, fertilizers, household cleaners, oil-based paints, drain and pool cleaners, antifreeze, and brake fluid. If you have questions about how to dispose of a chemical, call the facility or the environmental or recycling agency to learn the proper method of disposal.

## **Family Disaster Plan**

Making a Family Disaster Plan will help each family member to stay calm in an emergency. But most important, planning ahead can save the lives of the people you love. The plan should include what task each family member is responsible for during an emergency, where supplies are kept, how family members will let one another know where they are going if they are evacuated, and where everyone will meet when the disaster is over. A brochure describing how to make a Family Disaster Plan is available from your local Red Cross chapter.

## **Family Disaster Supplies Kit**

A Family Disaster Plan should include a Family Disaster Supplies Kit.

Let each member of the family help put it together. The kit should include:

- A first aid kit
- A battery-operated radio,
   flashlight, and extra batteries
- Bath size towels
- Plastic garbage bags
- Wide tape
- A county map
- Bottled water (at least 3 gallons of water per person)
- Non-perishable snack food
- List of family medications, eyeglasses, hearing aids

Ask one person to be responsible for replacing water every three months and food every six months. Batteries should also be replaced on a regular basis.

Tape the call letters and frequency numbers of your emergency alert radio stations (EAS) on the radio and make sure everyone knows how to work the radio and put in fresh batteries. Also tape the channel number of the television emergency broadcast stations on your TV



Every member of the family should know where the Family Disaster Supplies Kit is located--it should be stored within easy reach.

If you are a parent, don't assume that you will always be with your children in an emergency. Make sure they know how to protect themselves if you are not available to help.

At the beginning of the school year, take time to study the school or day care center emergency protective action plan, and discuss it with your children and their babysitters.

## **Major Chemical Emergencies**

A major chemical emergency is an accident that releases a hazardous amount of a chemical into the environment. Accidents can happen underground, on railroad tracks or highways, and at manufacturing plants. These accidents sometimes result in a fire or explosion, but many times you cannot see or smell anything unusual.



## **How You May Be Notified of a Major Chemical Emergency**

In the event of a major chemical emergency, you will be notified by the authorities. To get your attention, a siren could sound, you may be called by telephone, or emergency personnel may drive by and give instructions over a loudspeaker. Officials could even come to your door.

Listen carefully to radio or television emergency alert stations (EAS), and strictly follow instructions. Your life could depend on it.

#### You Will Be Told:

- The type of health hazard
- The area affected
- How to protect yourself
- Evacuation routes (if necessary)
- Shelter locations
- Type and location of medical facilities
- And the phone numbers to call if you need extra help.

Do not call the telephone company, and do not call EMS, 9-1-1, or the operator for information. Dial these numbers only for a possible life-threatening emergency.

#### **Shelter in Place**

One of the basic instructions you may be given in a chemical emergency is to "shelter in place". This is a precaution aimed to keep you and your family safe while remaining in your home. If you are told to shelter in place, take your children and pets indoors immediately.

While gathering your family, you can provide a minimal amount of protection to your breathing by covering your mouth and nose with a damp cloth.

- Close all windows in your home.
- Turn off all fans, heating and air conditioning systems
- Close the fireplace damper
- Go to an above-ground room (not the basement) with the fewest windows and doors.
- Take your Family Disaster Supplies Kit with you.
- Wet some towels and jam them in the crack under the doors.
- Tape around doors, windows, exhaust fans or vents. Use the plastic garbage bags to cover windows, outlets, and heat registers.
- If you are told there is danger of explosion, close the window shades, blinds, or curtains. To avoid injury, stay away from the windows.
- Stay in the room and listen to your radio until you are told all is safe or you are told to evacuate.



#### **Evacuation**

Authorities may decide to evacuate an area for your protection. Again, it is important to stay calm, listen carefully and follow all instructions.

If you are told to evacuate, listen to your radio to make sure the evacuation order applies to you and to understand if you are to evacuate immediately or if you have time to pack some essentials. Do not use your telephone.

If you are told to evacuate immediately:

- Take your Family Disaster Supplies Kit and medications
- Close and lock your windows
- Shut off all vents
- Lock the door
- Move quickly and calmly

If the authorities tell you to evacuate because of a possible chemical emergency, take your Family Disaster Supplies Kit

- A change of clothing for each member of the family
- Medication, eyeglasses, hearing aids or dentures, or things like canes and walkers
- Personal items such as toothbrushes, deodorant, etc.
- Items for your baby such as diapers, formula, or baby food
- Books, puzzles or cards and games for entertainment.



Do not assume that a shelter will have everything you need. In most cases, the shelters will provide only emergency items such as meals, cots, and blankets.

You don't need to turn off your refrigerator or freezer, but you should turn off all other appliances and lights before locking your home as you leave.

Check on neighbors to make sure they have been notified, and offer help to those with disabilities or other special needs. If you need a ride, ask a neighbor. If no neighbor is available to help you, listen to the emergency broadcast station for further instructions.

Take only one car to the evacuation site.

Close your car windows and air vents and turn off the heater or air conditioner.

Don't take shortcuts because a shortcut may put you in the path of danger. For your safety, follow the exact route you are told to take.





## **Emergency Procedures for School Children**

In an emergency, your children may be sheltered in place or evacuated from school. If protective actions are being taken at your children's school, do not go to the school. School personnel are trained to handle emergencies.

Do not call your child's school. You could tie up a phone line that is needed for emergency communications.

For further information, listen to local emergency radio and TV stations to learn when and where you can pick up your children.

## **Chemical Poisoning**

There are several symptoms of chemical poisoning whether by swallowing, touching, or breathing:

- Difficulty breathing
- Changes in skin color
- Headache or blurred vision
- Dizziness
- Irritated eyes, skin, throat
- Unusual behavior

Clumsiness or lack of coordination

Stomach cramps or diarrhea

If you think you have been exposed to a toxic chemical, call the poison control center, EMS, or 9-1-1, or the operator, whichever applies to your area.

If you think you have been exposed to a toxic chemical, call the poison control center, EMS, or 9-1-1, or the operator, whichever applies to your area.

If you see or smell something that you think may be dangerous, or find someone who has been overcome with toxic vapors, your first job is to make sure that you don't become a victim. If you remain in a dangerous area and become injured or unconscious, you cannot help yourself or any victims.

Because chemical poisoning can be a life-threatening emergency:

- 1. Send someone to call EMS, immediately.
- 2. Tell the operator the location of the emergency and the phone number from where you are calling.
- 3. Describe what has happened, how many people are involved, and what is being done to help.
- 4. Stay on the phone until the operator tells you to hang up.

If you are trained in CPR or first aid, and feel confident that you are not in danger, check the person for life-threatening injuries. Administer appropriate treatment, and then deal with the chemical injuries.

If you have not recently taken a course in CPR or first aid, contact your local Red Cross for course information and schedules.

#### First Aid Treatment for Chemical Burns

A chemical burn can be minor or life threatening, but proper treatment can reduce the chance of infection and the damage caused by contact with the chemical.

Remove any affected clothing or jewelry from the injury. Use lots of cool running water to flush the chemical from the skin until emergency help arrives. The running water will dilute the chemical fast enough to prevent the injury from getting worse.

Use the same treatment for eye burns and remove any contact lenses. Be careful to flush the eye from the nose outward.

If no large amount of clean water is available, gently brush the chemical off the skin and away from the victim and you'



If the chemical is on the face, neck, or shoulders, ask the victim to close his or her eyes before brushing off the chemical.

Cover the wound very loosely with a dry, sterile or clean cloth so that the cloth will not stick to the wound. Do not put any medication on the wound. Seek medical attention immediately.

If you believe you have been contaminated with a chemical, call the Poison Control Center, EMS, 9-1-1, or the operator immediately. If medical help is not immediately available, remove your clothing starting from the top and working your way down to your socks. Take care not to touch your contaminated clothing to your bare skin. Place your clothing in a plastic bag so it cannot contaminate other people or things. Take a thorough shower to wash any chemical away. Re-dress in clean clothing and go for medical help at your first opportunity

## Who Helps in a Chemical Emergency

There are many organizations that help the community in an emergency, such as police, fire, and sheriff departments, the American Red Cross, and government agencies. All these groups coordinate their activities through the local office of emergency management. In many areas there are local Hazardous Materials, or Haz-Mat Teams, who are trained to respond to chemical accidents. In the event of a chemical emergency, it is very important that you follow the instructions of these highly trained professionals. They know best how to protect you and your family.

## **Important Points To Remember:**

- 1. Chemicals are everywhere. They are an important part of life.
- 2. The most common chemical accidents occur in our own homes and can be prevented.
- 3. The best ways to avoid chemical accidents are to read and follow the directions for use, storage, and disposal of the product.
- 4. Don't mix products, especially household cleaning products.
- 5. Develop a Family Disaster Plan and pack a Family Disaster Supplies Kit.

- 6. In the event of an emergency, follow the instructions of the authorities carefully. Listen to your emergency broadcast stations on radio and TV.
- 7. Use your phone only in life-threatening emergencies, and then call the Poison Control Center, EMS, 9-1-1, or the operator immediately.
- 8. If you are told to "shelter in place", go inside, close all windows and vents and turn off all fans, heating or cooling systems. Take family members and pets to a safe room, seal windows and doors, and listen to emergency broadcast stations for instructions.
- 9. If you are told to evacuate immediately, take your Family Disaster Supplies Kit. Pack only the bare essentials, such as medications, and leave your home quickly. Follow the traffic route authorities recommend. Don't take short cuts on the way to the shelter.
- 10. If you find someone who appears to have been injured from chemical exposure, make sure you are not in danger before administering first aid.
- 11. And lastly, remember, the best way to protect yourself and your family is to be prepared.

The **American Red Cross** is an organization managed by volunteers from your community. Although it receives no money from the government, it is chartered by the U.S. Congress to provide disaster relief. All help given to people during a chemical, house fire, storm, or other emergency is free of charge and supported through charitable contributions and the United Way.

Emergency help may include shelter, meals, replacement of essential medication, and personal hygiene supplies. The Red Cross may also help reunite families by staying in touch with all evacuation sites.

The strength of the Red Cross is its core of volunteers who work in all levels of the organization. If you would like more information about becoming a Red Cross volunteer, either in Disaster Services, Health and Safety, Blood Services, or community programs, call your local Red Cross chapter

# IMPORTANT TELEPHONE NUMBERS EMERGENCY MEDICAL SERVICE: 9-1-1

If your area does not have 9-1-1 service, write down the local EMS number here:

If an accident involving hazar authorities as to what steps to emergency personnel may dri could even come to your door	take, You may hear a sire tive by and give instructions	•
If you hear a warning signal, Broadcast System (EBS) stati officials. Ask your local official stations carry official message	ion for emergency instruction for emergency manageme	ons from county or state ent or Red Cross chapter which
EBS stations that serv	ve my area:	
Station call letters	Frequency	AM/FM
It is also important to write do your area:	own the number of the Pois	on Control Center that serves
Poison Control Center:		
Other important numbers:		
Local office of emergency n	nanagement:	
Local Red Cross chapter:		

For further information about how to prepare for natural and technological disasters or to arrange for a speaker to make a presentation on family and individual preparedness, call your local American Red Cross chapter.

The American Red Cross is not a government agency and does not receive funding from the government. Funding for American Red Cross programs is a gift of the American people, provided through generous donations to the United Way and the Combined Federal Campaign, and by direct donations to your local Red Cross. Your support of your local Red Cross is sincerely appreciated

#### Your local Red Cross contact is:

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