



Unit V – Wellness, Fitness and First Aid

Chapter 10 - First Aid for Emergency and Nonemergency Situations

Section 4 – First Aid for Poisons, Wounds and Bruises



What You Will Learn to Do

Determine first aid procedures and apply them as needed



Objectives

1. Give first aid treatment for burns, wounds, bruises and poisoning



Key Terms

Solvents -	Liquid substances capable of dissolving or eliminating something unwanted
Abrasion -	A part of the skin that has been lightly torn or scraped
Incision -	A wound that is made by cutting into the body
Laceration -	A wound that is torn and ragged



Key Terms

Amputation -

The removal of an external part of the body, most often a limb or part of it, when it has been severely crushed or following the death of the extremity due to impaired blood circulation

Avulsion -

The tearing away of a body part accidentally or surgically



First Aid for Poisons, Wounds, and Bruises



Whenever small children are left alone in the kitchen, accidents can happen.

You must be especially careful about cleaning products which may be left out in the open.



Poisons

As consumers, we buy more than a quarter of a million different household products, including materials used for medication, cleaning, cosmetic purposes, exterminating insects, and killing weeds.

While these items are very valuable for house and yard maintenance, when misused, they can cause **illness**, **injury**, and even **death**.





Poisons

Each year over **6,000** people die, and an estimated **300,000** more suffer disabling illnesses, as a result of unintentional poisoning by solid and liquid substances.





Poisons

Though child-resistant packaging has helped reduce child fatalities, **poisonings can happen to anyone**, at any time, in any situation.

- Poisonings at home from drugs, medicines, poisonous houseplants and poisons caused 6,300 deaths in 1998
- An additional 500 died that year from poisonous gases and vapors
- The age group 25-44 is also at high risk, using but often not following directions, for medications and household chemicals





Poisons

Poisons can be **inhaled** or **ingested**.

Fortunately, most poisonings happen with products of low toxicity or with amounts so small, severe poisoning rarely occurs.

However, the potential for severe or fatal poisoning is always present.





Inhaled Poisons

Inhaled poisoning occurs when a person breathes a poisonous substance into his or her lungs.

Inhaled poisons could include

- **Smoke**
- **Gas** used in outdoor cooking equipment, home and recreational vehicle appliances
- **Fumes** from household products such as:
 - Paint
 - Paint thinners
 - Gasoline
 - Chemicals used in industrial processes
 - Glues and solvents

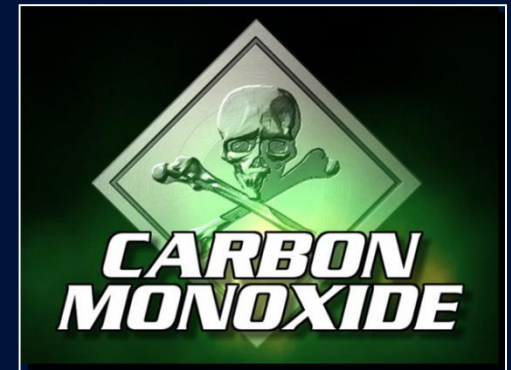




Inhaled Poisons

Carbon monoxide

- Is a very dangerous poisonous gas
- Is odorless, colorless, tasteless... making it difficult to detect
- Is **always** produced by wood, coal and charcoal fires and by gasoline engines
- Also **can be** produced by gas, oil and kerosene appliances such as furnaces, space heaters, water heaters, stoves





Inhaled Poisons

When a person inhales carbon monoxide, it replaces oxygen in the blood, which results in **oxygen starvation** throughout the body.

Exposure to low amounts of carbon monoxide can cause flulike symptoms; continued exposure can cause permanent brain, nerve, and heart damage.

Exposure to a very high concentration of carbon monoxide can kill a person in just a few minutes.





Inhaled Poisons

- Running a car engine in a closed garage
 - Using a charcoal grill indoors
 - Burning a fire in a fireplace with a blocked chimney
- ...can all result in **carbon monoxide poisoning**





Symptoms of Inhaled Poisoning

The symptoms of inhaled poisoning may not show up immediately.

- If you **suspect** inhaled poisoning, keep the victim under observation.
- If you **know** the victim has inhaled a poisonous chemical, get medical help whether or not symptoms are present.



Symptoms of Inhaled Poisoning

Symptoms will vary depending on the type and amount of poison inhaled but can include any of the following:

- Dizziness
- Weakness
- Drowsiness
- Headache
- Mental confusion
- Breathing difficulties
- Heartbeat irregularities
- Unusual breath odor
- Discoloration of the lips and mucous membranes
- Nausea
- Vomiting
- Rashes or burns on the skin
- Unconsciousness



Treatment for Inhaled Poisoning

Before rescuing a victim in a smoke-, gas-, or fume-filled environment, assess the situation so that you do not end up a victim as well.



If the poisonous substance is overwhelming and the danger to you is too great, **call EMS** immediately, and stay clear.

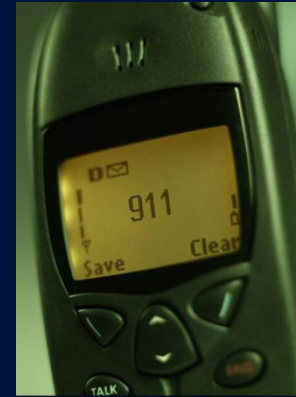
However if you do believe you can safely remove the victim, proceed as follows...



Treatment for Inhaled Poisoning

Rescue

1. If you are alone, call for help first before attempting the rescue. This will notify others of the situation.



2. Take several deep breaths of fresh air, then take a final deep breath and hold it as you go in. If available, put a damp cloth over your nose as a safety precaution.



Treatment for Inhaled Poisoning

Do not use light switches, light a match, or use any other equipment that produces flames/sparks while in a gas-filled area.



3. If you can see fumes or smoke, **keep your head out** of them. For example, car exhaust fumes are heavy and settle near the floor, so keep your head above them. Smoke rises; keep your head below it.



Treatment for Inhaled Poisoning

4. **Move the victim out** into the fresh air. If this is not possible, open doors and windows to ventilate the area. When everyone is out of danger, administer first aid.

Check the victim's **ABC's** and perform mouth-to-mouth (rescue breathing) resuscitation and CPR as necessary.

Once the victim is breathing again, call EMS.





Oral Poisoning

Oral poisoning occurs when a harmful substance, such as a common household cleaning product, is swallowed.

First aid for oral poisoning depends on the substance swallowed.





Symptoms of Oral Poisoning



- Abdominal pain and cramping
- Nausea or vomiting
- Diarrhea
- Burns, odor, and stains around and in the mouth
- Drowsiness or unconsciousness
- Poison containers nearby



Treatment for Oral Poisoning

1. Determine critical information
 - Age and size of victim
 - What was swallowed
 - How much was swallowed
 - When it was swallowed
2. If a corrosive or caustic substance was swallowed, immediately dilute it by having the victim drink at least one or two eight-ounce glasses of **water** or **milk**.





Treatment for Oral Poisoning

4. If the victim is **responsive**, call a poison control center immediately. More than 70% of poisonings can be treated through instructions taken over the phone. If the victim is **unresponsive**, or if the poison control center number is unknown, call EMS and monitor the ABCs.
5. Place the victim on his or her **left side**. This will delay advancement of the poison in the small intestine, where absorption into the victim's circulatory system is faster.



Treatment for Oral Poisoning

6. Induce vomiting only if a **poison control center** or physician advises it. Inducing must be done within 30 minutes of swallowing.



7. Save poison containers, poisonous plant or other suspected poison to help medical personnel **identify** it.



Wounds

Generally, wounds can be classified as one of four types

Scrapes (**abrasions**) – caused by sliding contact between the skin & rough surfaces; not much bleeding



Cuts (**incisions**) – straight, even wounds made with sharp objects like knives or razor blades



Tears (**lacerations**) – caused by objects with sharp, irregular edges or by force that leaves torn tissue



Punctures – caused by pointed objects such as nails that make small holes in tissue, often with little bleeding





Wounds

A wound is considered serious if:

- The skin is cut or torn all the way so that it gapes open
- Fat, muscle or tendons are visible
- Bleeding is heavy and does not slow or stop after applying pressure 15-20 minutes



- There is loss of function such as inability to move a cut finger
- It is on the face
- It is on the bottom of the foot



Wounds

Shown on the next slide are combinations of the four kinds of wounds shown before, and are **extremely serious types of wounds** that require immediate medical attention.

They are generally the result of motor vehicle or industrial machinery accidents, or explosions.



Wounds

An **amputation** is the complete removal of an extremity, such as a finger or a leg.



An **avulsion** is tissue torn from or pulled away from and hanging off the body. May be the result of a bite.

Crushing injuries occur when parts of the body are caught between heavy objects or when the body is thrown against a heavy object.





Treatment of Wounds

Clean a minor wound by flushing it with cool water and washing it with mild soap. Dry it thoroughly with a clean cloth.



Apply a thin layer of antibiotic ointment to keep it moist and protected against infection. Cover with a bandage to keep it clean.



Treatment of Wounds

For wounds caused by a rusty or dirty object or an animal bite, ask if the victim has had a **tetanus shot** within the past ten years. If not, suggest that he/she get one.





Treatment of Wounds

For **amputations**, **avulsions**, or **crushing injuries**...

- Call EMS
- Control the bleeding
- Monitor breathing
- Treat for shock
- Provide comfort to the victim until medical help arrives

Remember, **tourniquets** should only be used in extreme, life-threatening situations, and pressure points should only be used by trained personnel.



Bruises

Bruises are injuries that discolor but do not break the skin tissue. They can be caused by a fall, a blow, or bumping into something.



They can be ugly and last for weeks but are usually not very serious.



Bruises

To treat a **bruise**, apply ice in a clean towel or an ice pack.



Seek medical attention if:

- Swelling increases unusually
- Pain increases
- The bruise site appears deformed
- There is an inability to move the bruised body part



Questions?

