PRESENTER'S GUIDE

"<u>FIRST AID</u> IN CONSTRUCTION ENVIRONMENTS"

Part of the Construction Safety Kit Series



OUTLINE OF MAJOR PROGRAM POINTS

The following outline summarizes the major points of information presented in the program. The outline can be used to review the program before conducting a classroom session, as well as in preparing to lead a class discussion about the program.

- Sometimes "first aid" can be as simple as cleaning a fresh scrape on your arm and covering it with a bandage.
 - Other times it could be as dramatic as helping a coworker in out of the sun and treating them for heat exhaustion.
- To be able to help in these situations you need to understand:
 - The injuries and illnesses that you could encounter on the job.
 - The steps you should and should <u>not</u> take to provide basic first aid.
 - Situations where you should call for emergency medical assistance.
- One thing that's important to know in all situations is where the first aid kits are on every job site... in the project trailer, a JoBox, wherever.
 - You don't want to be running around looking for one in the midst of an emergency.
 - So take a walk and locate them today!
- Our ability to see is precious, so it's important to know what we can do to safeguard our vision and avoid making things worse when we deal with eye injuries.
 - If you get a small particle of something in your eye, <u>do not</u> to rub it.
 - This can result in scratching the eye's surface.
- Instead, allow the eye to flush the particle away naturally, with tears. You can help by:
 - Blinking the eye repeatedly.
 - Pulling your eyelid out gently, then letting it slip back into place.

- For stubborn particles, try rinsing the eye with water or artificial tears.
 - If that doesn't work, see a doctor.
- Cleaning solutions, solvents and other chemicals can cause serious burns if they get into our eyes.
 - If you get splashed by one of these substances, stay calm and keep your eyes open.
 - Closing them traps the chemicals against the eyes, where they will cause more damage.
- Instead, go to the nearest source of clean water on the site and rinse the affected eye.
 - Hold it open with your fingers.
 - Continue rinsing for at least 15 minutes, if possible.
 - Then call for medical assistance.
- When seconds count, you don't want to have to go searching for emergency contact numbers.
 - Make sure you know where to find them quickly.
 - Even better, program them into your phone, too.
- If a large object such as a piece of glass, splinter or nail becomes embedded in a coworker's eye, do not try to remove it.
 - Pulling it out could cause further damage.
- Instead, call for medical assistance immediately.
 - Cover the affected eye with an eye shield or the bottom half of a paper cup.
 - Secure it lightly in place.
 - Then wait for the EMTs, or get to a doctor.
- Cuts, burns and abrasions are some of the most common injuries on a job site.
 - Most minor cuts and scrapes may bleed little, if at all.
 - Clean them by rinsing with water.
- You can also gently wash the area around the wound with soap, but don't get soap in the wound itself.
 - Then pat the area dry, apply antibiotic cream and cover it with a sterile bandage.

- When bleeding does occur, press a clean cloth, tissue, or piece of gauze directly over the wound to stop it.
 - If blood soaks through, don't remove the covering.
 - Put more on top and continue to apply pressure.
 - When bleeding stops, cover with a sterile bandage.
 - Later, you'll want to clean and re-dress the injury.
- To remove the scabbed bandage material:
 - Soften with warm saline solution and proceed slowly.
 - Or see a doctor.
- Serious wounds require medical attention. Call 911 when:
 - The wound is deep or has gaping or jagged edges.
 - The bleeding will not stop.
 - Blood is spurting from the wound.
- It's important to remember that coming into contact with another person's blood could infect you with a "bloodborne disease" such as Hepatitis B or AIDS.
 - Avoid contact with anyone's blood but your own.
 - Before assisting a coworker with a bleeding injury, always put on a pair of sterile gloves (there should be a pair in your first aid kit).
- Burns require a different approach.
 - Since even minor burns can be very painful, hold them under cool (but not cold) running water to ease the discomfort.
 - You can then apply moisturizing cream, aloe vera gel or a burn treatment product.
- If a blister forms, try not to break it. But if it does break:
 - Leave the skin in place.
 - Clean the wound gently with soap and warm water.
 - Apply antibiotic cream.
 - Cover the area with a gauze bandage.
- You should be able to find all the supplies you need to treat minor burns in your first aid kit.

- For more serious burns with large blistered areas or charring, call 911.
 - While waiting for help, you can comfort the victim by elevating the burned area and applying a cool, moist bandage.
 - Do not immerse major burns in cold water (this can cause hypothermia and shock).
- Most strains and sprains, and all fractures, should be considered serious injuries and evaluated by a doctor as soon as possible.
- For minor strains and sprains you can help to reduce swelling by remembering the acronym "RICE"... Rest, Ice, Compress, Elevate.
 - To <u>rest</u> an injured limb or joint, simply don't use it (keep weight off it).
 - Apply ice for 20 minutes every hour.
 - Compress the injury by wrapping the joint or limb in an elastic bandage.
 - <u>Elevate</u> the area so that it's above the level of the heart.
- Begin RICE therapy immediately after an injury, and continue it for 24 to 48 hours, or until you see a doctor.
- More severe injuries require different measures. Call for emergency assistance immediately if:
 - A person's limb or joint appears to be deformed.
 - A bone is protruding from their skin.
 - You think they may have broken bones in their head, neck or back.
- You should also get help if the victim:
 - Feels severe pain or numbness.
 - Can't move the injured joint or limb.
 - Has the limb buckle when they try to use it.

- In these cases, don't move the person unless it's necessary to prevent them from suffering additional injuries.
- Don't try to realign a broken bone yourself, or push in a bone that's sticking out.
- If the injured person feels dizzy, is breathing rapidly, has pale, clammy skin and enlarged pupils, they may be going into "shock".
- "Shock" is a life-threatening condition that occurs when your system tries to cope with an injury by redirecting the blood flow within the body.
 - This can cause some organs to get too little blood, and can result in organ damage or even death if nothing is done to stop it.
- If you suspect that a coworker is going into shock:
 - Call for emergency assistance (if you haven't done so already).
 - Help them lie down.
 - Elevate their legs and feet slightly, if possible.
 - Cover them so they stay warm
 - Stay with them until help arrives.
- When a person is having a heart attack, or going into cardiac arrest, it's a serious situation.
 - Their life is in immediate danger.
- A heart attack occurs when the blood supply to the heart muscle stops, and the muscle tissue begins to die as a result.
- A victim of a heart attack usually feels a sharp pain in the center of their chest, or between their shoulder blades.
 - Often mistaken for indigestion or heartburn, the discomfort may spread to the shoulders, neck and arms as well.
- Other symptoms of a heart attack include shortness of breath, sweaty or clammy skin, lightheadedness, nausea and vomiting.

- If you believe someone is having a heart attack:
 - Have them sit down.
 - Loosen their clothing, especially at the collar.
 - Ask them if they use any medicine, such as nitroglycerin, for a heart condition.
 - If they do, help them take it immediately.
- If the pain does not stop within 3 minutes of taking their medication, or they don't have it with them, call for emergency medical help.
- If the person suddenly stops responding to you, or stops breathing, they may be going into cardiac arrest.
 - This is when the heart either begins to beat abnormally or stops beating completely.
- Tap them on the shoulder and shout, "Are you OK?" If they show no reaction:
 - Have someone call 911.
 - Begin CPR immediately.
 - Use an AED (Automated External Defibrillator) if one is available and you know how to operate it.
- CPR and the use of an AED can significantly increase the victim's chances of survival.
 - If you don't know how to perform CPR or use an AED, get help from someone on the site who does.
 - Consider getting trained in these skills yourself (it could save a coworker's life).
- Choking occurs when a foreign object, usually food, lodges in a person's throat or windpipe, and prevents them from breathing.
- A person who is choking will be unable to talk. They may:
 - Cough and gag.
 - Make squeaky sounds when trying to breathe.
 - Clutch at their throat.
 - Make frantic gestures.
- Unless the blockage is removed, they can lose consciousness and die of suffocation in minutes.

If a coworker begins choking, you need to help them immediately.

- Have someone call for emergency assistance, if possible.
- If you are alone with the victim, only call for assistance <u>after</u> you help them.

To clear their airway use the "Five and Five" procedure. Begin by giving 5 blows to the victim's back:

- Standing beside the person, place one arm across their chest for support.
- Bend them over at the waist so the upper body is parallel with the ground.
- Deliver five separate back blows between the shoulder blades with the heel of your hand.

• Then, perform 5 "abdominal thrusts":

- Standing behind the person, wrap your arms around their waist and lean them forward slightly.
- Make a fist with one hand, position it above the person's navel and grasp the fist with your other hand.
- Press hard into the abdomen with a quick, upward thrust, as if you are trying to lift the victim off their feet.

After delivering 5 abdominal thrusts, give 5 more back blows.

- Continue alternating between them, "five and five", until the blockage comes out.
- If you begin to choke and no one is around to help you, you can perform abdominal thrusts on yourself:
 - Place a fist slightly above your navel and grasp the fist with your other hand.
 - Deliver quick inward and upward thrusts against your upper abdomen.
- Another approach is to bend over a hard surface, such as a work table or tailgate of a pickup truck, and thrust your upper abdomen against it.
 - Keep it up until the blockage is expelled and you can breathe freely again.

- Our body has automatic "cooling processes" that normally bring our temperature down when we get overheated.
- Sometimes those processes get out of whack... and when they do, "heat-related illnesses" such as heat exhaustion and heat stroke can occur.
- For example, sweating helps cool us by "evaporation", but the process also drains our system of the water and "electrolytes" that keep our body functioning normally.
- When our water and electrolyte levels get too low, we begin to suffer from "heat exhaustion".
 - Symptoms of heat exhaustion include excessive sweating, cold and clammy skin, headache, dizziness, weakness and nausea.
- If you believe a coworker is suffering from heat exhaustion:
 - Get them into a cool or air-conditioned area.
 - Loosen their outer clothing.
 - Have them drink cool liquids, such as water, or sports drinks that contain electrolytes... but nothing that contains caffeine or alcohol.
 - Cool them down by spraying or sponging them with water, fanning them, or applying ice packs if they are available.
- If the victim doesn't recover within 60 minutes, they should be taken to a clinic or emergency room to be evaluated by a doctor.
- Sometimes the body's natural cooling system can break down completely.
 - Then we stop sweating and our temperature can go through the roof.
 - This is known as "heat stroke".
 - It can severely damage internal organs, including the brain, and can even be fatal.

- The skin of a heat stroke victim will be hot and dry.
 - They may stagger and appear to be confused.
 - Eventually they may have seizures and lose consciousness.
- If you suspect someone has heat stroke, call for medical assistance immediately.
 - Get the victim out of the heat.
 - Give them the same cooling treatments as for heat exhaustion.
 - Stay with them until help arrives.

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- You should know how to use first aid to help treat minor illnesses and injuries.
- Locate the first aid kits on your job site, and know how to use the supplies in them.
- Learn to recognize injuries and medical conditions that require emergency assistance.
- Make sure you can find local emergency numbers quickly (program them into your cell phone).
- Know how to use the "abdominal thrust" and "Five and Five" procedures to help someone who is choking.
- Consider getting trained in CPR and how to use an AED.
- By knowing when someone needs first aid, and what you can do to assist them, you can help minimize the impact of a coworker's injury... or even save a life!