

SAFETY SHOWERS AND EYE WASHES **IN THE LABORATORY**

COURSE OUTLINE

- **No one wants to be in an accident. To prevent them we:**
 - Wear personal protective equipment.
 - Select apparatus carefully.
- **But, in spite of our precautions, accidents sometimes happen.**
 - Quick action is imperative.
 - A safety shower or eye wash can be very important.
- **There are many types of safety showers and eye washes.**
 - The best activate the water with one step.
 - Water then continues to flow until it is turned off.
- **Safety showers should have a strong enough flow to immediately drench the victim.**
 - They should also provide enough water for fifteen minutes of use.
- **Eye washes should produce a soft stream or spray.**
 - Often this is aerated.
 - The water should also last for at least fifteen minutes.
- **Showers/eye washes should be located wherever corrosives or other hazardous substances exist.**
 - These chemicals can cause severe damage to skin and eyes.
- **Corrosives include:**
 - Strong acids.
 - Strong bases.
 - Dehydrating agents.
 - Oxidizing agents.
- **Specific examples of corrosives include:**
 - Sulfuric acid (causes painful, slow-healing burns).
 - Potassium hydroxide (can inflict severe damage to the eyes).

- **Always take the proper steps to avoid corrosives' effects.**
 - Wear personal protective equipment.
 - Plan in advance for emergencies.
 - Read Safety Data Sheets before starting work.
 - Review your facility's Chemical Hygiene Plan.
- **You should know the locations of safety showers/eye washes, and how to use them.**
 - You should be able to find them with your eyes closed.
- **Be ready to assist coworkers in the event of trouble.**
 - You could save someone's eyesight or even their life.
- **It is important to make it easy to reach showers/eye washes.**
 - Keep routes free of equipment/supplies.
 - Keep areas under showers clear.
- **Shower and eye wash equipment should be routinely tested.**
 - Put together a schedule.
 - Mark the dates and results of testing on a tag.
 - Contact your supervisor if any problems.
- **If you are splashed by a hazardous substance, take the following steps:**
 - Do not panic.
 - Call out for help.
 - Get to a shower or eye wash immediately (depending on the incident).
- **If you are helping a victim, take charge.**
 - The incident may require "helpers".
 - Make sure the victim is completely drenched.
 - Remove personal protective equipment.
 - Completely soak their clothes, then remove them (at least down to underwear).
 - Remove their shoes.
- **Shower water is normally cold.**
 - Treatment may be necessary for hypothermia.

- **"Waste" water from showers/eye washes should be surrounded with absorbent material.**
 - This will prevent the spread of contamination.
- **After the initial deluge, the victim can be taken to an alternate area, for further decontamination.**
 - Remove their remaining clothing.
 - Then complete the showering process.
 - The entire showering time should be no less than fifteen minutes.
- **"Helpers" will also probably be wet.**
 - They may also need to be decontaminated.
 - Hypothermia may be a consideration.
- **In certain situations, shower water and clothing may need to be disposed of as hazardous waste.**
 - The shower may drain into a sewer.
 - Outside agencies may need to be notified about contamination.
- **For showers that contain drains, some water should always be kept in the trap.**
 - This keeps sewer gases from rising into the room.
- **If a chemical splash is constrained to the eye area, you should use an eye wash.**
 - It should provide continuous, gentle stream of water.
- **Get to the eye wash as quickly as possible.**
 - Hold the eye open with your fingers.
 - Rinse completely, under and behind the eyelid.
- **If only one eye was splashed, don't contaminate the other eye with residual water.**
 - Drench the contaminated eye for at least fifteen minutes.
- **Many portable eye wash units do not supply fifteen minutes of water.**
 - Use these only for an initial wash.
 - Follow up with a fifteen minute rinse.
- **Small eye wash bottles don't provide adequate rinsing.**
 - Only use them when nothing else is available.

- **Handheld "drench hoses" require constant hand pressure to operate.**
 - They don't free up both hands for manipulating the eye.
 - Because of this they are not approved as eye washes.
- **If you have been the victim of a splash accident:**
 - Seek medical attention.
 - Report it to your supervisor.

*** * * SUMMARY * * ***

- **Be prepared to act in an emergency.**
- **Know safety shower and eye wash locations.**
- **Know how to use them.**
- **This knowledge can prevent serious injuries.**