

EVERYONE'S BUSINESS: SUMMER HEAT & CHEMICAL SAFETY

Heat Related Illness

When the body is unable to cool itself by sweating, several heat-induced illnesses such as heat cramps or heat exhaustion, and the more severe heat stroke which can be fatal. We've gotten through some heat waves this summer but there may be more to come. Here are some helpful facts from OSHA on Heat Related Illness.

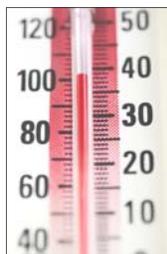


Factors Leading to Heat Related Illness:

- High temperature and humidity.
- Direct sun or heat.
- Limited air movement.
- Physical exertion.
- Poor physical condition.
- Some medicines.
- Inadequate tolerance for hot workplaces.

Symptoms of Heat Exhaustion:

- Headaches, dizziness, lightheadedness or fainting.
- Weakness and moist skin.
- Mood changes such as irritability or confusion.
- Upset stomach or vomiting.



Heat Cramps

These usually affect workers who sweat a lot during strenuous activity. This depletes the body's salt and moisture levels. Low salt levels in muscles cause painful cramps. These may also be a symptom of heat exhaustion.

Symptoms of Heat Cramps:

- Muscle pain or spasms usually in the abdomen, arms, or legs.

Symptoms of Heat Stroke:

- Dry, hot skin with no sweating.
- Mental confusion or losing consciousness.
- Seizures or convulsions.

Preventing Heat Related Illness:

- Know signs/symptoms of heat-related illnesses;
- monitor yourself and coworkers.
- Block out direct sun or other heat sources.
- Use cooling fans/air-conditioning; rest regularly.
- Drink lots of water; about 1 cup every 15 minutes.
- Wear lightweight, light colored, loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, or heavy meals.
- What to Do for Heat-Related Illness
- Call 911 (or local emergency number) at once.



While waiting for help to arrive:

- Move the worker to a cool, shaded area.
- Loosen or remove heavy clothing.
- Provide cool drinking water.
- Fan and mist the person with water.

Learn more on Heat Related Illness at the CDC's National Institute for Occupational Safety and Health (NIOSH):

<http://www.cdc.gov/niosh/topics/heatstress/>

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Environmental Health & Radiation Safety 503-494-7795



Topic of the Month:

CHEMICAL SAFETY

The Oregon Occupational Safety and Health Administration (OR-OSHA) maintains a **Hazard Communication Standard** which applies to the use of hazardous and toxic substances in the workplace.

MSDS = Material Safety Data Sheet

This is the best source of physical and chemical information about any hazardous substance in your work area. A MSDS exists for every hazardous chemical, and must be kept in your work area.

MSDS Binders should be kept up to date and be made available to all employees. The first page of the binder should alphabetically list all hazardous chemicals in that particular work area (**required by law**). If the binder in your area does not contain a particular MSDS for a chemical you use, be sure to update the binder. Most MSDS are available through manufacturers' websites. Visit this link for details on creating and maintaining MSDS binders:

<http://www.ohsu.edu/xd/about/services/integrity/ehrs/safety/chem/msds.cfm>

An MSDS for everything?

If you work with or around hazardous chemicals or other hazardous materials, the law requires that you **keep paper copies of Material Safety Data Sheets (MSDS) for all hazardous chemicals in use.**



The exception applies when consumer-use products are being used for their intended purpose (e.g.: hairspray for holding hairdos, or glass cleaner for cleaning glass), in normal, consumer-use quantities and concentrations. If you are using a product outside of its intended use, quantity or concentration (e.g.: the same hairspray is used to fix cytology samples, or glass cleaner is used to clean floors), you must maintain an MSDS.

Chemical Containers

There are two basic kinds of containers: primary and secondary. The primary container comes from the manufacturer. Labels on primary containers include all kinds of information that OSHA requires the manufacturer to supply. A **secondary container** is one that we establish when transferring contents of a primary container to any other container.



A secondary container must always be labeled.

The label can show less information than the primary label but it must include:

1. **Product Identity** - name of what is inside.
2. **Health Effects** - basic risk information.

Environmental Health & Radiation Safety (EHRS) makes chemical and high-level disinfectant labels available. Call 503-346-0082 (6-0082) for details.

OHSU Policies

The Hazard Communication Policy can be found at:

<http://www.ohsu.edu/xd/about/services/integrity/policies/upload/hazcom.pdf>

Relevant Environment of Care policies can be found at:

<http://ozone.ohsu.edu/healthsystem/adminindex.shtml#EnvSafety>

Personal Protective Equipment

If you work with hazardous materials, don't forget your Personal Protective Equipment (PPE)! This includes gloves, eye protection, face shield, gown, lab coat, and other items used to prevent exposures to chemicals. EHRS experts can make sure you are using the right PPE. Ask for help if you are unsure by calling :



EHRS 503-494-7795

SAFETYTEAM MEMBERSHIP

SafetyTeam Members spend approximately 15 minutes per month to help ensure a safe workplace at OHSU. Members receive monthly email with a link to this newsletter and a few brief questions to answer.

Members then channel safety concerns from locations and departments all over OHSU to the SafetyTeam Coordinator, who then helps connect members with resources and when necessary, brings concerns to the OHSU Safety Committee.

To join, contact safeteam@ohsu.com or 4-7795.



Systems Thinking: Stuck again!

This incident was reported in the Worker & Student Injury Reporting System (WSIRS). The system asks for accounts from both the employee and the supervisor. It then asks the supervisor what could have prevented the incident, and what actions would be taken in this regard.

Getting stuck by needles is unfortunately more common than we'd like. It's an area of accident prevention that's tough to manage. What kinds of solutions would help in the following situation?

Employee: My middle finger was stuck by a needle. I was cleaning a patient room and picked up paper from the floor. There was a needle under it on the floor and my finger got stuck. I went to the ED.

Supervisor: The employee was hurrying while cleaning the patient room, and should have slowed down and paid attention.

There's an opportunity to learn why the needle found its way to the floor in the first place. Again the story could be traced back to deeper causes for a more lasting solution that would serve the safety of more people.



COMPRESSED GAS REGULATOR SAFETY

Any gas mix containing more than 20% oxygen has the potential to cause fires and explosions in materials that aren't normally considered flammable or dangerous. Under the high-pressure conditions inside a regulator assembly, any organic materials present, such as plastic, rubber, or other petroleum-based products can combust, even Teflon!



Once a fire starts, it can become extremely hot and the metal can heat enough to become a fuel. ALWAYS use a regulator approved for oxygen use, preferably a lab

-grade model with a stainless steel diaphragm.

The image above shows a busted regulator which was on the wrong compressed gas tank for 5 years. Needless to say, the researcher who changed out the tank was surprised and lucky to walk away.

Be sure to check with your vendor to be sure you're using the right regulator. Research Stores can also provide guidance. They can be contacted via:

<http://logicprod/researchstores/default.aspx>



For a current issue of SAFETYNEWS online, and for archives, visit:

<http://www.ohsu.edu/xd/about/services/integrity/ehrs/safety/gen/safetynews.cfm>

The SAFETYTEAM page is available at:

<http://www.ohsu.edu/xd/about/services/integrity/ehrs/safety/gen/safetyteam.cfm>

These pages are updated regularly. Send suggestions to the SafetyTeam Coordinator at:

safeteam@ohsu.edu

**Questions? Contact
Environmental Health &
Radiation Safety:
503-494-7795**

