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Environmental Health and Safety #717  
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## WELCOME NEW OEHS EMPLOYEES

**Seth Heller** has come to UCSF by way of USF (one letter difference, worlds apart). USF is also his alma mater. He received a BS in Biology with a minor in Chemistry and he loved school so much that he decided to stick around to get a Masters of Science in Environmental Management. Seth wrote a Master's thesis on *Acanthamoeba* infection as a result of eyewash usage. At USF Seth was one of three people responsible for all EHS operations around the campus, so he has worn many hats.

Seth will be the DSA for the School of Dentistry, the Department of Anatomy, the Department of Pediatrics, and a few ancillary locations.

He really enjoys cooking, fishing, and camping. When he is not at work he enjoys being in front of a stove or on a boat. He and his dog Mingus enjoy playing their own version of wall ball. Recently, he has also been busy planning his wedding for early May in Mendocino.

**Leslie Hofherr** We welcome Leslie Hofherr, as the new UCSF Biosafety Officer. She previously worked as the laboratory and biosafety officer at UCLA for 13 years. Leslie graduated from Iowa State University with a BS and MS in Bacteriology and Food Technology. She conducted research projects involving Swiss cheese starter cultures, swarming behavior of *Proteus mirabilis* and the isolation of enterotoxin-producing *E. coli* from cheese, among others.

While working in various labs, Leslie became interested in safety and public health. She went back to school at night and held various day jobs such as setting fly traps for San Diego County and restaurant inspector. Eventually she graduated with an MPH from San Diego State University and was hired shortly afterward by UCLA to start their laboratory safety program.

She is looking forward to meeting and working with the faculty and staff at UCSF.



# SAFETY UPDATE NEWSLETTER

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO  
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY

UCSF RESEARCH NEWS

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## SHOWERS AND EYEWASHES

If you spilled a corrosive chemical on your skin, or splashed it in your eyes, would you know what to do? Do you know the location of the nearest emergency shower and eyewash, and how to use them properly?

### THE IMPORTANCE OF ACTING QUICKLY

When a corrosive chemical comes in contact with your eyes or skin, tissue damage begins immediately. The rate and extent of the damage depends on the specific chemical involved, and you must take immediate action to halt the damage. Right away, you need to flush or irrigate the affected area with large amounts of water for 15 minutes!



Well-designed, easily accessible emergency showers and eyewashes facilitate this process. The lab designers and plumbers that install these systems make sure that they are easy to access and use.

In an emergency situation, there is no time to worry about

the clutter of equipment blocking a shower. Every second is critical to limit the severity of the chemical reaction with the skin. It is imperative to ensure that safety equipment is accessible and easy to use at all times.

### SAFETY SHOWERS AND EYEWASHES BY DESIGN

An emergency shower is designed to provide a sufficient source of clean water to cover your whole body, providing as much water to the surface of the skin as possible. Clothing inhibits this contact, so disrobing will increase the efficiency of the shower.

Emergency eyewash stations should provide a controlled, uninterrupted flow of flushing fluid to both your eyes for at least 15 minutes. To ensure maximum efficiency, you must be able to easily activate the eyewash, and it must remain ON without the use of your hands.

Know how to properly use both the shower and the eyewash. If you are unsure how to operate this equipment contact your Department Safety Advisor, and they can arrange a demonstration.

It is crucial that you are familiar with the MSDS for every material you use, so that you know how to behave if there is an incident. If your body is exposed to any chemical remove clothing, and flush the affected skin areas directly! If

(Continued on page 2, see Showers)

## CONTAMINATION CONTROL

Laboratory personnel often use Personal Protective Equipment such as gloves, lab coats, and shoe covers to protect themselves from various hazards encountered within the laboratory. It is important that all lab workers be mindful of controlling cross contamination in order to protect both themselves, and their work. Chemical, Radiological, and Biological hazards may be found on Personal Protective Equipment during or after an experiment. Taking steps to actively avoid touching your skin, face, or hair with your Personal Protective Equipment is important for your personal safety.

Although at the very basis of good science, controlling cross contamination is also important outside of the laboratory. Common areas, by default, should remain free of any contamination generated within the laboratory. The following actions are all things that you can do to help ensure our common areas, such as hallways, bathrooms, and elevators remain clean:

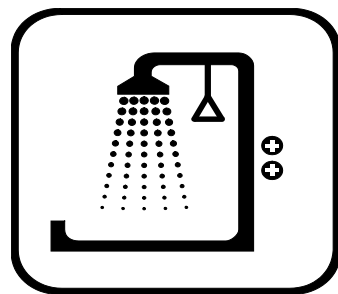
- Remove your lab coats, gloves, and shoe covers before leaving a controlled area.
- Secure chemical, radiological, or biological samples in a non-breakable secondary containment before transporting within common use areas.
- Wash hands before exiting the laboratory.
- Report spills immediately to the Emergency Response Team.

(Continued on page 2, see Contamination)

(Showers continued)

your eyes are involved, keep your eyelids open and let the fluid flush your eyeballs directly. Periodically use your hands to hold your eyelids open and flush beneath your eyelids. This is an unnatural sensation, the body's automatic response keep the eye closed when any foreign substance enters the eye. In an emergency like this, other lab members, if present, can help. You should flush any contaminated area for at least 15 minutes. When the irritation ceases go, or have someone take you, to Emergency Department as soon as possible.

The open area must be at least 60 inches in diameter. Electrical equipment must be sufficiently far away so that it does not get wet if the shower is operated.



### LET'S REVIEW

Drench hoses located at sinks are common and can be used to supplement an eyewash but not as an eyewash substitute.

There are a few simple things you can do to when working in a lab to prohibit damage to the skin and eyes;

### REGULATIONS: MEETING STANDARDS FOR PROPER USE

Where showers and eyewashes are required, Cal-OSHA mandates they be located such that they can be reached within ten seconds or less. Cal-OSHA also requires eyewashes and showers at all work areas where "during routine operations or foreseeable emergencies, the skin and eyes of an employee may come in contact with a substance which can cause corrosion, severe irritation, or permanent eye damage, or which is toxic by absorption".

- Know the location of the nearest emergency eyewash and shower.
- Make sure you know how to properly use the eyewash and shower; how to activate them and how to properly flush the corrosive material from your skin and eyes.
- Be familiar with the MSDS of all chemicals you use, paying special attention to the emergency response section.
- Treat every incident appropriately, even a "small" exposure can cause great damage
- Know the correct chain of events.

Emergency showers and eyewashes are installed at UCSF, following both the Cal-OSHA requirements and the ANSI standard. OEHS flushes showers and eyewashes monthly, and checks them annually for adequate flow rate. A designated individual in the laboratory should perform a weekly flush of eye washes to minimize microbial accumulation in the system. UCSF Facilities Management performs repairs or modifications on the equipment as needed. All individuals in the laboratory must cooperate to maintain clear access to the shower and eyewashes. Aisle ways should be clear, and the area around the station must not be used for storage.

We hope that your never need to use your emergency shower or eyewash, but if you do, knowing how to use them may save you from serious harm. ≈

(Contamination continued)

Gloves and shoe covers are not allowed in the cafeterias. Wearing Personal Protective Equipment in the elevators and bathrooms is also strongly discouraged.

With a little awareness and common courtesy, we can all work to ensure that our common usage areas remain clean. ≈

## EMPTY CONTAINERS

Laboratory people often ask OEHS representatives whether empty containers are hazardous or not. The answer depends on factors such as hazard characteristics of the contents, residue remaining, and the size of the container.

First, let us establish the definition of "empty". A liquid chemical container is "empty" if there are no visible drops when the container is fully up-ended. A solid container is "empty" if there is no solid material remaining that can feasibly be removed. A thin layer of dried material in the interior surface of the container is acceptable.

If the container is empty **but** formerly contained an extremely hazardous material such as acrolein, arsenic, hydrochloric acid, osmium tetroxide, potassium cyanide, etc. the container **is** considered hazardous material and must be disposed through OEHS. A list of extremely hazardous materials is available from OEHS.

If the container is empty **but** is 5 gallons or greater, it **is** hazardous material and must be disposed of through OEHS.

If the size of the container and its contents do not fit either of these categories and the container is empty then it is disposed of as regular trash or may be recycled in an approved UCSF glass-recycling receptacle. Please deface the original label prior to disposal.

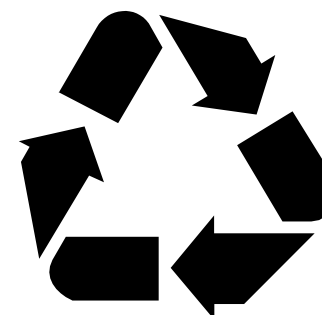
Please note that disposal of hazardous waste into sinks, intentional evaporation, or as regular trash is against the law. Campus laboratories must abide by strict state and federal waste disposal requirements. Your lab may be held liable for violations of applicable laws.

Please contact your DSA for more information. ≈

Wednesday  
**May 4**  
Parnassus Campus

Friday  
**May 6**  
Laurel Heights &  
Mission Center Building

INFORMAYION  
UCSF Recycling Program  
502-6808  
recycling@fm.ucsf.edu



Sponsored through a grant from Dell INC

Arranged by the UCSF Recycling Program of the Capital Projects & Facilities Management Department  
With support from UCSF's Campus Life Services and EH&S Departments

Recycling services provided by the Computer Recycling Center

PLEASE HAVE ALL PERSONNEL IN YOUR LAB INITIAL HERE AS EVIDENCE OF CONTINUING EDUCATION & KEEP THIS NEWSLETTER IN YOUR LOGBOOK.

## COMPUTER TAKE BACK EVENT

### WHY COMPUTER RECYCLING?

Computers have cathode ray tubes full of lead, mercury, chromium, cadmium and zinc. When these products are incinerated or landfilled, they can release these heavy metals and contaminate groundwater and pollute the air.

The volume of e-waste is enormous! The electronics industry is the largest and fastest growing manufacturing industry in the world.

Improper disposal of electronic equipment poses a significant threat to public health and the environment. There is also concern about the export of e-waste to developing countries that are less equipped to properly handle hazardous components.

To prevent this contamination, UCSF is hosting the Computer Take Back Event to offer the campus community a one time opportunity to safely discard of your old computers. Future computer recycling at UCSF is now in the planning process.

### COMPUTER RECYCLING INFORMATION

- Computer Recycling Center [www.crc.org](http://www.crc.org)
- Health Care Without Harm [www.hcwh.org](http://www.hcwh.org)
- Silicon Valley Toxics Coalition [www.svtc.org](http://www.svtc.org)

### RECYCLING AT HOME

- Alameda** (510) 614-1699  
<http://www.stopwaste.org>
- Contra Costa** (800) 750-4096  
[www.co.contra-costa.ca.us/depart/cd/recycle.htm](http://www.co.contra-costa.ca.us/depart/cd/recycle.htm)
- Marin** (415) 499-6647  
[www.co.marin.ca.us/depts/pw/main/pw/wastemanagement.cfm](http://www.co.marin.ca.us/depts/pw/main/pw/wastemanagement.cfm)
- Napa** (707) 257-9292  
[www.cityofnapa.org/recycle/recycle.htm](http://www.cityofnapa.org/recycle/recycle.htm)
- San Francisco** (415) 554-7329  
[www.sfreycles.org](http://www.sfreycles.org)
- San Mateo** (888) 442-2666  
[www.recycleworks.org](http://www.recycleworks.org)
- Santa Clara** (800) 533-8414  
[www.sccgov.org](http://www.sccgov.org)
- Solano** (707) 421-6765  
[www.cityofnapa.org/recycle/recycle.htm](http://www.cityofnapa.org/recycle/recycle.htm)
- Sonoma** (707) 565-3375  
[www.recyclenow.org](http://www.recyclenow.org)