

HOME PAGE

Laboratory Safety Training and Resources

[Policies and Safety](#)

[Plans](#)

[Training](#)

[New Lab Personnel](#)

[Refresher Training](#)

[Visitors/ Volunteers/](#)

[Students](#)

[Standard Operating](#)

[Procedures \(SOPs\)](#)

[Safety Sheets and](#)

[Safety Nets](#)

Injuries and Incidents

Getting Help

[Injuries](#)

[Incidents/Spills](#)

[Injury/Incident](#)

[Reporting](#)

[Illness & Injury](#)

[Prevention and](#)

[Emergency Plans](#)

Contacts and FAQs

[Contact Information](#)

[FAQ](#)

Current News and Links

(news section)

LABORATORY SAFETY

Policies and Manuals Page

The Laboratory Safety Plan can be found on the [UCD School of Medicine Safety website](#)
[Laboratory Safety Manual](#)

Safety Policies:

[UCD Chemical and Laboratory Safety Policy](#)

[UCD Hazard Communication](#)

CalOSHA Safety and Protection on the Job ([link CalOSHA_SAFETY__ON_THE_JOB.pdf](#))

LABORATORY SAFETY

Training Page

Proper safety training is essential for all laboratory workers or people who routinely enter the laboratory.

Training can be in-person from designated laboratory trainers or the PI, or by taking classes. Some training classes are only available online through the [UC Wide Learning Management System](#) (LMS, LMS.ucdavis.edu) using your UCD Kerberos login and password

If new personnel do not have a UCD Kerberos login/password (e.g. visiting faculty, concurrent students, volunteers, vendors, and other non-UC Davis affiliates), they must complete a [Temporary Affiliate Form](#) (TAF) to obtain a Login ID before they will be able to sign up for training. The TAF form must be initiated and approved by an affiliated UCD department. Visiting scholars or volunteers must obtain Temporary Affiliate Status prior to class enrollment. TAFs and non-paid students must contact Staff Development and Professional Services (sdps@ucdavis.edu) to enroll in classes in the LMS - i.e., any classes that direct you to: LMS.udavis.edu

Templates for some of the required lab-specific training documents can be found in the Training Section (Section 7) of the [UCD SOM Safety website](#)

LABORATORY SAFETY

Training Page > New Laboratory Personnel

To determine the minimal training needed for anyone who will be actively doing benchwork in the laboratory, two documents are suggested.

[SOM Training Requirement Document](#) or here (link to [7.00_UCD-UCDH_Training-Requirements-08032020.pdf](#))

UCD Lab Training Matrix (link to [Lab Training Matrix FINAL.pdf](#))

Required lab/location-specific in-person training by the PI or a Designated Trainer

[Site-Specific Safety Orientation & Training Checklist](#) for New Laboratory Personnel – review with trainer and sign

Shriners Injury Illness and Prevention Plan – read and sign

Shriners Emergency Action and Evacuation Plan – read and sign

Lab Safety Plan (lab-specific and includes Biosafety, Chemical Hygiene, and Bloodborne Pathogens) – read and sign

SOP: Working Alone – read and sign

Any other laboratory SOPs specific to the position – read and sign

Required online training (see the [Training Page](#) for access information)

[UC Laboratory Safety Fundamentals](#) course
[Laboratory Hazard and PPE Assessment](#) tool
[Hazardous Waste Management and Minimization](#)

Optional training (see the [Training Page](#) for access information)

The specific classes needed is dependent on the position and will be determined by the PI/Lab Manager. All training, whether in person or online, must be documented. Some examples of [online classes](#) are:

Animal Care and Use 101	Hazardous Material Handling and Storage
Proper Handling of Materials at Biosafety Level 1	Hazard Communication
UC Davis Biosafety Level 2	Controlled Substances
UC Davis Bloodborne Pathogens	Cryogen Safety
Safe Use of Biological Safety Cabinets	Laser Safety
Fume Hood Training	Radiation Safety

LABORATORY SAFETY

[Training Page](#) > **Refresher Training**

Required lab/location-specific in-person training by the PI or a Designated Trainer

Annual Refresher Training (link to [7.2_Annual_Safety_Training_Summary-11122020.pdf](#))

Shriners Injury Illness and Prevention Plan – read and sign (annually)

Shriners Emergency Action and Evacuation Plan – read and sign (annually)

Lab Safety (lab-specific and includes Biosafety, Chemical Hygiene, and Bloodborne Pathogens) Plan – read and sign (annually)

SOP: Working Alone – review (re-sign if revised)

Any revised laboratory SOPs specific to the position – read and sign (as needed)

Required online training (an email reminder is usually sent automatically)

[UC Laboratory Safety Refresher](#) course (every three years)

[Laboratory Hazard Assessment tool](#) (annually)

Optional training

Email reminders for online classes are sent automatically

LABORATORY SAFETY

[Training Page](#) > **Visitor, Student, Volunteer Training**

Documented training is required for people not actively involved in laboratory benchwork but who routinely enter the lab or have a workspace within the laboratory.

Required lab/location-specific in-person training by the PI or a Designated Trainer

Shriners Injury Illness and Prevention Plan – read and sign

Shriners Emergency Action and Evacuation Plan – read and sign

Lab Safety Plan (lab-specific and includes Biosafety, Chemical Hygiene, and Bloodborne Pathogens) – read and sign

SOP: Working Alone – read and sign

Required online training (see the [Training Page](#) for access information)

[UC Laboratory Safety for Support Personnel](#)
[Laboratory Hazard and PPE Assessment tool](#)

LABORATORY SAFETY

SOPs Page

Any work with hazardous chemicals requires a Standard Operating Procedure (SOP). This CalOSHA requirement is stated in 8 CCR §5191 (Occupational Exposure to Hazardous Chemicals in Laboratories, "Laboratory Standard") under the provisions of the Chemical Hygiene Plan.

The [minimal requirements for an SOP](#) can be found at the UCD Safety Services website and from this document (link to [SOP_CampusRequirements-2020.pdf](#)).

Required SOPs:

- Acutely Toxic Gases
- Acutely Toxic Solids and Liquids
- Carcinogens
- Listed Carcinogens
- Corrosives
- Engineered Nanomaterials
- Flammable Liquids
- Flammable Solids
- Potentially Explosive Compounds
- Pyrophorics
- Reproductive Toxins
- Water Reactives
- Aqua Regia solutions
- Hydrofluoric Acid
- Piranha solutions
- Lasers
- Unattended Operations
- Working Alone

Recommended SOPs:

- Cryogens
- Lachrymators
- Oxidizing Materials
- Sensitizers
- Phenol
- Sodium azide
- Compressed and/or Flammable Gases
- Furnaces
- Dimethyl sulfoxide (DMSO)
- Flame Sterilization
- Flammable Gases
- Formaldehyde
- Glacial acetic acid
- Hydrogen peroxide
- High/Low Pressure Activities
- Methylene Chloride
- Nitric acid
- Perchloric acid
- Picric acid
- Strong Magnetic Fields
- Vivarium Hazardous Chemical Use

LABORATORY SAFETY

Safety Data Sheets and SafetyNets Page

Safety Data Sheets (SDS)

Safety data sheets are required for each hazardous substance used or stored in the laboratory. Chemicals will often have a Globally Harmonized System (GHS) pictograms (link to [GHS pictogram pdf](#)) that will illustrate specific hazards associated with that substance.

Understanding an SDS

Access to an SDS

Paper copies in the laboratory

Online sources

Call Shriners SDS system: 888-362-7416 (orange stickers on phones)

INJURIES AND INCIDENTS

Getting Help > Injuries

**Call 911
and
dial 55 from a Shriners phone
for any SERIOUS situation that threatens life, health, property,
the environment, or any explosion or over pressurization of a
vessel (no matter the vessel size)**

**For LIFE-THREATENING or SERIOUS INJURIES,
call 911
and
dial 55 from a Shriners phone**

Get help from people around you!

If you call 911, you **must** also call the Shriners Main Desk (**dial 55** on a Shriners phone) to alert them of:

The type of emergency and description of symptoms

Your room number/location

The expected arrival of emergency personnel (to be met by Security/lab personnel and escorted to the 6th floor)

Shriners security can contact the **HOUSE SUPERVISOR** (Pager: 916-523-9311) to triage the situation until emergency help arrives or until the injured person can safely reach an emergency facility.

Closest Emergency Facility
UCDMC EMERGENCY ROOM

916-734-3183

2315 Stockton Blvd. (follow signs to ER)

Sacramento, CA 95817

As soon as you can, contact your Lab Manager/PI and Shriners research administration.

SERIOUS injuries must be reported within 8 hours of the incident

For paid employees, serious occupational injuries, illnesses, or exposures must be reported to Cal/OSHA by either a UCD EH&S representative (UCD paid employees) or by Shriners HR/the Administrator-on-Call (Shriners paid employees) within eight hours after they have become known to the Lab Manager or PI.

Cal/OSHA defines "serious injury or illness" as any injury or illness occurring in a place of employment, or in connection with any employment, that requires inpatient hospitalization for a period in excess of 24 hours (other than medical observation or diagnostic testing), or in which an employee suffers an amputation, the loss of an eye, or any serious degree of permanent disfigurement.

All other injuries must be reported within 24 hours.

For MINOR INJURIES or EXPOSURES
Get help from people around you

DURING REGULAR WORK HOURS

Shriners Employee (receives a regular paycheck from Shriners):

Notify the PI/Lab Manager and Shriners research administration

If further medical help is needed, go to Shriners Employee Health

[Complete an incident report \(even if no additional medical help was needed\) within 24 hours](#)

UCD Employee (receives a regular paycheck from UCD): ([link UCDH Emergency-Numbers_07282020.pdf](#))

Notify the PI/Lab Manager and Shriners research administration

Fill out an incident report ([Employer's First Report Form/EFR](#)). The injured person should be accompanied by the PI or a lab representative to UCDH Employee Health if additional medical help is required. Take the EFR form (and any other information about the injury/exposure) to:

UCD Medical Center Employee Health

916-734-3572

Cypress Building

2221 Stockton Blvd., Suite A

Sacramento, CA 95817

(7AM – 3PM, M-F)

[Complete an incident report \(even if no additional medical help was needed\) within 24 hours](#)

Students, Volunteers, Visiting Faculty, Visitors (unpaid or paid by other than UCD or Shriners):

Notify the PI/Lab Manager and Shriners research administration

If necessary, Shriners Employee Health may triage the injury until the person can seek help from their personal health care provider of choice (Student health center, personal physician, etc.). The injured person should be accompanied by the PI or another person to the care facility.

[Complete an incident report \(even if no additional medical help was needed\) within 24 hours](#)

EVENINGS, WEEKENDS (after Work Hours, non-serious injuries)

Shriners Employee (receives a regular paycheck from Shriners):

Call the Front Desk (**dial 2000**) or contact the **HOUSE SUPERVISOR (Pager: 916-523-9311)**.

The HOUSE SUPERVISOR will provide first aid or authorize medical evaluation by the approved medical provider:

[US HealthWorks](#) 1675 Alhambra Boulevard, Suite B, Sacramento, CA (916-451-4580)

Monday – Friday 8am-5pm weekdays, and 8am-2pm on Saturday

[UCDMC Emergency Room](#) (916-734-3183) for Emergency Care only (or after US HealthWorks is closed or on the weekend)

Notify the PI/Lab Manager and Shriners research administration

[Complete an incident report \(even if no additional medical help was needed\) within 24 hours](#)

UCD Employee (receives a paycheck from UCD): ([link UCDH Emergency-Numbers_07282020.pdf](#))

Notify the PI/Lab Manager and Shriners research administration

Fill out an incident report ([Employer's First Report Form/EFR](#)). The injured person should be accompanied by the PI or another person to the care facility. Call the Urgent Care facility and take the EFR form (and any other information about the injury/exposure) to:

AFTER HOURS URGENT CARE

Mercy Medical Group

916-733-3377
3000 Q Street, Sacramento
3PM – 7PM, M-F
8AM – 4PM, Weekends

[Complete an incident report \(even if no additional medical help was needed\) within 24 hours](#)

Students, Volunteers, Visiting Faculty, Visitors (unpaid or paid by other than UCD or Shriners):

Notify the PI/Lab Manager and Shriners research administration

If necessary, Shriners Employee Health may triage the injury until the person can seek help from their personal health care provider (Student health center, personal physician, etc.). The injured person should be accompanied by the PI or another person to the care facility.

[Complete an incident report \(even if no additional medical help was needed\) within 24 hours](#)

INJURIES AND INCIDENTS

[Getting Help](#) > Spills or Incidents

**Call 911
and
dial 55 from a Shriners phone
for any SERIOUS situation that threatens life, health, property,
the environment, or any explosion or over pressurization of a
vessel (no matter the vessel size).**

[Get care for injured persons first.](#)

What type of incident is it?

[All incidents, either with or without injuries, need to be reported so we can determine ways to prevent future problems.](#)

Biological/Biohazardous Spill

Warn others in the vicinity of the spill immediately.

Assess the severity and the safety level of the spill before attempting to clean the spill.

Shriners Spill Response (link to **Lab Spill Safety pdf**)

[SafetyNet #127 - Biological and Biohazard Spill Response](#)

[SafetyNet #51 - Selecting Chemical Disinfectants](#)

Notify the PI/Lab Manager and the Shriners Safety Officer (916-453-5044)

During work hours, UCD Safety Services may provide advice: 530-752-1493

[Complete an incident report.](#)

Chemical Spill

Warn others in the vicinity of the spill immediately.

Assess the severity and the safety level of the spill before attempting to clean the spill.

Shriners Spill Response (link to **Lab Spill Safety pdf**)

[SafetyNet #13 - Guidelines for Chemical Spill Control](#)

Online [Chemical Safety Data Sheets \(SDS\)](#) or call (Shriners SDS) 888-362-7416

Notify the PI/Lab Manager and the Shriners Safety Officer (916-453-5044)

During work hours, UCD Safety Services may provide advice: 530-752-1493

[Complete an incident report.](#)

Physical or Environmental Hazards

Slips, Trips, or Falls
Equipment or Machinery Hazard
Lifting Incident
Fire or Electrical Incidents
Repetitive Strain incident

Entanglement hazards
Fires
Getting caught between, struck by or
against objects

Assess the situation. If possible, contain the hazard (e.g., turn off equipment, isolate the incident-causing object).

Notify the PI/Lab Manager and the Shriners Safety Officer (916-453-5044)

If necessary, call Shriners Engineering (dial 2070 on a Shriners phone) for assistance with mechanical or environmental issues.

[Complete an incident report.](#)

INJURIES AND INCIDENTS

Injury/Incident Reporting Page

SERIOUS injuries must be reported within 8 hours of the incident (Cal/OSHA)

Cal/OSHA defines "serious injury or illness" as any injury or illness occurring in a place of employment, or in connection with any employment, that requires inpatient hospitalization for other than medical observation or diagnostic testing, or in which an employee suffers an amputation, the loss of an eye, or any serious degree of permanent disfigurement.

All other injuries/incidents must be reported within 24 hours of the time of the incident

Keep copies of all reports

For Shriners Employees (receives a regular paycheck from Shriners Hospitals for Children)

For all injuries and incidents/spills

The injury should be reported to:

The Principal Investigator
Shriners Research Administration

Fill out the Shriners report form (link to **Shriners Report_interactive.pdf**). This form should be either emailed or handed in to Shriners Research Administration

Fill out the incident report (Appendix A: Hazard Alert/Correction Report) in the [Lab Safety Plan](#)

NOTE: You may be eligible for Workers' Compensation but the injury must be reported within 24 hours to the Workers' Compensation representative.

For UCD Employees (receives a regular paycheck from the University of California Davis)

For injuries

The injury should be reported to:

The Principal Investigator. The PI should then contact the UCD-affiliated department and UCD Safety Services (530-752-1493) as soon as possible.

Shriners Research Administration

Online reporting: [UCD Injury Reporting Procedure](#) (Employer's First Report form or EFR)

NOTE: If using a UCDHS computer, it may contain pre-loaded links on the desktop to the Employee Exposure or RL Incident Reporting systems. Do **NOT** use these reporting links – they are for incidents within the UCD Medical Center hospital.)

NOTE: Work-related injuries or illnesses must be reported to Workers' Compensation within 24 hours at **916-734-3362**. UCD paid employees must also complete the workers compensation claim form DWC1 and scan and email to Workers Compensation at: hs-workerscompergo@ou.ad3.ucdavis.edu.

[UCD Guidelines on Serious Injury Reporting](#)

Occupational Safety 916-734-2740

24-hour Claim Line 916-734-8789

Risk Management 916-734-3883

For ALL incidents/spills (with or without injuries)

[Any spill of recombinant DNA or infectious agents \(covered by a BUA\) must be reported as soon as possible to the Biological Safety Officer.](#)

Fill out the incident report (Appendix A: Hazard Alert/Correction Report) in the [Lab Safety Plan](#)

Copies of all reports should also be given to Shriners Research Administration

For Students, Visitors, Volunteers (does not receive a paycheck from Shriners or UCD)

For injuries or incidents/spills

The injury should be reported to:

The Principal Investigator

Shriners Research Administration

Fill out the Shriners report form (link to **Shriners Report_interactive.pdf**). This form should be either emailed or handed in to Shriners Research Administration

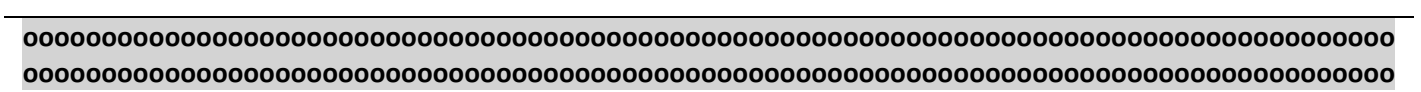
Fill out the incident report (Appendix A: Hazard Alert/Correction Report) in the [Lab Safety Plan](#)

INJURIES AND INCIDENTS

[IIPP and EAP Page](#)

[Injury Illness Prevention Plan \(IIPP\)](#)

[Emergency Action Plan](#)



CONTACTS and FAQ

Contact Information Page

Shriners Research Administration

Elsie Lodde

Office: 916-453-2227

Fax: 916-453-2288

elodde@shrinenet.org

Sherry Middleton

Office: 916-453-2354

Fax: 916-453-2288

smiddleton@shrinenet.org

Safety Staff Information

Shriners Safety Officer:

Linda Viscardi

Office: 916-453-5044

Cell: 916-202-4506

Fax: 916-453-2349

lviscardi@shrinenet.org

UCD School of Medicine Safety Officer, Sacramento Campus:

Elizabeth Ingham

2921 Stockton Blvd Suite 1400

Office: 916-734-2214

Cell: 916-947-9847

esingham@ucdavis.edu

UCD Safety Services

(530) 752-1493 phone

(530) 752-4527 fax

276 Hoagland Hall, One Shields Avenue, Davis, CA (UCD campus)

Shriners Resources

Front Desk (916) 453-2000

Security (916) 453-3000

Engineering (916) 453-2070

Emergencies: dial 55 from a Shriners phone

Compliance Hotline: 866-290-7637

UCD Resources

UC Davis School of Medicine Office of Research

CTSC Building, Suite 1400

2921 Stockton Blvd.

Sacramento, CA 95817

Staff Development and Professional Services (SDPS): sdps@ucdavis.edu or (530) 752-1766

UCD Animal Care (IACUC)

UC Davis Office of Compliance and Policy (reporting a concern)

UC Whistleblower Hotline: (800) 403-4744

Other Resources

[California Labor Codes and Regulations](#)

[CalOSHA](#)

CONTACTS and FAQ

[FAQ Page](#)

1. How often are inspections?

Annually

Biohazards/Medical Waste – Sacramento County Environmental Management Department

Biological Use Authorization (BUA) Audits - UCD

Fire Safety - local fire department

Lab Safety Reviews - UCD

Periodically

Chemical safety - Certified United Program Agency (CUPA) - Every 1-3 years

Lab Safety - Center for Disease Control/Food and Drug Administration/Department of Agriculture (CDC/FDA/USDA)

Animal care - Institutional Animal Care and Use Committee (IACUC) / Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) - Every 1-3 years

2. How do I deal with broken equipment or equipment to be discarded?

If broken, tag the equipment as broken and report to Research Administration.

If the equipment is to be discarded, it must be first decontaminated/decommissioned (see [SafetyNet #113 – Release of Equipment](#)). Contact either Shriners Research Administration or your UCD department for disposal. For UCD equipment, saleable items may be sent to [AggieSurplus](#) for resale.