

The graphic is a circular emblem. It features a dark green outer ring. Inside this is a white ring, and then a larger teal-colored circle. Overlaid on the teal circle is a stylized, light green silhouette of a person with their arms raised in a 'V' shape, suggesting a person standing with arms outstretched or a stylized plant. The text is centered over this graphic.

COLORADO STATE UNIVERSITY OCCUPATIONAL HEALTH PROGRAM MANUAL

Environmental Health Services:
Occupational Health Program

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CSU OCCUPATIONAL HEALTH PROGRAM BACKGROUND INFORMATION

The CSU Occupational Health Program is dedicated to ensuring the safety and welfare of its faculty, staff, and students, and aims to prevent occupational injury, illness, and exposure to hazards through programmatic elements detailed in this manual. This manual was developed by the CSU Occupational Health Program in cooperation with CSU's Environmental Health Services (EHS), Institutional Animal Care and Use Committee (IACUC), and Occupational Health Committee, and follows directives from the United States Health and Human Services Public Health Service policy. Guidelines described herein are modeled after those set forth in the Guide for the Care and Use of Laboratory Animals (Institute of Laboratory Animal Resources, National Research Council, 2011) and the Occupational Health and Safety in the Care and Use of Research Animals guidebook (Institute of Laboratory Animal Resources, National Research Council, 2003).

The Occupational Health Policy (6-6021-004, <https://policylibrary.colostate.edu/policy.aspx?id=700>) outlines requirements for the CSU Occupational Health Program. The Program is administrated under CSU's Environmental Health Services, with assistance from the Risk Management Program, IACUC Office, and Occupational Health Committee. Questions about the Occupational Health and Safety Program can be directed to the Occupational Health Program Administrator, at 970-491-3102.

The extent of participation in the program is dependent on hazards, degree of exposure, individual susceptibility, and history of occupational injury and illness at the workplace. Regardless of level of program participation, it is critical that everyone follows safe work practices, supervisors create an appropriate work environment, and individuals report unsafe working conditions.

PROGRAM GOALS

The overall goal of the CSU Occupational Health Program is to provide the safest and healthiest work environment possible through prevention of occupational injury, illness, and exposure. Toward this goal, CSU investigators, supervisors, EHS, and IACUC, will provide CSU employees with potential exposure to occupational hazards with:

- Guidelines for general health and safety issues.
- Hazard and Risk Assessment of work environment.
- Availability of medical services aimed at preventing occupational illnesses (e.g., medical evaluation, vaccinations, or serological testing).

PROGRAM PROCESSES

This manual is a summary of Occupational Health Program processes and procedures, and includes details regarding:

- Hazard and Risk Assessment
- Distribution of general safety information and completion of core training
- Enrollment for occupational medical services as relevant, including but not limited to:
 - Medical surveillance for work with animals, mycobacterium, or Tier 1 select agents.
 - Medical surveillance for respirator use.
 - Vaccination for tetanus, yellow fever, hepatitis, rabies.
- Enrollment in appropriate safety programs (e.g., Biosafety, Radiation Safety, etc.)
- Completion of site-specific training, and training in emergency procedures.
- Exposure control and incident response.

For a summary of core information, training, and medical services based on risk assessment, see [Appendix A](#).

DEFINITIONS

Covered Individual – A CSU employee (including, but not limited to, faculty, staff, graduate and undergraduate student employees, work-study students, paid post-doctoral fellows and residents, and CSU employees who perform CSU sponsored work at any location) and any other person who is or may be exposed to workplace hazards for which enrollment in the CSU Occupational Health Program is required. This includes individuals:

- Involved in animal research, care, and handling (including handling of animal fluids and/or unfixed tissues).
- With potential exposure to infectious and/or chemical agents.
- With potential human blood, body fluid, or tissue exposure.
- Who may reasonably anticipate potential exposure to bloodborne pathogens during the performance of regular duties (e.g., cleanup of blood or human body fluids).
- Whose job duties require the use of respiratory protection.
- Who work in places with potential exposure to hazardous chemicals, radiation, and/or noise levels exceeding permissible limits.

Hazard – The potential for harm associated with an activity or condition (e.g., working with a particular animal, material, equipment, process, procedure, or system).

Risk – The probability that a person will be harmed or experience adverse health effects from exposure to a hazard.

Risk Assessment – The process of hazard identification, analysis of the associated risks, and determination of methods and precautions to eliminate or control the hazard and mitigate risk.

Fever – An increase of 2 degrees above normal body temperature. This is specific to the individual - know your baseline temperature.

Major Injuries – The interpretation of this term is circumstantial and dependent upon the perspective of the injured party. Major injuries could include, BUT ARE NOT LIMITED to: Any life-threatening condition, severe bleeding or burns; head trauma; any injury leading to loss of consciousness; amputation; sudden loss of or blurred vision; difficulty breathing; sudden swelling; or acute illness or loss of consciousness arising from exposure to or absorption of any substance (by inhalation, ingestion, or absorption through the skin). If injury is life threatening, individual must go to the nearest Emergency Room.

Pathogens – Organisms that cause diseases.

GENERAL RESPONSIBILITIES

ORGANIZATIONAL UNITS:

The administrative head of each college, department, or other organizational unit has the primary responsibility for identifying personnel who need to be enrolled in the Occupational Health Program, and ensuring such individuals comply with all Occupational Health Program requirements, including completion of an online annual Risk Assessment.

PRINCIPAL INVESTIGATORS/SUPERVISORS:

Principal investigators and/or supervisors are responsible for ensuring that all Individuals working under their supervision:

- Are trained on and understand safe and proper work procedures, hazards involved, and how to avoid or mitigate hazards.
- Participate in and comply with all Occupational Health Program requirements.

ENVIRONMENTAL HEALTH SERVICES (EHS):

EHS serves as a resource for assistance with training, risk assessment, and technical consult for the CSU Campus. As such, EHS is responsible for day-to-day operations; implementing, administering, and monitoring compliance with the Occupational Health Program; and conducting regular Programmatic review and development. EHS is also responsible for ensuring that the Occupational Health Committee is informed of non-routine events or deficiencies.

OCCUPATIONAL HEALTH COMMITTEE:

The CSU Occupational Health Committee supports the Occupational Health Program by developing recommendations for program requirements, policies, and guidelines. The Committee is appointed by the Vice President for Research (VPR) in conjunction with the Vice President for University Operations (VPUO) and membership includes representatives from CSU and Occupational Health care providers. For a list of committee members and representative areas, see [Appendix B](#).

COVERED INDIVIDUALS:

Participation in the Occupational Health Program is required of all Covered Individuals per the CSU Occupational Health Policy and is required or encouraged by several funding, accreditation, and regulatory mandates and agencies including the Public Health Safety policy, Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC, www.aaalac.org), Institutional Biosafety Committee (IBC), Institutional Animal Care and Use Committee (IACUC), American Biological Safety Association (ABSA, www.absa.org), Office of Laboratory Animal Welfare (OLAW), and Occupational Safety and Health Administration (OSHA, www.osha.gov).

Covered Individuals shall follow all prescribed safety measures, including adherence to safe work practices and established safety protocols, and appropriate use of personal protective equipment (PPE). These individuals may also be required to complete program elements such as training, questionnaires, and medical evaluation or surveillance. Medical surveillance programs may be required for animal, biological, chemical, noise exposures and respirator use.

VOLUNTEERS AND VISITORS:

Volunteers and visitors should be apprised of health and safety hazards by the appropriate contact person at the site visited and must submit documentation of training and medical clearance status as requested by CSU Occupational Health.

INSTRUCTORS:

Instructors of classes using animals or other biological, chemical, and/or physical hazards should provide students with:

- Specific information about relative hazards and how to reduce the risk of injury, illness, or exposure.
- Information about required Person Protective Equipment (PPE) and hygiene.

PRINCIPAL ELEMENTS OF AN OCCUPATIONAL HEALTH PROGRAM

The following essential components of an occupational health program are described in more detail in the next section. Click on the links below to be automatically directed to each topic:

- [Hazard Identification and Risk Assessment](#): Identification of workplace hazards and determination of consequences of exposure.
- [Engineering Controls](#): Physical changes to a work area or process that either remove hazards or isolate workers from them.
- [Facility Design, Operations, and Monitoring](#): CSU facilities are designed, operated, and monitored to reduce safety hazards associated with building occupancy and use.

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- **Training**: Education and instruction utilized to reduce exposures by assuring awareness of workplace hazards and proficiency in operational and emergency procedures.
- **Safe Work Practices and Administrative Controls**: Written protocols and procedures, established work practices, and standard precautions used to reduce the duration, frequency, or intensity of exposure to workplace hazards.
- **Personal Protective Equipment and Personal Hygiene**: Specialized clothing or equipment worn to protect against health or safety hazards (e.g., gloves, masks, face shields, respirators, head covers, coats, coveralls, shoe covers, earmuffs, etc.).
- **Occupational Medicine**: Branch of medicine focused on the prevention and treatment of work-related injury and illness, including the monitoring and evaluation for early detection and prevention of occupational disease, and identification of conditions that may increase risk of occupational disease.
- **Exposure Control Methods and Procedures**: Methods and procedures used to reduce or eliminate the risk of exposure.
- **Emergency Procedures, Incident Response, and Reporting**: Procedures for exposures, emergencies, and reporting of work-related incidents, illnesses, and injuries.

DESCRIPTIONS: INDIVIDUAL PROGRAM ELEMENTS

HAZARD IDENTIFICATION AND RISK ASSESSMENT:

Hazard Identification and Risk Assessment is a dynamic, ongoing process that involves relevant CSU supervisors, departments, employees, and committees:

- The Institutional Animal Care and Use Committee (IACUC) reviews and approves all protocols involving the care and use of animals.
- Protocols involving the use of biological or radiological agents require pre-approval from the Institutional Biosafety Committee (IBC) or Radiation Safety Office (RSO), respectively.
- The CSU Biosafety Office Works with the IBC and the CSU research community to develop and implement appropriate biosafety practices.
- EHS oversees several CSU safety programs, and assists with evaluation and oversight of protocols or activities as needed or required.
- Direct supervisors and Principal Investigators have the primary responsibility for hazard identification and mitigation of risks.
- Individual Departmental Units have designated safety processes.

Mechanisms for prevention, including participation in specific programs and training will be determined by the assessment of potential risks related to individual job duties at the University. Workplace hazards at CSU fall into 3 broad categories: Biological, Physical, and Chemical. The following outlines the categories and potential hazards that may be present, as well as relevant safety programs for reducing the risk of injury or illness due to these hazards.

POTENTIAL HAZARDS, RISKS AND ASSOCIATED PROGRAMS

*CSU PROGRAMS FOR CONTROL/PREVENTION OF BIOLOGICAL HAZARDS Referenced in specific hazard tables below	
1	The CSU Biosafety Office is the primary point of contact for safety related to biological hazards.
2	Animal Exposure Surveillance for all personnel in contact with animals, their unfixed tissues, fluids, wastes, equipment used in caring for animals or frequent entry into an animal facility to determine their likelihood of occupational-induced or laboratory-acquired animal allergy or illnesses.
3	Respiratory Protection Program : Every CSU employee who wears a respirator must participate in the Respiratory Protection Program as outlined in the written Respiratory Protection Program Plan (http://www.ehs.colostate.edu/DV2.aspx?ID=462).
4	CSU Bloodborne Pathogen Exposure Control Plan : Applies to all staff potentially exposed to human bodily fluids and is managed through the Occupational Health Program. Training and Hepatitis B Vaccinations are offered to all persons performing job duties whereby potential exposure to bloodborne pathogens could be reasonably anticipated.
5	Risk Management/Ergonomics Program : The goal of CSU's Risk Management and Ergonomics Program is to prevent pain and suffering associated with physical and ergonomic-related injuries. This is done through evaluations of workstations and work practices, and the implementation of ergonomic control strategies.
6	Safety and Industrial Hygiene Program: This Program exists to safeguard the lives, health, and safety of students, staff, and the public, in addition to protecting university property and the environment. Program elements include health and safety inspections; chemical fume hood inspection and certification; asbestos and lead management, spill prevention control and countermeasure planning, University trades/construction safety and hygiene. Specific program contacts, information, and requirements can be found by contacting: Eric.March@colostate.edu
7	Radiation Control Program : The Radiation Control Office provides technical assistance for the use of radioisotopes and radiation producing machines at Colorado State University. This office traditionally provides training for the safe use of radiation and regulates all inventories of radioactive materials on campus. The University provides this service in compliance with the State of Colorado's Rules and Regulations Pertaining to Radiation Control.
8	Noise Exposure Control Program: Applies to all Covered Individuals exposed to noise above 85dB TWA or 50% dose. This surveillance is required as part of the CSU Hearing Protection program.
9	Laser Safety Program : Emphasizes the health and welfare of all faculty, staff and students associated with the use of lasers.
10	Chemical Management Office and Hazardous Waste Division (CMO-Haz) : This Program is dedicated to ensuring proper management and disposal of all hazardous wastes generated by research, teaching and facilities operations at Colorado State University (CSU). CMO-Haz allows CSU to meet its compliance obligations concerning federal, state, and local regulations pertaining to the management of chemical hazardous waste.

Biological Hazards, Risks, and Associated Programs			
Type of Hazard	Examples	Risk	CSU Program, Pending Risk*
Infectious agents, substances produced by infectious agents, recombinant DNA, or synthetic molecules that could pose a threat to human health	Bacteria, fungi, parasites, protozoa, rickettsia, viruses, prions	Infection, illness	1, 3
Biological toxins	Poisons and venoms	Agents capable of causing illness and/or death	1, 3
Contaminated sharps	Needles, scalpels, glass contaminated with infectious agents, or animal or human materials	Infection, illness	1, 3
Allergens	Exposure to animal allergens (urine, contaminated litter, dander, hair); sensitizing chemicals; latex	Animal, chemical, latex allergies; asthma	2, 3
Animal Care/Husbandry	Cleaning bedding, cages	Exposure to contaminated bedding and waste	2, 3
Human blood, or other potentially infectious materials	Human blood, cerebrospinal fluid, sexual secretions	Infection, illness	4

Physical Hazards, Risks, and Associated Programs			
Type of Hazard	Examples	Risk	CSU Program, Pending Risk*
Animal Work	Bites, sprains, scratches, sharps, lasers, machinery, slips, falls	Physical injury	2, 3, 5
Ergonomic hazards	Heavy lifting, repetitive motion, body mechanics, posture	Physical injury, inability to perform job duties	5
Lasers	Lasers	Eye damage and personal injury	9
Noise	Working in a loud environment with machinery and/or animal noise	Hearing damage, loss of concentration, distraction	8
Pressure Vessels	Compressed Gas Cylinders, high pressure washing equipment	Risk of explosion and personal injury	

Machinery	Excessive noise; dangerous equipment	Hearing damage, physical injury	
Sharps	Broken Glass	Physical injury	1
Ultraviolet (UV) light	Germicidal lamps, outdoor work	Can damage eyes and skin	7
Radiation	Using radioisotopes in research, X rays, gamma rays	Exposure to radiation	7, 9
Electricity	Electrical hazards are present wherever electric current is present; absence of plate on wall socket; frayed or exposed wires	Electric shocks, burns	
Wet floors	Mopping floors and cleaning labs or animal housing facilities	Slipping and falling	
Heavy items	Lifting feed bags, caging, equipment, etc.	Lifting injuries	5
Steam/hot water	Used for sterilization and sanitation	Severe thermal burns	

Chemical Hazards, Risks, and Associated CSU Program			
Type of Hazard	Examples	Risk	CSU Program, Pending Risk*
Hazardous chemicals	Detergents, acids, bases, alcohols, cleaning products, flammables	Burns; skin, respiratory, and mucosal irritation; ingestion; toxicity	3, 6, 10
Carcinogens, mutagens, teratogens	Cancer-causing agents	Genetic mutation; disruption of normal cellular development in an embryo or fetus	3, 6, 10
Flammable materials	Chemicals, bedding, paper towels and gowns	Burns, property damage	3, 6, 10
Pharmaceuticals	Anesthetics, antibiotics, analgesics, tranquilizing agents, test drugs	Can be toxic	3, 6, 10

<u>Risk Factors for Certain Populations</u>		
Type of Personnel	Risk(s)	Caused by
Individuals who are pregnant or planning to become pregnant.	Threat to fetus	Exposure to cat feces (toxoplasmosis), sheep and goats (Q fever), hazardous chemicals
Individuals with chronic or pre-existing conditions (e.g., asthma, allergies, serious disease of liver, kidney, or spleen; immune system deficiencies; steroid, radiation, or chemotherapy patients; heart valve disease)	Worsening of pre-existing condition; further illness or complications	Exposure to animal skin, dander, fur, urine, etc.; exposure to Q fever or other agents that can cause disease; dust; hazardous chemicals

RISK ASSESSMENT

Every effort should be made to minimize workplace related risks through careful identification of hazards.

Each Covered Individual, with assistance from their supervisor if needed, is required to fill out an Occupational Health Risk Assessment (<http://www.ehs.colostate.edu/WOHSP/Home.aspx>), which includes consideration of animal allergens, infectious agents, chemical agents, noise, radiation, immunizations, and physical hazards. A risk assessment review process will identify the individual's risks and the protective measures that should be taken to address them, thereby determining the level of participation in the Occupational Health Program. Based on this determination, individuals may be required to complete program elements such as training, questionnaires, and medical evaluations/surveillance.

Immunizations may be available to people in certain risk categories.

Risk Assessments must be updated annually, and whenever job requirements/duties change.

For each task or project conducted in a lab or facility, everyone involved (PIs, departments, supervisors, employees) must work to identify and consider the associated hazards and risks. PI's, departments, and supervisors must discuss all identified hazards and risks with each position they supervise, as well as available preventative measures or actions (e.g., training, medical evaluations/surveillance, immunizations, PPE, etc.).

ENGINEERING CONTROLS

Engineering controls reduce risk to personnel by removing or limiting exposure to hazards. If a hazard cannot be eliminated from the workplace or substituted for a lesser hazard, engineering controls are considered the "first line of defense" for reducing exposure. Examples of engineering controls include biological safety cabinets, fume hoods, directional air flow, correct air pressure differential, hydraulic lifts, dollies, appropriate floor surfaces and lighting, and

noise control.

Engineering controls must be used when deemed necessary, can only be used as designed, and cannot be modified without appropriate testing to indicate adequate protection.

FACILITY DESIGN, OPERATIONS, AND MONITORING

The [EHS Building Health and Safety Program](#) strives to provide a safe environment in CSU buildings for all individuals. This program provides resources for individuals seeking information regarding building inspections, emergency plans, and other building safety issues.

Building design and safety features at CSU are based on level of risk and are used as needed to protect building occupants from exposure to hazards. To provide ongoing hazard and risk assessment, as well as assessment of the adequacy of control measures, routine facility inspections and safety audits are performed by various CSU entities and include IACUC, Chemical Management Unit, and EHS Building Health and Safety.

TRAINING

The extent of an individual's training will be determined by an assessment of potential risks within their position/working environment at the University.

Every employee must be trained on and understand potential hazards and appropriate safety precautions before beginning work. After training, employees must:

- Know the location and how to use emergency equipment available to them in their workplace, including safety showers and eyewash stations.
- Know the types of PPE available and how to use them for each procedure.
- Be alert to unsafe conditions and actions and bring them to the attention of supervisors for corrective action.
- Be familiar with emergency response procedures, facility alarms, and building evacuation rules for their work areas.
- Be prepared for chemical, radiological, or biological spills by knowing:
 - Hazards of chemical, radiological, or biological agents worked with.
 - Specific response procedures and appropriate protective equipment.

Environmental Health Services: EHS serves as a resource to assist principal investigators, supervisors, and departments in developing training related to specific workplace hazards, and provides core information and training resources that outline general health and safety issues at CSU.

Core training resources serve to:

- Standardize and document basic information given to employees about relevant workplace risks.
- Ensure basic awareness.
- Form the foundation for further site-specific training as needed.

Core training does not supersede the need for site specific training. For a summary of core training requirements based on individual workplace risks, see [Appendix A](#).

Core health and safety training resources are maintained by EHS and/or Biosafety, and are available online. Training courses include but are not limited to those listed below.

EHS Maintained Trainings: (<http://www.ehs.colostate.edu/WTrainReg/ClassSignUp.aspx>):

- Bloodborne pathogens for non-lab workers (custodial, campus recreation, CSUPD, etc.)
- Right to Know Training (Hazard Communication):
 - AED awareness
 - Asbestos
 - Bloodborne pathogens for non-lab workers (custodial, campus recreation, CSUPD, etc.)
 - Ergonomics
 - Fire Safety
 - Globally Harmonized System
 - Hazardous Waste
 - Personal Protective Equipment
 - Radiation Safety

Biosafety Maintained Trainings (Scishield):

- Annual Biosafety Training
- Biosafety cabinet training
- BSL-3 Foundations Training
- BSL3 Live Training (in person)
- Bloodborne pathogens (BBP) Training
- 6.2 and 9 Dangerous Goods IATA and DOT Training
- Select Agent Characteristics and Symptoms Training
- Select Agent Regulations Training

Organizational Units: Departments, supervisors and principal investigators will be responsible for providing site specific training for the employees working under their supervision. The training will be specific to the species, organisms, chemicals, and procedures to be used. The IACUC serves as a primary resource to assist principal investigators and supervisors in assuring proper animal care and use training of those they supervise.

Departments will be responsible for maintaining the documentation of departmental training. Training requirements use a fiscal year calendar and documentation must consist of the following information: date of training, topics covered, name of the person providing the training, and the participants acknowledgement of attendance. Records should be maintained for *five years*, unless otherwise specified. EHS, through the Occupational Health Program, will manage documentation of mandatory general University safety training.

SAFE WORK PRACTICES AND ADMINISTRATIVE CONTROLS

Safe work practices and administrative controls are measures aimed at reducing exposure to hazards and include written procedures, safety policies, rules, and practices. Habitual adherence to good practices is expected of all CSU staff, students, and volunteers, and provides a margin of safety in situations where hazards may be unrecognized.

Safe work practices and administrative controls exist at all CSU organizational levels, and include:

- Use of and adherence to written safety protocols and Standard Operating Procedures.
- Safety Audits and Oversight: To provide ongoing hazard and risk assessment, and assessment of control measure adequacy, routine health and safety audits are performed by various CSU entities including Biosafety, the CSU Chemical Management Unit, and Environmental Health and Safety. Medical professionals contribute to these assessments by providing medical evaluation and assisting in risk assessment.
- General safety guidance must be followed by all CSU employees, students, and volunteers:
 - [General Lab Safety Manual](#)
 - [Biosafety](#)
 - Electrical Safety
 - Obtain permission and appropriate training before operating any high voltage equipment.

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- Maintain unobstructed access to all electrical panels.
- Wiring or other electrical modifications must be referred to Facilities Management.
- Avoid using extension cords whenever possible.
- Never modify, attach, or otherwise change any high voltage equipment.
- Always make sure all capacitors are discharged (using a grounded cable with an insulating handle) before touching high voltage leads or the “inside” of any equipment, even after it has been turned off. Capacitors can hold charge for many hours after the equipment has been turned off.
- When adjusting any high voltage equipment or laser powered with a high voltage supply, USE ONLY ONE HAND. Your other hand is best placed in a pocket or behind your back. This procedure eliminates the possibility of an accident where high voltage current flows up one arm, through your chest, and down the other arm.
- Mechanical safety
 - When using compressed air, use only approved nozzles and never direct the air toward any person.
 - Guards on machinery must be in place during operation.
 - Exercise care when working with or near hydraulically or pneumatically driver equipment. Sudden or unexpected motion can inflict serious injury.
- [Laser Safety](#)

PERSONAL PROTECTIVE EQUIPMENT AND PERSONAL HYGIENE

Personal Protective Equipment (PPE) refers to equipment or devices worn to control exposure to hazards, and can help to prevent occupational illnesses, allergies, accidental injuries, or serious harm to employees working in hazardous or potentially hazardous environments. Examples of PPE include, but are not limited to, respiratory protection equipment (“masks,” “respirators”), lab coats, gowns, gloves, goggles, safety glasses, safety head covers/hats, hearing protectors, face shields, safety shoes, and specialized law enforcement and firefighting equipment.

PPE will be provided for employees and must be used whenever it is determined to be necessary for protection against biological, chemical, radiological, or physical hazards.

Departmental or Organizational Unit Head Responsibilities Related to PPE

- Primary responsibility for ensuring that appropriate PPE is provided and used as required by Federal, State, or University Guidelines.
- EHS and the Biosafety office may review departmental determinations and designate PPE for specific tasks.

Supervisor Responsibilities Related to PPE

- Providing employees with appropriate PPE.
- Ensuring all employees use and maintain PPE as needed to provide effective protection against identified hazards.
- Ensuring all employees who wear PPE (Including respirators and hearing protection devices) are thoroughly trained in their use.
- Requesting assistance from EHS as needed or when potentially hazardous conditions are identified.

Employee Responsibilities Related to PPE

- Properly using PPE as required.
- Completing required PPE training.
- Properly caring for, cleaning, maintaining, and inspecting PPE as required.
- Maintaining compliance with the Respiratory Protection Program. This is required for all respirator use, including N95s. Compliance consists of:
 - Current enrollment in the Occupational Health Program through completion of a Risk Assessment

- (annual).
 - Confidential medical evaluation to identify conditions that may increase the risks of respirator use (annual).
 - Respirator use training (annual).
 - Respirator fit testing (annual for tight fitting respirators).
- Consulting with EHS for use of PPE when it is NOT required (e.g., voluntary use).

PPE in the Laboratory

Minimum protective clothing for handling hazardous materials in laboratories includes eye protection, gloves (appropriately resistant), laboratory coat, and closed toe/heel shoes. Clothing that leaves skin exposed shall not be worn (e.g., shorts, miniskirts, tank-tops, and half shirts). Exceptions require written approval from the Department and EHS, and may include:

- Situations in which the use of minimum PPE as described above poses a potential hazard level higher than the identified risk.
- Establishment of delineated corridors not requiring PPE (provided the corridor does not pass near any potential exposure hazard).
- Non-hazardous work areas within laboratory/technical areas (provided there exists distinct delineation by distance or physical barrier/s with clear identification of dedicated use).

Chemical splash goggles are required when handling powders and liquids that may be hazardous to the eyes (such as solvents and corrosives).

Personal protective equipment and clothing worn for protection in laboratories using chemical, biological, or radiologic materials must not be worn outside the designated work area.

PPE for Animal Workers

Animal housing facilities at CSU provide dedicated clothing and PPE for staff to use within the animal facility. PPE may include scrub shirts and pants, laboratory coats, facility shoes, respirators, hair bonnets, gloves and hearing and eye protection as appropriate. Clothes are laundered by professional laundry services, except socks, which are laundered in-house. Animal handlers will use PPE to reduce potential contact with contaminated tissues, zoonotic agents and allergens as determined by site-specific protocols.

Personal Hygiene

Personal Hygiene in the workplace is directed mainly toward prevention of occupational diseases and injury and improves work quality. The following are standard operating procedures:

- Insertion or removal of contact lenses and other manipulations that could transfer hazardous materials to eyes or mouth is to be avoided. Cosmetics or lip balm shall not be applied in a laboratory environment.
- Laboratory coats and gloves shall be removed before leaving laboratory facilities, and they shall be laundered on site or by a commercial laundry service. For more information related to lab coat laundering: <https://www.research.colostate.edu/research-safety-culture/lab-coat-services/>
- All personnel will maintain good personal hygiene, to include hand washing, changing PPE as necessary, and washing affected areas that may have become contaminated with animal blood, urine, etc. Hands should be washed before leaving any laboratory or animal facility.

Respiratory Protection Program

Every Colorado State University employee who wears respiratory protection, including individuals wearing a respirator when not required, must participate in CSU's [Respiratory Protection Program](#) by logging in and completing an annual application for respirator use at: <https://shibidp.colostate.edu/idp/profile/SAML2/Redirect/SSO?execution=e1s1>

The use of any and all types of respirators at Colorado State University is subject to review and approval by EHS prior to

use. No employee should wear a respirator unless they have completed all requirements through the Program.

OCCUPATIONAL MEDICINE

Medical Surveillance and Exposure Control Programs

Certain jobs at CSU have inherent risks which may require more extensive review and medical evaluation or surveillance by the Occupational Health Program. Depending on risk assessments, an individual may be required to participate in specific monitoring or medical surveillance programs in order to monitor for early detection and prevention of occupational disease, and to identify conditions that may increase the risk of occupational disease.

Enrollment in a medical surveillance program requires the completion of confidential medical questionnaire/s which are reviewed by an occupational health care physician or other licensed health care professional (PLHCP) for determination of additional medical evaluation or preventive medical service needs. These services may include:

- Review of workplace history and hazard evaluation
- General physical examination
- Blood and urine tests
- Vision and hearing tests
- Pulmonary function testing
- Immunization
- Serological testing
- Allergy testing
- Referral for any special tests, such as chest x-rays or laser eye exams

After evaluation, a written opinion from the PLHCP will be provided to CSU Occupational Health and the employee regarding medical clearance status, conditions of approval, PPE, and work practice recommendations, as applicable. The nature of medical conditions requiring limitations, restrictions, or modifications of work will not be disclosed to CSU without prior authorization from the employee. Recommendations may be made to CSU Environmental Health Services related to workplace risk or exposure assessments.

Covered Individuals must update medical questionnaires as determined in the written opinion, or when employee reports changes in health status. Periodic medical reviews apply to personnel exposed to hazards covered under applicable regulations or guidelines.

Surveillance Program enrollment is based on individual workplace risks, and current requirements are summarized in [Appendix A](#).

Current Surveillance Programs include:

- *Animal Worker Medical Surveillance and Allergy Prevention Program*
 - Applies to all Covered Individuals in contact with animals and is used to determine their likelihood of occupational-induced or laboratory-acquired animal allergies or illnesses. Animal contact is defined as contact with animals, their unfixed tissues, fluids, wastes, equipment used in caring for animals or frequent entry into animal facilities (e.g., caging, anesthesia, biosafety, HVAC, cagewash, etc.).
 - The purpose of CSU's Animal Exposure Surveillance Program is to reduce human health risks associated with the care and use of animals in research, teaching, and service.
 - Any person experiencing allergy symptoms related to work should seek medical evaluation with a CSU Worker's Compensation authorized treating physician.
 - Mechanisms in place at CSU to prevent the development of occupational illnesses and allergies related to animal use include:
 - Training, including information distributed after enrollment in the Occupational Health Program, also available online at:

<http://www.ehs.colostate.edu/WOHSP/AnimalExposureSurveillance.aspx>

- Facilities, procedures, and monitoring
 - Building ventilation/HVAC systems
 - Caging systems with HEPA filtration, air pressure differentials and directional air flow for enhanced containment.
 - Use of biosafety cabinets
 - Workplace practices to reduce allergen levels should include transportation of waste and bedding in sealed containers, and use of wet or damp floor cleaning implements instead of dry sweeping.
- Personal Protective Equipment
 - Protective clothing, gloves, and respiratory protection are available for all animal work, and required for work involving animals/animal tissues infected with select agents.
- Annual Animal Allergy/Exposure Medical Surveillance and preventative medicine.
- *Biological Exposure Surveillance Program*
 - Applies to all employees in contact with infectious agents to help prevent laboratory-acquired infections through vaccination and medical surveillance (for BSL-3, mycobacterium, and HIV research).
 - Available vaccinations may include, but are not limited to, Hepatitis B, Rabies, Yellow Fever, Mpox, Japanese Encephalitis, Anthrax, and Tetanus. For more information about specific available vaccination programs:
 - Rabies: <http://www.ehs.colostate.edu/DV2.aspx?ID=449>
 - Hepatitis B: <http://www.ehs.colostate.edu/DV2.aspx?ID=366>
 - The TB Surveillance program monitors all TB researchers and potentially exposed maintenance/operational employees through biannual or annual PPD skin testing or serum tests. A copy of the CSU TB Surveillance Program can be obtained by contacting the Occupational Health Program Administrator at 970-491-3102.
- *Chemical Exposure Surveillance Program:*
 - Applies to all employees working with hazardous chemicals where exposure monitoring reveals exposure levels for an OSHA regulated substance are routinely exceeded, signs or symptoms associated with hazardous chemicals in the workplace develop, or in the cases of exposure incidents. Surveillance may include baseline medical exam, biological monitoring, and exposure training to educate people of the warning signs of intoxication.
- *Respirator Use Surveillance Program*
 - Applies to all Covered Individuals required to use a respirator, to ensure pulmonary fitness and training before use. This surveillance is required annually as part of the CSU [Respiratory Protection Program](#).
- *Noise Exposure Surveillance Program*
 - Applies to all Covered Individuals exposed to noise above 85dB TWA or 50% dose. This surveillance is required as part of the CSU Hearing Protection Program.

Other Medical Services

Medical services described below are based on individual workplace risks, and current requirements are summarized in [Appendix A](#).

- *Serum Banking* is not done at Colorado State University due to privacy issues, regulations, storage concerns and related costs. However, if an employee is exposed to an infectious agent, blood samples may be taken for baseline testing and subsequent monitoring. This comparison of blood samples will determine if an exposure has occurred.
- *Serological testing* may be performed in some cases for surveillance or verification of antibody protection.
- *Vaccinations* may be recommended or required (at no cost to the Covered Individual) if the individual works with an infectious agent that has an FDA approved vaccine.
 - Tetanus Immunizations are recommended every ten years for certain employees. Immunization history will be determined at the time of risk assessment.

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- Rabies immunization: Pre-exposure immunizations with follow-up antibody titers and repeat immunizations are provided based on risk assessment for personnel who work directly with the rabies virus, have direct contact with animals quarantined for rabies surveillance, are exposed to animals or animal parts with potential of containing the rabies virus, are responsible for the control of wild animals on campus, have regular contact with potentially rabid animal species, and certain laboratory workers.
- Yellow fever vaccinations may be required of all employees depending on work being conducted and location.
- Hepatitis B vaccinations are available to employees who could reasonably anticipate exposure to bloodborne pathogens during performance of regular job duties.
- Other vaccinations may be available, based on risk assessment and consultation with the CSU occupational health care provider.

Special Precautions

Individuals who are pregnant or planning to become pregnant

All pregnant employees should consult with their personal health care physician to discuss specific work tasks and how to reduce risks to mother and unborn child. EHS can provide additional information to physicians to assist in assessment.

Animal workers, especially those known to be pregnant, should be aware of and potentially avoid exposure to certain potential hazards such as pregnant sheep or cat feces (possibility of toxoplasmosis infection). Working with hazardous drugs, agents, or toxic chemicals during pregnancy is also strongly discouraged. Additional information can be found at:

- <http://ehs.colostate.edu/DV2.aspx?ID=336>
- <http://ehs.colostate.edu/DV2.aspx?ID=337>

Personal protective equipment (PPE) should be worn at all times, and additional precautions observed for pregnant individuals, as outlined by the principal investigator, supervisor or physician prior to the start of work with hazardous materials.

Immunocompromised Individuals

Individuals with compromised immune systems should discuss their workplace hazards with their personal health care physician. These individuals are also encouraged to self-report so that appropriate workplace precautionary measures can be assessed.

Medical Provider Reports

Following medical evaluation, the occupational health care provider will provide a Physician's Written Opinion to indicate whether medical conditions have been identified that may require special consideration or alter risk profile; vaccinations are recommended; or restrictions are recommended related to respirator use. No specific medical information will be released to CSU without employee approval.

Upon completion of vaccination or serological testing, the occupational health care provider will provide CSU with immunization dates, and indication of antibody protection levels (e.g., rabies titers). This information will be recorded in the Occupational Health Program Database.

EXPLOSIVE CONTROL METHODS AND PROCEDURES

Mechanisms in place at CSU to control risks include a range of strategies for avoiding, reducing, or eliminating exposures.

Hazard or Risk Types	Prevention Strategy Examples
Engineering Controls (<i>Isolation or removal of hazards</i>)	Practice product substitution; use barriers; allow for adequate filtration and ventilation; maintain proper temperature and humidity controls; regularly check fire extinguishers, alarms, sprinklers
Training & Education (<i>also see below</i>)	Participate in university and departmental specific training programs; follow Standard Operating Procedures (SOPs)
Work Practice Controls (<i>Procedures to reduce or remove risks</i>)	Alter animal handling and transport to reduce exposure; pay attention to personal hygiene, housekeeping, and waste management practices; be informed of and practice standard precautions and SOPs
Personal Protective Equipment (PPE) (<i>Provides a barrier between the body and hazards</i>)	Wear gloves, lab coats, uniforms, gowns, aprons, hard hats, safety glasses, steel-toed boots, respirators, etc., as required
Equipment Maintenance & Operation Procedures	Follow SOPs; be trained in the proper use of equipment and machinery; regularly check machine performance (report any problems or needed repairs to supervisor immediately)
Controlling Animal Sources	Purchase animals from reputable vendors; avoid contact with wild animals or animals of unknown origin; take necessary precautions (PPE, proper animal handling instruction) when it's necessary to work with high-risk species
Controls and Practices Related to Animal Housing, Caging, Bedding	Follow SOPs; wear gloves, protective clothing, use proper posture and body mechanics (lifting, pushing, pulling, etc.).
Controls related to Hazardous Material Use	Follow SOPs; attend university training in lab and chemical safety
Waste Disposal Procedures	Follow university policies and procedures for hazardous waste removal (allow EHS to dispose of the waste properly)
Animal Transportation Procedures	Do not transport animals through common, non-animal corridors or facilities (may expose non-animal personnel); use proper techniques and transport devices
Emergency Procedures	Know the contact people for each facility; be sure emergency phone numbers are posted in animal facilities; be familiar with standard emergency procedures like evacuation routes and emergency exits, what to do in the event of a chemical spill, which medical providers to go to in medical emergencies, and how to report injuries to the University Police and/or Risk Management, Worker's Compensation, Occupational Health, as appropriate Safety Office, Claims Management Specialist

Prevention of Zoonosis (Diseases that can be transferred from animals to humans)	Obtain appropriate immunizations or vaccinations; wear gloves and protective clothing when handling species with zoonotic disease potential; participate in medical consultations and surveillance; avoid high-risk animals and situations
Animal Handling Procedures	Learn proper handling techniques; wear protective gloves, clothing, respirators, etc.
Good Housekeeping Practices	Maintain a clean and organized work area that is free from clutter
Personal Hygiene & Safety <i>(also see below)</i>	Wash hands; wear PPE, as necessary
Individuals who are pregnant or planning to become pregnant	Avoid all exposure to possible toxoplasmosis infection and/or do not have contact with cat feces; Avoid contact with hazardous chemicals – especially during the first trimester; wear PPE
Medical Assessments & Immunizations/Vaccinations <i>(also see below)</i>	Receive the recommended immunizations to prevent disease transmission; Learn strategies (such as wearing a respirator) that would reduce or eliminate exposure to health-altering situations (like allergies)

INCIDENT AND EMERGENCY RESPONSE PROCEDURES, AND REPORTING

While prevention is always the goal, incidents and injuries still occur. Colorado State University (CSU) strives to mitigate the negative consequences of incidents and injuries by being prepared through the establishment of safety protocols, emergency response procedures, and training. Reporting of incidents and safety concerns benefits the broader CSU community by providing an opportunity to review, and collaborate with individuals, departments, and supervisors to identify potential areas of improvement, and strategies for future prevention. CSU has a cohesive incident reporting and response process through Risk Management /Workers' Compensation. All incidents or accidents must be reported:

- Link for reporting Incidents, illnesses, injuries, safety concerns and near misses:
<http://rmi.prep.colostate.edu/insurance/incident-reporting/>
- Link for most current Worker's Compensation information and procedures:
<http://rmi.prep.colostate.edu/workers-compensation/>
- Additional reporting or response procedures required by Departmental units must be followed, but do not replace the need to file the Worker's Compensation First Report.

Safety Concern/Good Catch

A safety concern/good catch is an unplanned event, circumstance, condition, or behavior that did not cause or result in injury, illness, or damage, but had the potential to do so.

Reporting safety concerns and near misses enables CSU to be proactive and take a collaborative approach to preventing injuries and illnesses and in resolving hazards. Reporting identifies risks to prevent future accidents, enables problems to be addressed in real time, increases safety awareness, and provides the opportunity to build safety, communication, and relationships.

Incidents, Injuries, Illnesses

Injuries sustained to CSU employees due to CSU related incidents or accidents may be covered by Worker's Compensation. The course of action will depend upon the nature of the accident. When and where possible, employees should follow the procedures described below. If an accident is serious, injured parties are not expected to fill out forms prior to treatment.

Employees must report all work-related incidents, injuries, illnesses, and exposures ***immediately when possible, or at least within 24 hours, to their immediate supervisor or next person in charge at the time of incident or injury, and to Worker's Compensation within 4 days.*** This includes potential or known exposures including bites, scratches, and allergic reactions.

Dial 911 in the event of fires, medical emergencies, or other serious threats. EHS may also be contacted at 491-6745 for non-emergencies. Follow the procedures outlined by your department in the event of emergencies.

Injuries that include exposure to human blood, body fluids, tissues, and tissue culture cells have the potential for transmitting bloodborne pathogens. Prompt medical evaluation and treatment is necessary for these injuries, and Occupational Health needs to be contacted (during business hours – 970-491-3102). If there is no answer or it is after-hours, contact the emergency Biosafety Office number (491-0270).

BSL3 Specific Information

See CSU's BSL3 Illness Procedure: <http://ehs.colostate.edu/DV2.aspx?ID=331>

Seeking Care with CSU Authorized Treating Physicians

Health is a priority at CSU, and employees are encouraged to seek medical attention whenever there are concerns about a work-related illness or injury.

Employees should seek treatment with a CSU Authorized Physician (ATP) whenever possible, as initial visit costs will be covered through Workers Compensation even if it is determined that the illness is not work related.

To be considered for compensability under Worker's Compensation, medical care must be through an ATP whenever possible. Care from an Authorized Treating Physician may be necessary when:

- There is an injury sustained during the performance of work duties.
- There is a known or strong likelihood of a biological or chemical exposure:
 - Percutaneous or aerosol exposure to *mycobacterium tuberculosis* complex bacteria requires medical evaluation within 24 hours. Emergency room or Urgent care facilities are to be utilized only when an ATP is not available for same day evaluation.
- Symptoms develop which are:
 - Associated with exposure to chemicals or other hazardous substances present in the work area.
 - Characteristic of diseases caused by organisms present in the work area. **This may be different for BSL3 organisms. See the BSL Illness Procedure linked above for information related to ATP evaluations for BSL3 workers.**
- The ER, Urgent Care, Worker's Compensation have advised follow-up after an Emergency Room Visit.

For a list of CSU Authorized Treating Physicians: <https://rmi.colostate.edu/workers-compensation/authorized-treating-physicians/>

Seeking Care at an Emergency Room or Urgent Care

Due to limitations in Worker's Compensation coverage, medical care must be sought from an Authorized Treating Physician whenever possible. Visits to the Emergency Room or Urgent Care are not eligible for Worker's Compensation if

it is determined that the illness or injury is not work related, and individuals or personal insurance carrier will be responsible for health care costs.

- However, special considerations can be made when emergency medical attention is sought in compliance with CSU's Exposure Control Plans for communicable BSL3 infectious disease exposures/illnesses. Contact CSU's Occupational Health Program, Joni Van Sickle (970-491-3102, joni.triantis@colostate.edu) or Danette French (970-491-6349, danette.french@colostate.edu) for assistance with this process.

THE EMERGENCY ROOM OR URGENT CARE SHOULD ONLY BE VISITED:

- For major injuries sustained in the workplace.
- OUTSIDE OF NORMAL BUSINESS HOURS and immediate medical care or evaluation is required.
- For certain known exposures **where it has been pre-determined that individuals must seek emergency room care**. See BSL3 Illness Procedure for Emergency evaluations for BSL3 workers.

Critical follow up after going to the Emergency Room (ER) or to Urgent Care :

- Employees must follow up an Emergency room or Urgent Care visit with a Worker's Compensation Authorized Treating Physician (On a case-by-case basis Worker's Compensation may waive the follow up requirement).
- It is the responsibility of the employee to provide the Worker's Compensation Claim number and billing information to the ER or Urgent Care:

Gallagher Bassett:

P.O. Box 4998

Greenwood Village, CO 80155

Phone: 303-804-2000; Fax: 303-804-2005; Toll-Free: 888-428-467

Medical Response During Travel or Field Work

Ideally, field safety plans should be present while working in the field and should include first aid resources (see below), incident reporting procedures, emergency contact numbers, and contact information for nearby medical services. While the primary objective in the event of injury outside normal work jurisdiction is to seek medical evaluation, individuals should attempt to seek care with an Authorized Treating Physician whenever possible. Identifying ATPs in advance of field work is recommended and Worker's Compensation can be contacted to provide lists of ATPs outside of Colorado.

In the case that ATP information is unknown, individuals should prioritize medical care, and follow up with Worker's Compensation to discuss the need for additional follow up.

First aid may sometimes need to be administered while waiting for professional medical services. A variety of useful first aid resources are available for download to smartphone (and are accessible without cell or wifi service) such as the Emergency Medical Response Guide or "EMR Guide" from the National Safety Council and "First Aid" from the American Red Cross. Both are available free from the App Store.

International travelers should refer to <https://rmi.colostate.edu/international-travel/> for emergency procedures and travel insurance card. The US State Department and embassy websites provide guidance on finding a doctor or hospital while abroad.

Visitors, Volunteers, and Non-Employee Students

Information related to CSU Worker's Compensation does not apply to visitors, outside contractors, volunteers, or students working for credit or research who are NOT being paid by CSU for their work:

- CSU Students may seek medical evaluation through CSU Health Network or their own Primary Care Physician.
- If applicable, outside contractors or associates should seek medical evaluation per procedures established by their own Occupational Health Program.

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- Individuals are welcome to seek medical evaluation through CSU Authorized Treating Physicians or through local emergency or urgent care facilities at their own cost.
- CSU Occupational Health is available to provide information to medical providers as requested.

Basic First Aid

The administration of immediate care during an emergency can help an ill or injured person before emergency medical services can be provided. First aid training includes valuable hands-on practice that cannot be replicated in any other way. Certification should be kept current. Refresher training and practice is vital to maintain competency in first aid. The Colorado Good Samaritan Law provides immunity to encourage individuals to volunteer to assist others in need during an emergency, but only provide treatment within the scope of training level.

Protocol for Injury and Known/Potential Exposures

It is critical that all employees are aware of the hazards associated with chemicals and biological agents they work with. For any exposure:

- BSL3 Workers: Follow specific protocols for agents worked with and the [BSL3 Illness Procedure](#).
- Initiate first aid at the worksite:
 - Remove contaminated gloves or clothing immediately.
 - Rinse all exposed skin, mucous membranes, or eyes with copious amounts of water (unless the chemical is reactive to water).
 - Apply antiseptic and band aid to broken skin.
- Notify:
 - Warn others in the area.
 - Notify supervisor or co-worker as soon as possible to get assistance with clean up and/or arrange for transportation to medical facility, if needed.
 - Other contacts for additional assistance, as appropriate depending on nature of incident:
 - For BSL1/2/3 related incidents, Contact Biosafety/Occupational Health to discuss your circumstances and options for medical evaluation.
- Medical Evaluation:
 - If medical evaluation is needed, Contact CSU Occupational Health at 970-491-3102 or 970-491-6349 to facilitate appointment details with medical providers.
 - Upon arrival, indicate that your visit is related to your activities at CSU. Employees specifically state that your visit is work related.
 - State who you are, where you work, what caused the injury/illness, and what potential infectious agents you work with.
 - If you have a fever or suspect exposure to human pathogens, wear a mask or N95 and DO NOT INTERACT WITH OTHER PATIENTS!
 - Provide information to health care professional as outlined in Standard Operating Procedures for chemical or agent exposed to.
 - Complete appropriate reports/follow up as soon as possible See Follow Up section below.
- Emergency Contacts:
 - Occupational Health: 970-491-3102
 - 24-hour emergency Biosafety number: 970-491-0270
 - Chemical Management Unit: 970-491-4830
 - CSU Police Department dispatch/non-emergency: 970-491-6425
 - For emergencies, call or text 911

Follow up After Injuries or Illness

Workers Compensation

- The Workers' Compensation website contains current specific procedural and contact information: <http://rmi.prep.colostate.edu/workers-compensation/>
- A Workers' Compensation report must be filed within 4 days (or as soon as possible) after the injury or illness. If needed, Supervisors or the Workers' Compensation office (970-491-4832 or 970-491-6745) can provide assistance with filling out this form: <http://rmi.prep.colostate.edu/insurance/incident-reporting/>
- All claims are subject to review for compensability under current Colorado Workers' Compensation statutes.
- Time missed from work due to the injury is not considered for wage replacement coverage until medical care is sought and injury accepted as work related.

Biosafety

- A Biosafety Incident Report (<https://drive.google.com/file/d/0BzRT2XYL-3jhNVJxT3JxSUdrOUk/view>) must be filed within 24 hours of:
 - Incidents or near misses involving a biological agent
 - Exposure to human blood, body fluids, tissues, and tissue culture cells
 - This form is not related to Workers' Compensation
 - Employees unable to fill out the form must contact their supervisor for assistance.

Other Follow Up

- After going to the Emergency Room (ER) or Urgent Care, employees must:
 - Follow up with a CSU Authorized Treating Physician, (ATP) and all ER referrals MUST be coordinated through the ATP. Services not coordinated through the ATP and authorized through Workers' Compensation maybe be the financial responsibility of the employee.
 - Provide the ER or Urgent Care with their Workers' Compensation Claim Number and Billing information:
- The injured individual is required to follow up as directed by the health care provider, and must follow all medical restrictions, 24 hours a day, 7 days a week.
- The Supervisor or appropriate departmental contact is required to assess the event/incident for immediate hazards and conduct an investigation. The Supervisor must identify and document corrective actions to prevent similar incidents from occurring in the future.

REFERENCES/GUIDANCE DOCUMENTS

The following references has been used as guidelines for program development:

- [Guide for the Care and Use of Laboratory Animals, 2011, National Research Council](#)
- [Occupational Health and Safety in the Care and Use of Research Animals, National Research Council](#)
- [Occupational Health Program Guidance for Tier 1 Select Agents, Centers for Disease Research](#)
- [Public Health Service Policy on Humane Care and Use of Laboratory Animals](#)

APPENDIX A: PROGRAM SUMMARY, GROUPED BY RISKS

RELEVANT/CORE INFORMATION

The following is distributed to individuals upon completion of ANY Risk Assessment:

YOU CAN BE AT INCREASED RISKS WHEN YOU ARE IMMUNOCOMPROMISED, PREGNANT, OR ILL.

Know your workplace and individual risks and ask for help in evaluating these risks. Contact Occupational Health for more information or if there have been changes in your health status.

Ergonomics is an important factor in maintaining Occupational Health. Check out this website for more information about ergonomics basics, evaluation, and training at CSU:

- <https://rmi.colostate.edu/ergonomics/>

If you work in a laboratory setting:

- [General Lab Safety](#)
- [Hazard Communication and Globally Harmonized System](#)
- [Personal protective equipment \(PPE\)](#)

If you work with biologicals (In a lab or area that works with biological hazards):

- [Working only at Biosafety levels 1/2 training](#)
- [CSU Biosafety Manual](#)
- [If you work with lentiviral vectors](#)
- You may be eligible to receive certain vaccinations. To inquire please contact CSU Occupational Health.

If you work with animals:

- Medical Surveillance is REQUIRED for employees working with animals on an IACUC protocol.
- Employees will receive an email with a link.

- Students with concerns related to animal allergies or exposures can seek evaluation at their own cost with CSU Health Network or personal health care physician.
- [Training – Occupational Health for animal workers](#)
- [Important information and resources related to animals](#)
- [Ergonomics and animal handling](#)
- Employees may be eligible to receive certain vaccinations. To inquire please contact CSU Occupational Health.

If you work with hazardous chemicals:

- [Hazardous waste generator training](#)
- [Hazard Communication and Globally Harmonized System](#)

If you work with formaldehyde:

- [Formaldehyde face sheet](#)

If you are of reproductive age:

- [Reproductive hazards](#)
- [Carcinogens, reproductive toxins, and teratogens](#)

If you work with lasers:

- [Laser safety training](#)

RELEVANT/CORE TRAINING

The following are required for anyone working in a lab or working with biological and/or zoonotic hazards, or with recombinant DNA:

- Hazard Communication and Globally Harmonized System (GHS)
- Other Hazard Communication Right to Know, as relevant (e.g., PPE, etc.)
- Hazardous Waste Generator
- Annual Biosafety Training (BSL3 work requires different training)

Additional Core Training based on Risk (Page 1):

Risk	Work with biological and zoonotic hazards, or with recombinant DNA	Potential exposure to animals*, including non-human primates and field studies	Work in areas where Respirator use is required (N95, PAPR, half face, full face)
Program	Biosafety Program		
Core Information (In addition to that sent in Risk Assessment confirmation detailed above)	CSU Biosafety Manual		Respirator Use Surveillance Program
Core Training (In addition to site specific training)	• BSL3 training if working in BSL3 areas(annual)	• Animal care and use training (through IACUC)	• Initial respirator training
Medical surveillance (Annual renewals, information and requests sent upon completion of Risk Assessment, with annual reminders)	• Working with Tier 1 Select Agents: • Annual surveillance • Working with mycobacterium: • Periodic PPD skin or serological monitoring • Further testing as indicated	Animal Exposure Surveillance, annual renewal	Annual medical evaluation for medical clearance, examination and pulmonary function testing as indicated
Vaccination/serology (Information/approval sent upon completion of Risk Assessment and/or request – pending risk evaluation)	• Vaccination: Yellow Fever, JEV, Rabies, Hepatitis B, M.pox, Anthrax, etc. • Serological Testing: Rabies, Hepatitis B, HIV	• Vaccination: Tetanus, Rabies • Serological Testing: Rabies	
Other			Annual fit testing required. Voluntary use requirements may vary.

*Exposure to animals is defined as contact with animals, their unfixed tissues, fluids, wastes, equipment used in caring for animals, or frequent entry into an animal facility (e.g., caging, anesthesia, biosafety, HVAC, cagewash)

Additional Core Training based on Risk (Page 2):

Risk	Work with human blood, blood products, tissue, cell culture, or humanized mice	Exposure to Radiation	Work with Chemicals
Program		Radiation Safety Program	Chemical Exposure Surveillance Program
Core Information (In addition to that sent in Risk Assessment confirmation detailed above)	Bloodborne Pathogen Exposure Control Plan CSU Biosafety Manual	Radiation Safety Manual	Hazardous Chemical Waste System Manual Controlled Substance Program
Core Training (In addition to site specific training)	Bloodborne Pathogen Training (annual)	Per Radiation Safety Program, requirements/schedule found on Radiation Safety Program home page Radiation Training For laser users	Chemical specific training as appropriate Controlled substance use training if relevant
Medical surveillance (Annual renewals, information and requests sent upon completion of Risk Assessment, with annual reminders)		MUST participate in Radiation Control Office program	Baseline screening and medical surveillance in areas identified to exceed regulatory action levels of permissible limits.
Vaccination/serology (Information/approval sent upon completion of Risk Assessment and/or request – pending risk evaluation)	Vaccination and Serological Testing: Hepatitis B		
Other			

Additional Core Training based on Risk (Page 3):

Risk	Visitors, Contractors, and Non-CSU affiliates	Noise Exposure	Physical Stress
Program		Hearing Protection Program	<u>CSU Ergonomics Program</u>
Core Information (In addition to that sent in Risk Assessment confirmation detailed above)	Individuals are sent information regarding hazards they may encounter at CSU, and are referred to their own institutions Occupational Health Care Provider, or their Personal Health Care Provider for questions, concerns, or evaluation.		Risk specific training as appropriate
Core Training (In addition to site specific training)		PPE training as needed	
Medical surveillance (Annual renewals, information and requests sent upon completion of Risk Assessment, with annual reminders)	Individuals entering BSL3 areas or listed on IACUC protocols must submit documentation of medical clearance from their own institutions Occupational Health Care Provider, or their Personal Health Care Provider.	Noise Exposure Surveillance Program for all employees exposed to noise above 85dB TWA or 50% dose: • Baseline audiogram • Annual audiogram Training on proper use of hearing protection	No medical surveillance required
Vaccination/serology			
Other			

APPENDIX B: OCCUPATIONAL HEALTH COMMITTEE

The Occupational Health Committee list of members is pending appointment by the new Vice President for University Operations (VPUO) and the Vice President of Research (VPR) as of June 2023.