The purpose of the Occupational Health and Safety Program for Personnel with Animal Contact is to minimize the health and safety risk of working with vertebrate animals to an acceptable level. This Occupational Health and Safety Program for Personnel with Animal Contact (OSHPAC) serves as Western Carolina University’s written policy for occupational risk reduction for those using or exposed to animals in research or teaching.
Scope
The Occupational Safety and Health Program for Personnel with Animal Contact (OSHPAC) is applicable to all personnel involved in the direct care of vertebrate animals and their living quarters, including:

- Full time, part time, and temporary WCU personnel involved in animal care areas that house animals for research and/or teaching purposes.
- Research investigators and their technical staff.
- Instructors involved with animal related work.
- Other personnel who may reasonably be expected to come in contact with vertebrate animals (live or dead), their viable tissues, body fluids or wastes (facilities management, security, housekeeping, etc.).

Participants are organized into categories that reflect the specific surveillance needs of the individuals based on real or potential occupational exposure to specific species of animals.

*Category 1*: Personnel whose contact is limited to activities in teaching laboratories and do not contact the animals directly (i.e. housekeeping, maintenance, and engineering activities).

*Category 2*: Personnel who work in animal husbandry or research and have regular contact with animals (or tissues, etc.).

Program Summary
The Program Components include:
- Hazard Identification and Risk Assessment (WCU Animal Contact Questionnaire)
- Personnel Training
- Facilities, Procedures, and Monitoring
- Personal Protective Equipment
- Medical Evaluation and Preventive Medicine

The assessment of risk will be determined by frequency of contact, intensity of exposure, hazards associated with the animals being handled, hazardous properties of agents used in research, the susceptibility of individual employees, the hazard-control measures available, and the occupational history of individual employees. Baseline risk assessment will involve completion of an Animal Contact Questionnaire and, depending on personnel category, may include completion of job duties and medical questionnaires, interview with an occupational health specialist, and a physical examination. Contact the Safety and Risk Management Office (828-227-3645) for a copy of the questionnaire.
**Category 1 Personnel:** must receive training on the health risks associated with their animal contact. They will not routinely fill out a questionnaire or visit the contract medical provider.

**Category 2 Personnel:** fill out a "Vertebrate Animal Contact Questionnaire" and send the form to the Safety and Risk Management Office for initial enrollment into the program. Upon review of the risk assessment, if further monitoring is necessary, a subsequent Medical Questionnaire will be required. The supervisor is responsible for ensuring that the questionnaire is completed and appropriate sections are sent to University Health Services. A medical provider there will review the questionnaire; any follow-up discussion with the employee, or medical examination, will be at the discretion of University Health Services.

In addition to the above baseline evaluation, all personnel will receive regular training and/or notification of health risks associated with animal contact, including the importance of medical follow-up if problems (e.g., allergy) arise.

All personnel working with animals should receive tetanus vaccination every 10 years, and those who have contact with random source or wild mammals, or mammals kept outdoors, should receive rabies vaccination. Additional special procedures/vaccinations may be necessary for certain projects such as work with non-human primates. The supervisor is responsible for notifying employees of vaccination requirements and ensuring that vaccinations are received according to occupational physicians’ recommendations. Health Services is responsible for maintaining medical records and assessment forms.

**Program Responsibility**

**Supervisor/PI Responsibility**

1. The supervisor will ensure that personnel under their supervision:
   a. Are properly enrolled and categorized, according to this policy.
   b. Complete questionnaire forms and route them properly.
   c. Obtain necessary vaccinations.
   d. Are appropriately oriented to health and safety risks in their working environment.

2. Understands Responsibility – IACUC Chairperson and Supervisors/PI's should review WCU Health and Safety Manual sections which apply to his/her operation.

3. Personal Protective Equipment - OSHA requires that each Supervisor/PI perform an assessment of the hazards of their work area to determine the type of protective equipment needed. Please refer to WCU’s Chemical Hygiene Plan and Biological Safety Manual.

4. Employee Training - Supervisors and PIs are responsible for assuring that each new employee, whether temporary or permanent, receives appropriate safety training at the start of employment.
5. In addition to reviewing the required laboratory safety training with each new employee, specific training on animal contact risks is available and will be supplied following the employee job assessment. Information is given on such topics as allergies to specific species, zoonotic infections, and physical injuries. The list below is not comprehensive and includes areas that all employees should have familiarization with. Training provided to the employee should be maintained in his/her personnel file.
   - Medical response for animal bites, scratches, and traumatic injuries.
   - Recognition and response for zoonotic infections.
   - Personal hygiene practices.
   - Correct use of personal protective equipment.
   - Correct handling of waste material.

6. Self-Inspections: Each supervisor is required to review regular inspections of their work area. At a minimum, an inspection of the work area using the Laboratory Inspection Checklist is required once per semester.

7. Corrective Action Closure: Supervisors must assure that corrective action is taken and completed on deficiencies noted through inspections conducted by the Office of Safety and Risk Management, their own self inspections, or results from investigations of accidents and incidents.

8. Employee Involvement: Supervisors should involve their employees in their accident prevention activities. Employee observation and feedback to correct at-risk behaviors of coworkers and praise safe behaviors is an effective and recommended technique. Teams of employees and peers for investigating accidents and incidents and to perform workplace inspections are also recommended.

In addition to training efforts and responsibilities referred to above, there is specific information on the OSHPAC included in the training required by the Institutional Animal Care and Use Committee.

**Safety and Risk Management Office Responsibilities**

1. Coordinate the OSHPAC program for the University.
2. Work in cooperation with supervisors and the contract medical provider to improve efficiency and effectiveness of the medical surveillance aspect of the program.
3. Work in cooperation with supervisors and IACUC to ensure up to date Occupational Health and Safety training modules are supplied.
4. Perform regular laboratory inspections and provide reports.
Program Criteria:

Enrollment

**Category 1 personnel** will not enroll in the OSHPAC, but must receive training specific to their animal exposure. The supervisor is responsible for providing and documenting training.

**Category 2 personnel** initially enrolling into the program must complete the "Vertebrate Animal Contact Questionnaire," and return it to the Safety and Risk Management Office. Enrollment of Category 2 personnel in the OSHPAC should occur prior to the participant's exposure to animals, their viable tissues, body fluids or wastes. As discussed above, the supervisor has a central role in ensuring personnel health and safety in the workplace, including participation in the OSHPAC.

For employees who are already enrolled in the program and have submitted a previous questionnaire, a subsequent questionnaire may be required as described below:

- Whenever there is a change in health status that could increase your risk of health problems due to exposures to animals, such as developing a new onset asthma or contact allergy.
- Whenever there is a change in your job description dealing with animal handling e.g. from changing bedding to shaving animals.
- Whenever there is a change in animal species or biological materials.

IACUC is responsible for tracking participation in the OSHPAC.

If an employee wishes to decline participation in a portion of the entire health assessment program the supervisor needs to be informed. The supervisor must consult with a University Health Services physician at (828) 227-7640 in circumstances where an employee refuses to complete the medical questionnaire or refuses to comply with physician’s recommendations. Declining participation in a required element may result in exclusion from certain positions or work activities.

Accidents and Illnesses

Accidental Injuries

Accidental injuries to students, staff and visitors while on University property or during the course of University employment or activity must be reported to the Safety and Risk Management Office within 24 hours.

Occupational Illness

Occupational illnesses are medical disorders resulting from exposures to workplace environmental factors such as chemicals, biological agents, noise, repetitive motion, radiation, etc. The exposure may be a short-term over exposure or may occur over a long period of time. Acute illness from short-term over exposure and any direct exposure to blood or body
fluids are to be reported to the Safety Office following the same procedure as accidental injuries. Illness from long term suspected exposures are to be reported at the time the employee is informed of a possible chronic illness by a medical physician.

**Near Miss Incidents (Close Calls)**
Incidents which do not result in an injury or illness but could have under slightly different circumstances should also be reported to the Safety Office in order to assess the need for corrective action to prevent an incident in the future.

**University Health Services**
All injured personnel should be directed to University Health Services when practical. If the injury is severe, dial 828-227-8911 (on campus) or 911 (off campus) immediately. The University Health Services report generates an initial report to Safety & Risk Management for all cases which are referred to the Health Service. For cases, which are not referred to the University Health Services, the employee's supervisor or department must report the case to the Safety Office.

**Employee Statement Form**
Employees involved in an accident or occupational illness will be required to complete an "Employee Statement" form providing factual information about the accident or illness. The form is available from the Safety Office (828-227-7443). The immediate supervisor of an employee involved in an accident or occupational illness is responsible for determining the cause of the accident or illness and forwarding the Employee Statement form to the Safety Office. As the manager in charge of daily work activities supervisors are expected to determine what happened, why it happened, and how it happened.

**Follow up Investigation**
All accidents, illnesses, and fires will be investigated by the Safety Office for the purpose of analyzing the circumstances surrounding the event, the possible need for corrective action to prevent future occurrence, and the compensability of a reported injury or illness under the terms of the North Carolina Workers' Compensation Act. A safety follow-up report will be completed for all accidents.

**Possible Rabies Exposure:**
If you are exposed to a potentially rabid animal, wash the wound thoroughly with soap and water, as well as isopropyl alcohol if available. Allow wound to bleed unless there is risk for significant blood loss, and seek medical attention immediately. A health care provider will care
for the wound and will assess the risk for rabies exposure. The following information will help your health care provider assess your risk:

- the geographic location of the incident
- the type of animal that was involved
- how the exposure occurred (provoked or unprovoked)
- the vaccination status of the animal
- whether the animal can be safely captured and tested for rabies

Steps taken by the health care provider will depend on the circumstances of the bite. Your health care practitioner should consult state or local health departments, veterinarians, or animal control officers to make an informed assessment of the incident and to request assistance. The important factor is that you seek care promptly after you are bitten by the animal.

**Cost**

All services rendered by University Health Services (vaccinations and injury response) will be invoiced to the department for which services were rendered.

**Hazards Associated with Animal Contact**

Many different kinds of physical, environmental, or biological hazards are associated with the use of animals in teaching or research. Some examples are given below:

<table>
<thead>
<tr>
<th>Potential Risk of......</th>
<th>Due to......</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back Injury and other acute injury (crush, abrasion, laceration)</td>
<td>Lifting, pushing, twisting, falling, getting stepped on, kicked, etc.</td>
<td>Feed bags, cage racks, restraining large animals, slipping on wet floors,</td>
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<tr>
<td>Burns</td>
<td>Hot water, steam</td>
<td>Cage washer, autoclave, steam cleaner</td>
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<tr>
<td>Ocular injury</td>
<td>Particulates, UV, Chemicals</td>
<td>Bedding, UV lights, chemicals</td>
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<tr>
<td>Chronic injury</td>
<td>Repetitive motion</td>
<td>Cage changes</td>
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<tr>
<td>Hearing loss</td>
<td>Excessive noises</td>
<td>Cage washing areas, dog runs</td>
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<tr>
<td>Electrical Shock</td>
<td>Faulty electrical wiring</td>
<td>Wet floors, ungrounded equipment</td>
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<tr>
<td>Puncture wound</td>
<td>Bites or scratches</td>
<td>Unrestrained animals</td>
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<tr>
<td>Needle stick</td>
<td>Injecting or bleeding</td>
<td>Improper sharps disposal</td>
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<tr>
<td>Exposure</td>
<td>Allergens, biohazards, chemicals, radiation</td>
<td>Animal hair, dander, serum, animal proteins. Human pathogens, zoonotic agents (latent or introduced). Hazardous materials used for testing, cleaning, anesthetics, etc. Research isotopes, X-ray equipment.</td>
</tr>
</tbody>
</table>
References

Requirements for an occupational health program for the personnel working with laboratory animals are found in the following references:

- Public Health Service Policy on Humane Care and Use of Laboratory Animals that codifies the Guide for the Care and Use of Laboratory Animals (National Research Council, 1996)
- Occupational Health and Safety in the Care and Use of Research Animals (National Research Council, 1997)
- Biosafety in Microbiological and Biomedical Laboratories, 4th ed. (US Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health, 1999)
- Code of Federal Regulations, Title 10, Part 20 and Title 29, Part 1910