



**Animal Contact Occupational
Health & Safety
Program
(AniCon)**

2017

Office of Environmental Health & Safety
www.oehs.wayne.edu

AniCon Program Overview

A Board Certified Occupational Health Nurse Specialist (COHN-S) administers the Animal Contact Occupational Health Program (AniCon) in consultation with a Board Certified Occupational Medicine Physician to provide health and safety advice to researchers and animal care personnel. Medical assessments and treatment protocols are developed for researchers and animal husbandry personnel. DMC-OHS-4K Clinicians provides medical services, maintains confidential records, and bills WSU-HR.

AniCon Program provides medical referral services, information on animal research hazards via documents, posters, and presentations. In collaboration with physicians and other professionals, Occupational Health Specialist develops health surveillance programs, clinical treatment protocols, field emergency first aid, and exposure response procedures.

AniCon follows guidelines set forth in the National Research Council's publication Occupational Health and Safety in the Care and Use of Research Animals. AniCon Program is located in Office of Environmental Health & Safety (OEHS).

Office of Environmental Health & Safety (OEHS)

Office of Environmental Health and Safety, division of research, is committed to providing quality environmental health and safety services to Wayne State University's students, faculty, and staff. OEHS supports WSU's mission of excellence in research, teaching, and community service by promoting safe workplace. OEHS collaborates with other departments and committees to develop and implement health and safety procedures that ensure compliance with local, state, and federal regulations. OEHS is dedicated to preventing employee injuries and illnesses, anticipating hazards, and timely responding to workplace emergencies.

AniCon Participants:

Division of Laboratory Animal Resources (DLAR)

DLAR procures research animals and strives to maintain adequate ventilation and cleanliness in animal facilities. DLAR provide animal handlers training on proper animal care and manipulation. Animal care staff uses engineering controls, administrative controls, and personal protective equipment to enhance safety.

Animal Care Personnel

Personnel trained to care for research animals and educated about research hazardous including animal allergens. Animal care staff are expected to comply with biosafety practices, adhere to safety precautions outlined in "Animal Hazardous Agent Forms" (AHAF), and report unsafe working situations to the Team Leaders or Managers.

Principal Investigators (PI)

PIs develop and implement research protocols, they ensures compliance with IACUC, IBC, and OEHS safe practices and administrative procedures. PIs ensure their researchers are aware of research hazardous, receive safety training, use engineering controls, and protective equipment.

AniCon Participants:

Researchers are trained in biosafety practices, laboratory safety, and provided protective equipment. Animal researchers are encouraged to correct or report unsafe research procedures to PIs or anonymously to IACUC.

Institutional Animal Care and Use Committee (IACUC) IACUC reviews and approves animal research protocols. IACUC inspects animal housing facilities and laboratories where animals are used to ensure proper animal handling and research practices. IACUC in conjunction with DLAR and OEHS inspects labs and animal facilities biannual.

Institutional Biosafety Committee (IBC) IBC reviews research protocols involving recombinant DNA, animals, infectious agents, and select toxins. IBC provides guidance to researchers on biosafety practices, provides training, and inspects laboratories to ensure compliance with federal regulations and safety practices.

Frequent Clinical Concerns

1. Animal allergies
2. Biological and chemical exposures
3. Diseases transmitted among human
4. Musculoskeletal disorders
5. Wounds: punctures, cuts, bites, scratches, burns
6. Zoonotic diseases transmitted among animals and humans

Animal Allergies

Allergic reactions to animals are one of the most common conditions that affect personnel involved in care and use of research animals. Animal allergies develop as a result of repeated exposure to animal proteins found in animal urine, saliva, and dander. Exposures occur by way of inhalation, skin, or mucous membrane contact. Generally symptoms can develop within 6 months to 3 years of exposure. Most common symptoms are; runny nose, watery itchy eyes, nasal congestion, skin rash, cough or wheezing, and shortness of breath.

All species of laboratory animals can trigger an allergic reaction. However in laboratory research setting allergies to mice, rats, and rabbits are most common. Risk factors for becoming allergic to laboratory animals include; intensity of exposure and medical history. Because animal allergies can develop into a chronic disease such as asthma, and can also result in a life threatening condition such as status asthmaticus or anaphylactic shock it is very important to decrease exposure.

Animal research personnel are educated on how to avoid exposure to animal allergens via AniCon online training, presentations, and animal allergen awareness documents, they are advised to follow safe practice procedures, participate in animal allergy medical surveillance, and follow-up with medical evaluations and treatments.

Zoonotic Diseases

Zoonotic diseases are transmitted among animals and humans. For more information visit CDC: <https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html> , <https://www.cdc.gov/ncezid/>

Muscular Skeletal Disorders (MSD)

Animal care duties include; cleaning and processing cages, medicating and manipulating animals, watering and feeding animals. Some work tasks require repetitive movements, lifting animals, and heavy objects. Animal care duties can cause muscular skeletal disorders (MSD). MSD are injuries that affect muscles, ligaments, or spinal disc, e. g., wrist injuries and back pain. Animal care staff is provided ergonomic training on preventing accidents and avoiding injuries. Personnel are encouraged to request help from co-worker when handling animals or objects more than 25 lbs.

Biological, Chemical, and Radiation Safety

OEHS provides mandatory training on biosafety practices, laboratory safety, bloodborne infectious diseases, and radiation safety. PIs' standard operating procedures (SOP) and animal hazardous agent forms (AHAF) advise animal handlers about avoiding contact with research agents. Visit: www.oehs.wayne.edu for information on biosafety practices, chemical safety, hazardous materials, waste disposal, and radiation safety.

Reproductive Concerns

Employees who become pregnant or are planning pregnancy can request work re-assignment if duties adversely affect pregnancy. Employee and Physician can indicate if work duties are risky. Manager or PI can re-assign work duties.

Risks include;

1. Contact with cat feces or contaminated waste
2. Exposure to biologicals , chemicals, or radiation
3. Heavy lifting or prolong standing
4. Exposure to high temperatures

Pre-existing Health Conditions

Employees' immunosuppressed or with medical conditions are encouraged to discuss concerns with Physician and inform Occupational Health Specialist. Manager or PI can re-assign duties.

Risks include;

1. Handling biologicals, e.g., adenoviruses, lentiviruses, etc.
2. Performing duties that exacerbate respiratory illnesses
3. Exposure to chemicals or radiation

Health Surveillance & Medical Service

Health risk assessment

Physical examination

Periodic animal allergy screen

Animal allergy medical assessment

Medical clearance: respirator use & N95 fit test

Therapies, e.g., antibiotic and antivirals

Treatments, e.g. work injuries and illnesses

Tuberculosis screen

Immune globulins

Health Surveillance & Medical Service

Laboratory Test

Blood: CBC with differential

Urine analysis

Liver function test (LFT)

IgE antibody testing (RAST or ELISA)

Toxoplasmosis titer

Titers; Hepatitis B, Measles, Mumps, Rubella

Vaccines

Hepatitis A & B

Influenza

Measles, Mumps, Rubella (MMR)

Meningitis (MCV4: Menactra & MenB: Bexsero, N. meningitidis prophylaxis)

Pneumococcal

Rabies

Tdap: Tetanus, diphtheria and pertussis

Varicella

Diphtheria antitoxin (DAT via CDC, post diphtheria toxin exposure)

Vaccinia (via CDC, vaccinia prophylaxis)

Work Practice Guidelines

1. Limit access to animal facilities.
2. Adhere to biosafety practices and “Animal Hazardous Agent Forms”.
3. Post safety signage; biohazard, PPE, etc.
4. Read safety data sheets (SDS).
5. Participate in occupational health programs and safety trainings.
6. Decontaminate with proper disinfectant.
7. Properly dispose sharps, biohazards, toxic chemical, etc.
8. Use gloves, protective clothing, N95, eye protection, and wash hands frequently.
9. Maintain cleanliness, organized rooms, proper temperature, and air flow.

Clinical Care or Emergency Care

Incidents involving research animals: Complete Report Injury Form’

<http://idrm.wayne.edu/risk/rofi.pdf> , return form to Office of Risk Management, retain a copy, inform Manager or PI. Contact Occupational Health Specialist: 7-5917.

DMC-OHS-4K Clinic: 7:30 a.m. - 4:30 p.m., 4201 St. Antoine, Occupational Health Services Clinic- 4K, 4th floor, area K, phone: 313-745-4522, fax: 313-745 3263.

DMC-DRH-ER: Provides 24-hour emergency care. If urgent care is required, call: (313) 966-8604 to expedite service or convey information about the exposure. ER fax: 313- 745-3455 for transmitting information, e.g., agents’ Safety Data Sheet (SDS).

EMERGENCY: Call WSU Police: 313-577-2222 for medical transportation. Call OEHS: 313 577-1200 about laboratory spills, if no one answers call WSU Police.

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