

DREXEL UNIVERSITY

OCCUPATIONAL HEALTH PROGRAM FOR PERSONNEL WHO HAVE CONTACT WITH OR EXPOSURE TO LABORATORY ANIMALS

WHO SHOULD PARTICIPATE?

All Drexel University personnel who work in laboratory animal facilities or have contact with laboratory animals or animal tissue should participate. Included are those employees involved in the care of animals and their quarters, and employees who have direct contact with animals (live or dead), their tissues, body fluids, or wastes.

This includes:

- all ULAR staff
- investigators and laboratory personnel
- those at inherent risk with use of human products which have blood borne organism potential
- students working in laboratories where they have contact with animals and animal tissues

WHAT IS INCLUDED?

The Occupational Health Program includes:

- completion of a health questionnaire
- physical exam (if needed)
- appropriate screenings
- tuberculin skin test (if needed)
- tetanus toxoid inoculation to maintain immunity (if needed)

How DO I ENROLL?

Contact the Office of Safety and Health at 215 895-5907 or via email at dd35@drexel.edu, to schedule an appointment with Occupational Medicine. Please include your name, position, and department.

IN CASE OF EMERGENCY:

FOR ALL EMPLOYEES NEEDING FIRST AID AND/OR MEDICAL ATTENTION,
THE FOLLOWING MEDICAL FACILITIES SHOULD BE USED:

Worknet Occupational Health, Bobst Building, 1st Floor, (Center City Campus), from 8:00 a.m. – 5:00 p.m. After hours/remote locations – nearest Emergency Room.

All injuries should be reported to the Director, ULAR and your supervisor.

DISEASES COMMUNICABLE FROM ANIMALS TO MAN

Humans usually are not susceptible to infectious diseases suffered by animals, however there are important exceptions. Infections of animals may, on some occasions, produce serious disease in people. These infections are called zoonotic diseases. They are transmitted from animals to humans. In some cases the animal may show few, if any, signs of illness. While the animals have developed "resistance" to the disease agent, humans may lack the protective immunity. One should always be aware of the possible consequences of working with each species of animal and take precautions to minimize the risk of infection. In the event you do become ill with a fever or some other sign of disease, it is important to inform the physician caring for you about the type of work you do with animals.

GENERAL PRECAUTIONS

There are some common sense steps that can be taken to lessen the risk of infection in general. These include cleanliness in routine tasks around animals and hand washing after handling animals. Personnel should protect themselves by wearing gloves and lab coats or other protective clothing, taking enough time to properly restrain animals, and using care when inoculating animals. Particular care should be taken when using needles – needles should never be recapped. Eating, drinking, and smoking are expressly prohibited when working in ULAR animal facilities.

For procedures such as necropsies, bedding changes, and tissue and fluid sampling, biological safety cabinets, physical containment devices, respirators, or other personal safety gear should be used as indicated. All species of animals used in teaching and research have the potential to cause injuries or illness in personnel who work with them. These problems may range from minor allergic reactions to bites or even potentially fatal diseases. All personnel should be aware that laboratory animals (particularly rats, mice, rabbits, guinea pigs, hamsters, cats and monkeys) are sources of potent allergens to sensitized people. Signs of allergic reactions include tearing, burning or itching, sneezing, runny nose, and in severe cases, difficulty in breathing. Allergies may at times become severe and limit the ability to work around animals. Knowledge of the animal, its behavior, and the potential problems associated with the species are essential to prevention of problems.

- Learn about the species of animal with which you will work;
- Know how to properly pick up, handle, and restrain the animal to minimize its stress or possible discomfort;
- Use personal protective equipment such as lab coats, gloves, eye protection, and face mask appropriate for the animals being handled;
- Wash your hands after handling animals;
- Do not eat, drink, chew gum, or apply makeup in animal rooms;

- Use the services of Occupational Health programs to assure proper medical screening appropriate to your job exposure.

You should contact ULAR about specific concerns for working with laboratory animals, and Occupational Health for health concerns.

If you work with RODENTS (e.g. rats, mice, hamsters, guinea pigs)

Because most of our rodents come from carefully monitored breeding colonies and are maintained in a clean environment, the danger of contracting zoonotic diseases is reduced. However, personnel should be aware of the potential problems that can occur when using rodents. Contact with rodents, especially wild caught rodents encountered in field studies, may require special precautions against such diseases Salmonellosis, Hantavirus, Lymphocytic Choriomeningitis, tapeworm infestation, and toxoplasmosis, as well as ringworm and other skin fungal organisms.

Rodent bites are among the most common accidents of personnel handling animals. Any bite should be reported and treated, since it may be infected by organisms from the animal's mouth and may require antibiotic treatment. Animal workers should maintain up to date tetanus immunization. Special care should be taken when trapping or handling wild rodents or aggressive animals. Personnel working with wild rodents must participate in the Occupational Health Program. Allergies to laboratory rodents are quite common in laboratory workers. Reactions include nasal congestion, sneezing, itching of the eyes, and a variety of skin manifestations. Workers with a history of allergies may be more likely to develop allergies to laboratory animals. It is important to protect the mucous membranes of the eyes. Use of masks, gloves, and protective clothing, as well as reducing contact time, may reduce reactions.

If you work with RABBITS.....

Domestic laboratory rabbits used at Drexel University are reared specifically for laboratory use and carry few zoonotic diseases. Rabbits have sharp claws and can inflict serious and painful scratches which may become infected if not thoroughly cleaned at once. The best way to prevent scratches is knowledge of how to properly pick up and restrain the animals. Personnel working with rabbits should wear lab coats with long sleeves to protect their arms. Tetanus immunization should be maintained. Personnel working with rabbits should be aware of allergic reactions. Training for handling and working with rabbits is available through the office of ULAR.

If you work with BIRDS, REPTILES or AMPHIBIANS.....

Good personal hygiene is important when handling and working with these animals. Latex or plastic exam gloves should be worn, and it is important to thoroughly wash your hands after handling turtles and frogs, and other amphibians. Only properly obtained and quarantined animals should be used for teaching demonstrations or research. Turtles and other reptiles frequently harbor Salmonella. The bacteria can cause severe intestinal disease in humans. Salmonella may cause severe diarrhea, vomiting and dehydration.

Some birds have diseases such as avian tuberculosis and psittacosis. Personnel may develop allergies to birds.

If you work with DOGS or CATS.....

Dogs and cats used at Drexel University are reared specifically for laboratory use and carry few zoonotic diseases. They have been vaccinated for rabies and treated for internal and external parasites, if indicated.

Toxoplasmosis is caused by the protozoa Toxoplasma gondii. Cats develop intestinal infection with the shedding of oocysts. The infection in adults is usually inapparent, but can be severe in people with deficient immune responses. Congenital infection in humans results in systemic disease, frequently with severe neurological changes. Pregnant women must be made aware of the potential for congenital toxoplasmosis infection and should avoid areas contaminated with cat feces. Occupational Health services should be consulted before working with cats.

Cats are frequently associated with allergic reactions and personnel handling cats should be aware of the potential for developing allergies.

If you work with FARM ANIMALS (e.g. sheep, pigs).....

Pigs and sheep are procured from farms which have been approved by ULAR to assure that the programs for disease and parasite control are in place. However, some diseases such as Q fever have caused disease in laboratory workers.

Q fever caused by the rickettsia, Coxiella burnetii, is a potentially serious human disease. The organism is shed abundantly from the placental membranes of infected sheep. This route of exposure has been the cause of cases of Q fever pneumonia in laboratory workers. Gloves, facemask and protective clothing are required for individuals working with pregnant sheep. The infection is treated effectively with antibiotics.

Erysipelas in pigs can be transmitted as a severe focal skin infection in man. Pigs showing skin lesions should be handled with care. Similar appearing though less severe skin lesions are also seen on the hands after contact with sheep and goats infected with contagious ecthyma or "orf". Protective clothing and gloves should be worn when working with farm animals.

If you are PREGNANT.....

If you are pregnant or planning to become pregnant, you should confer with your family physician and Occupational Health services prior to continued exposure to laboratory animals, inhalation anesthetics, radiation or potentially toxic chemicals.

If you work with HAZARDOUS AGENTS.....

Good personal hygiene is essential when working with hazardous materials. Personal protective equipment such as masks, respirators, gloves, safety glasses and outer clothing may be required. Hands should be washed after handling chemicals, infectious agents or

animals. Biological and chemical safety cabinets should be available. You should be familiar with any material which you are using. Animal caging and rooms should be labeled to indicate the agent to prevent accidental personnel exposure. If using a new agent for which material safety data sheets indicate the need for medical surveillance, contact Occupational Health services.

IF YOU NEED FURTHER INFORMATION

If you need further information about the Occupational Health program, contact the University Laboratory Animal Resources (ULAR) at 215-762-7970 or the Department of Environmental Health and Safety at 215-895-5907.

**DREXEL UNIVERSITY
OFFICE OF UNIVERSITY LABORATORY ANIMAL RESOURCES (ULAR)
&
DEPARTMENT OF ENVIRONMENTAL HEALTH AND SAFETY

PHILADELPHIA, PA**

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