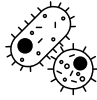


The following is general information for those involved in the care and use of laboratory canines.  
Contact [occupational.health@cuanschutz.edu](mailto:occupational.health@cuanschutz.edu) if you have any questions.

## **POTENTIAL RISKS**



Dogs are very social animals and respond to human interaction and affection. When injured or ill, they can become frightened and agitated and they will bite and resist being handled. In the research setting, exposure to dogs can pose potential health risks to humans, such as infection from dog bites and scratches, allergic responses, and exposure to pathogenic enteric organisms through accidental fecal/oral contact. There are many organisms that may not produce symptoms in dogs but can cause diseases in people.

### **Potential canine zoonoses**

#### **Rabies**

- Rabies virus (rhabdovirus) can infect almost any mammal
  - Rare in research environments
- Virus sheds in saliva 1-14 days before clinical symptoms develop
- Any random-source or wild animal exhibiting central nervous system signs that are progressive should be considered suspected for rabies
- Transmission through contact with saliva, mucus membranes, or blood (e.g. bite or saliva on an open wound)
- Symptoms
  - Pain at the site of bite
    - Followed by numbness
  - Skin becomes sensitive to temperatures changes
  - Laryngeal (throat) spasms
  - Muscle spasms
  - Extreme excitability and convulsions
- Rabies in unvaccinated people is almost invariably fatal

#### **Brucellosis**

- Found in dogs & swine breeding colonies
  - Manifested by abortions and reproductive organ infections

- Transmission to humans not clear but likely through oral or skin contact with organism-infected blood or other tissues
- Symptoms
  - Mimics the flu
  - Fever
  - Headache
  - Fatigue
  - Muscle & joint pain
  - Rare complications: arthritis, meningitis, and endocarditis
- Treated with antibiotics for 4-6 weeks

#### **Leptospirosis**

- Bacteria found in many animals
- Found in the urine of infected animals
- Disease is multi-systemic with chronic sequelae
- Transmission
  - Direct contact with urine or tissues via skin abrasions or contact with mucous membranes
  - Inhalation of infectious droplet aerosols and by ingestion
- Symptoms
  - Annular rash
  - Flu-like symptoms
  - Cardiac and neurological disorders may follow
  - Arthritis a common result

#### **Ringworm**

- Dermatophyte fungi infection commonly known as ringworm due to characteristic circular lesion
- Transmission
  - Direct contact with infected animal
- Symptoms
  - Usually self-limiting & appears as circular, reddened, rough skin
- Responsive to topical therapy

#### **Other diseases associated with contact with canines:**

- Tuberculosis, Cryptosporidium, Giardia, Campylobacter, Salmonella

## **ALLERGIC REACTIONS TO CANINES**



Individuals who have been previously sensitized to dogs outside of the work place may be at greater risk or developing allergies to dogs.

- Exposure to dog allergens is via
  - Saliva
  - Hair
  - Skin
- Primary symptoms
  - Nasal or eye symptoms
  - Skin disorders
  - Asthma
- Contact Occupational Health if you develop allergic symptoms

## **HOW TO PROTECT YOURSELF**



### **Wash your hands**

- Single most effective preventative measure
- Regular, thorough hand washing
- Wash hands and arms after handling any animal
- Never drink or eat in the animals rooms or before washing your hands

### **Wear gloves**

- When working with canines, wear appropriate gloves for the task
- Wash your hands after removing gloves

### **Wear respiratory protection**

- Respiratory protection should be worn when there is risk of aerosol transmission of zoonotic agents
- Respiratory protection should be worn when there is a medical history or symptoms of allergies
- Initial Medical Evaluation for respiratory clearance is performed through Occupational Health
- Fit testing is performed through Industrial Hygiene once clearance is complete through Occupational Health

### **Wear other protective clothing**

- Disposable gowns are required to be worn in the vivarium
- Consider changing clothing before leaving work. Place dirty clothing in a bag and launder clothes at home before wearing again.

### **Follow proper exposure reporting protocols**

- If you are injured on the job, promptly report the incident to your supervisor
  - Immediately call or email Occupational Health (303) 724-9145 during business hours
    - Outside of normal hours seek medical attention at emergency department or other healthcare provider
  - Fill out incident report for exposure to biological hazards
  - File a claim with University Risk Management
    - <https://www.cu.edu/risk/file-claim>
- Minor cuts and abrasions should be immediately cleansed with antibacterial soap
  - Protect injuries from exposure

### **Tell your physician you work with canines**

- Whenever you are ill, mention to your physician that you work with canines
- Many zoonotic diseases have flu-like symptoms

**For more information, refer to the Occupational Health website**  
<https://research.cuanschutz.edu/ehs/home/divisions/occupational-health>



**or contact Occupational Health at [occupational.health@cuanschutz.edu](mailto:occupational.health@cuanschutz.edu)**