**Bacterial infection**

Spread through direct contact or aerosolized droplets

**Symptoms**
- Sudden onset diarrhea, nausea, abdominal pain, and low-grade fever
- Can have effects on fetal health if exposed during pregnancy
- Treated with antibiotics

Infection with gram-negative bacterium

Thought to occur by fecal-oral route through contaminated food or water, or direct contact with infected fecal material

**Symptoms**
- Acute gastrointestinal illness
  - Diarrhea with or without blood
- Abdominal pain
- Fever
- Pseudo-appendicitis
- Rare: septicemia and arthritis
- Usually brief and can be treated with antibiotics

**Potential ferret zoonoses**

**Listeriosis**
- Bacterial infection
- Spread through direct contact or aerosolized droplets
- Symptoms
  - Sudden onset diarrhea, nausea, abdominal pain, and low-grade fever
- Can have effects on fetal health if exposed during pregnancy
- Treated with antibiotics

**Campylobacteriosis**
- Infection with gram-negative bacterium
- Thought to occur by fecal-oral route through contaminated food or water, or direct contact with infected fecal material
- Symptoms
  - Acute gastrointestinal illness
    - Diarrhea with or without blood
  - Abdominal pain
  - Fever
  - Pseudo-appendicitis
  - Rare: septicemia and arthritis
- Usually brief and can be treated with antibiotics

**Influenza**
- Contagious respiratory illness caused by influenza viruses
- Spreads through droplets (coughing, sneezing, talking) or through touching surfaces with flu virus on it then touching the mouth, nose, or eyes
- **Symptoms**
  - Fever
  - Cough
  - Sore throat
  - Runny or stuffy nose
  - Muscle or body aches
  - Headache
  - Fatigue
- Severity may be lessened by getting an annual flu shot

**COVID-19**
- Viral infection spread through respiratory droplets
- **Symptoms**
  - Sore throat
  - Cough
  - Shortness of breath
  - Fever
  - Headache
  - Chills or body aches
  - Fatigue
  - Loss of taste or smell
- Severity may be lessened by getting COVID-19 primary series and staying up-to-date with booster shots
- Can have effects on fetal health if infection occurs during pregnancy

**Potential reverse zoonoses**

**Influenza**
- Contagious respiratory illness caused by influenza viruses
- Spreads through droplets (coughing, sneezing, talking) or through touching surfaces with flu virus on it then touching the mouth, nose, or eyes
- **Symptoms**
  - Fever
  - Cough
  - Sore throat
  - Runny or stuffy nose
  - Muscle or body aches
  - Headache
  - Fatigue
- Severity may be lessened by getting an annual flu shot

**COVID-19**
- Viral infection spread through respiratory droplets
- **Symptoms**
  - Sore throat
  - Cough
  - Shortness of breath
  - Fever
  - Headache
  - Chills or body aches
  - Fatigue
  - Loss of taste or smell
- Severity may be lessened by getting COVID-19 primary series and staying up-to-date with booster shots
- Can have effects on fetal health if infection occurs during pregnancy

The following is general information for those involved in the care and use of laboratory ferrets. Contact occupational.health@cuanschutz.edu if you have any questions.
**ALLERGIC REACTIONS TO FERRETS**

The greatest occupational risk to working with ferrets is allergic reaction or developing allergies.

- Those with other allergies at greater risk
- Dander, hair, scales, fur, saliva, and body waste (urine in particular) contain powerful allergens
  - Cause both skin disorders and respiratory symptoms
- Primary symptoms
  - Nasal or eye symptoms
  - Skin disorders
  - Asthma

**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 ferrets, 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 Occupational Health (303) 724-9145
  - File a claim with University Risk Management
    - [https://www.cu.edu/risk/file-claim](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 ferrets**
- Whenever you are ill, mention to your physician that you work with ferrets
- 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](https://research.cuanschutz.edu/ehs/home/divisions/occupational-health)

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