

# Zoonotic Diseases by Routes of Transmission

## Companion Animals

This handout lists the potential routes of transmission of select zoonotic diseases from animals to humans.

Additional routes of transmission may occur between animals.

## Direct Contact and Fomite

*These diseases may be spread by bite, scratch, direct contact with animal tissues or fluids, including urine, feces, and saliva. Disease transmission may also occur indirectly by contact with contaminated inanimate objects (fomites), such as leashes or brushes.*

- Acariasis (mange)
- Anthrax
- Avian Influenza
- Brucellosis
- Cat Scratch Disease
- Dermatophytosis
- Glanders
- Melioidosis
- Monkeypox
- Mycobacteriosis
- Nipah
- Pasteurellosis
- Plague
- Q Fever
- Rabies
- Rat Bite Fever
- Sporotrichosis
- Streptococcosis
- Tularemia

## Oral

*These diseases can be transmitted by ingestion. This may occur by consuming infective feces (such as through soil contact, unwashed hands, or contaminated fruits and vegetables) or fecally contaminated food or water.*

- Avian Influenza
- Baylisascariasis
- Campylobacteriosis
- Chlamydiosis (mammalian)
- Cryptosporidiosis
- *Escherichia coli* O157:H7
- Echinococcosis
- Giardiasis
- Hookworms
- Larva Migrans
- Salmonellosis
- Toxoplasmosis
- Tularemia
- Yersiniosis

## Aerosol

*These diseases can be transmitted through the air by droplet transfer, fluids aerosolized from an animal to a person (e.g., sneezing or cough) or by aerosolized materials which are inhaled.*

- *Bordetella* Infection
- Cryptococcosis
- Hantavirus
- Melioidosis
- Nipah
- Plague
- Psittacosis
- Q Fever
- Streptococcosis
- Tularemia

## Vector-borne

*These diseases are transmitted by an arthropod vector.*

### FLEAS

- Plague

### MOSQUITOES

- West Nile Encephalitis

### TICKS

- Ehrlichiosis
- Leishmaniasis
- Lyme Disease
- Q Fever
- Rocky Mountain Spotted Fever
- Tularemia

### TRIATOMINE

- (“kissing bugs”)
- Trypanosomiasis (Chagas’ disease)



IOWA STATE UNIVERSITY®

Center for Food  
Security and Public Health  
College of Veterinary Medicine  
Iowa State University  
Ames, Iowa 50011  
Phone: (515) 294-7189  
FAX: (515) 294-8259  
E-mail: cfsph@iastate.edu  
Web: www.cfsph.iastate.edu