

Health and Safety During a Response: Zoonoses Risks and Prevention



During an animal disease emergency, the animal disease being controlled may also be of concern to human health. Taking appropriate preventive measures can protect responders from zoonotic disease exposure and possible illness.

Zoonotic Disease

- Disease of animals transmitted to humans under natural conditions.

Zoonotic Disease Transmission

- Direct contact
 - Body fluids (urine, feces, saliva, blood, milk)
 - Tissues (lesions, carcass, parturition)
- Aerosol
 - Droplets spread through the air
 - Requires close proximity
 - Exposure: enclosed barns, coughing, sneezing, contaminated soil or dust
- Ingestion
 - Contaminated food or water
 - Contaminated meat from infected animal
- Fomites
 - Contaminated inanimate objects
 - E.g., buckets, shovels, vehicles, clothing
- Vector
 - Living organism transfers disease between animals, generally insect
 - Mosquitoes, ticks, biting midges, flies
- Environment
 - Soil, organic material

Points to Remember

- Animals may not exhibit obvious signs of disease
- Not all pathogens spread by all routes of transmission

Preventing Exposure

- Hand washing
 - After animal contact
 - Before eating, drinking
- Limit contact with animals
- No food or drink in animal areas

- Personal Protective Equipment (PPE)
 - Gloves
 - Creates a barrier between you and the disease
 - Especially for hands with cuts, abrasions, chapped
 - Wash hands after removing gloves
 - Coveralls, boots
 - Mask, goggles
- Cleaning and Disinfection
 - Manure properly handled and removed
 - Clean, disinfect soiled equipment
 - Clean and disinfect (or dispose of) PPE after response activity
 - Wash hands after removing any PPE
- Minimize aerosol exposure
 - Adequate ventilation
 - Control dust
 - Wear masks in certain situations
 - Handling infectious animals or tissues
 - Assisting with calving
 - Power washing
- Vector Control
 - Source reduction/habitat elimination
 - Parasitic or predatory insects
 - Insecticides
 - Minimize interaction with insects
 - Personal protection
 - Insect repellents containing DEET
 - Wear long sleeves and pants

Additional Resources

Center for Food Security and Public Health. Zoonotic Disease Resources.

<http://www.cfsph.iastate.edu/Zoonoses/zoonotic-disease-resources.php>

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