

Anthrax

Anthrax is primarily spread through contact with the spores of infected animals during necropsy or slaughter. Animals infected with anthrax may bleed from orifices after death due to coagulation impairment. Necropsies should be performed with caution.

Avian Influenza

Human infections with bird flu viruses seldom occur, but can happen through contact with bird excreta, nasal or oral secretions, or contaminated surfaces.

Bovine spongiform encephalopathy (BSE)

When cattle are fed ruminant by-products such as bone meal it can result in BSE. Humans come in contact with infected animals through the ingestion of prion-containing tissues. The prion is not destroyed by cooking; therefore, it's important to avoid consuming cattle exhibiting neurologic signs and use caution when handling tissues during necropsies.

Brucellosis

Brucella abortus is a bacterial infection that can be transmitted to humans if they come into contact with infected animals or animal products. It is crucial to handle bodily fluids with caution and avoid consuming raw meat or milk products to prevent the spread of this disease.

Campylobacteriosis

People can contract *Campylobacter* infections through the ingestion of contaminated water, raw milk, and undercooked meat as well as direct contact with feces, reproductive tissues, and contaminated soil.

Chlamydiosis

Humans can contract *Chlamydia* through inhalation and direct contact with infected reproductive tissues/fluids. To prevent exposure, wash hands thoroughly and wear gloves, masks, and coveralls when handling aborted fetuses or reproductive tissues. Always clean and disinfect boots following farm visits.

Contagious Ecthema (Sore Mouth or Orf)

Human *parapoxvirus* infections typically occur when the virus comes into contact with broken skin due to contact with infected animals or contaminated equipment. Activities such as bottle feeding, tube feeding, or shearing sheep or goats can increase the risk of contracting orf.

Cryptosporidiosis

The parasite *Cryptosporidium* causes severe diarrhea in humans who come into contact with contaminated feces from calves. Always wear personal protective equipment (PPE) when handling sick calves to prevent exposure.

Cysticercosis/ Taeniasis (Tapeworm)

Humans contract the beef or pork tapeworm when they consume raw or undercooked beef or pork.

Dermatophytosis (Ringworm)

Ringworm is a fungal skin disease. It gets its name from the characteristic ring-like rash on the skin. The disease is spread by touching an infected animal.

Escherichia coli

Contaminated food, such as undercooked ground beef or raw milk, is the main source of *E. coli* infections in people, but they can also get it directly from the stool of young calves and adult cattle.

Giardiasis

Humans can contract giardia by ingesting larval cysts in raw or undercooked meat or by consuming contaminated fruits, vegetables, water, or soil.

Leptospirosis

Wildlife can spread *Leptospira* bacteria by contaminating water sources with infected urine. Since many farm animals have ponds or creeks as water resources, they are at a high risk of contracting the disease. Therefore, it is important to be cautious and use PPE when performing farm animal reproductive services to limit human exposure.

Listeriosis

Humans contract *Listeria* from consuming contaminated deli meats, meat spreads, and raw dairy.

Q fever

Q fever is a disease caused by the bacteria *Coxiella burnetii*. This bacteria infects goats, sheep, and cattle. *C. burnetii* bacteria are found in the placenta, amniotic fluid, urine, feces, and milk of infected animals. People can also get infected by breathing in dust that has been contaminated by infected animal feces, urine, milk, and birth products.

Rabies

Rabies is a fatal but preventable viral disease that can spread to people through saliva if they are bitten by a rabid animal. Always wear gloves when performing an oral examination on a production animal to limit potential exposure to the virus.

Salmonella

People can contract *Salmonella* if they do not wash their hands after contact with animals carrying *Salmonella* or items in their environment, such as their bedding, food, or water.

Staphylococcus & Streptococcus

People can contract staph and strep bacterial infections when they come in direct contact with contaminated animal tissues or consume raw and dairy products. Wear PPE when handling patients with wounds and mastitis.

Swine Influenza Type A Virus

When people get swine flu, it's usually after contact with infected pigs or surfaces in environments like a swine barn contaminated with swine flu type A virus.

Tuberculosis (Mycobacterium bovis)

Mycobacterium bovis causes zoonotic tuberculosis in humans. The most common routes of transmission of the agent to humans are airborne transmission, consumption of unpasteurized milk, and direct contact with infected animals.

Resources:

<https://www.cfsph.iastate.edu/Assets/zoonotic-diseases-of-cattle-table.pdf>

<https://www.cdc.gov/healthypets/diseases/index.html>