

Infections acquired from animals are called Zoonoses. These infections normally occur in vertebrate animals (animal with a spinal cord) and can be passed on to humans who come in contact with the animal. This may happen directly through work (eg farmers) or leisure activities such as keeping pets or indirectly through contact with food and water.

Zoonotic diseases can be transmitted to humans in various ways which vary depending on the specific disease. In addition to direct contact with animals they may be transmitted by:



- transmission from person to person
- inhalation of spores / contaminated dust
- consumption of unpasteurised milk / dairy products or undercooked/contaminated food
- consumption of contaminated water
- skin exposure to spores / contaminated water
- animal or insect bites/scratches

PHA undertakes surveillance of a range of zoonotic infections.

## Epidemiological Data

The latest laboratory confirmed cases of zoonotic disease in humans in Northern Ireland can be viewed at [NI Zoonoses website data.xlsx](#)

England and Wales epidemiological data can be viewed at:

<https://www.gov.uk/government/collections/zoonotic-diseases-zoonoses-guidance-data-and-analysis>

## Table of Zoonotic Diseases and Organisms

Disease	Organism	Main reservoirs	Usual mode of transmission to humans
Anthrax	Bacillus anthracis	livestock, wild animals, environment	direct contact, ingestion
Avian influenza	Influenza virus, avian strains	poultry, ducks	direct contact
Bovine tuberculosis	Mycobacterium bovis	cattle	milk
Brucellosis	Brucella species	cattle, goats, sheep, pigs	dairy products, milk
Cryptosporidiosis	Cryptosporidium species	cattle, sheep, pets	water, direct contact
Enzootic abortion	Chlamydia abortus	farm animals, sheep	direct contact, aerosol
Hantavirus syndromes	Hantaviruses	rodents	aerosol
Hydatid disease	Echinococcus granulosus	dogs, sheep	ingestion of eggs excreted by dog
Leptospirosis	Leptospira species	rodents, ruminants	infected urine, water
Listeriosis	Listeria monocytogenes	cattle, sheep, soil	dairy produce, meat products
Lyme disease	Borrelia burgdorferi	ticks, rodents, sheep, deer, small mammals	tick bite
Pasteurellosis	Pasteurella multocida	dogs, cats, many mammals	bite/scratch, direct contact
Psittacosis	Chlamydia psittaci	birds, poultry, ducks	aerosol, direct contact
Q fever	Coxiella burnetii	cattle, sheep, goats, cats	aerosol, direct contact, milk, fomites
Rabies	Rabies viruses	dogs, foxes, bats, cats	animal bite
Ringworm	Dermatophyte fungi	cats, dogs, cattle, many animal species	direct contact
Streptococcal sepsis	Streptococcus suis	pigs	direct contact, meat
Streptococcal sepsis	Streptococcus zooepidemicus	horses, cattle	direct contact, milk
Toxocariasis	Toxocara canis/cati	dogs, cats	direct contact
Toxoplasmosis	Toxoplasma gondii	cats, ruminants	ingestion of faecal oocysts, meat
Trichinellosis	Trichinella spiralis	pigs, wild boar	pork products

For further information on Zoonotic Diseases and Organisms [click here](#).

## Zoonoses acquired at work

Many zoonotic infections may be contracted at work usually through direct contact with infected animals. The true incidence of zoonoses acquired at work in the UK is unknown for most infections.

Specific regulations apply in the workplace to prevent, control the spread of, and report zoonotic infections. These are detailed below:

### **Regulations applicable in the occupational setting**

#### 1. Control of Substances Hazardous to Health (COSHH) 2002.

Micro-organisms which are hazardous to human health are included as substances hazardous to health in these regulations. As potentially zoonotic pathogens may be present wherever there are animals, an assessment of the hazard and its associated risk must be undertaken in such situations, and appropriate controls put in place.

Detailed advice on this process is available from the HSE -

<http://www.hse.gov.uk/risk/fivesteps.htm>

#### 2. Reporting of Injuries diseases and dangerous occurrences (RIDDOR) 1985

[www.hse.gov.uk/riddor/riddor.htm](http://www.hse.gov.uk/riddor/riddor.htm)

Reporting accidents and ill health at work is a legal requirement, and included under the legislation are occupationally-acquired zoonoses.

### **Occupational settings**

A wide variety of occupations and premises exist where contact with animals or their products may occur. These include professions such as abattoir workers, farmers and farm workers and forestry workers.

## **Links**

### **For further information on Zoonoses see:**

- Public Health England - <http://www.hse.gov.uk/risk/controlling-risks.htm>

- Department of Department of Agriculture, Environment and Rural Affairs - <https://www.daera-ni.gov.uk/articles/zoonotic-diseases>

**For further information on Lyme disease see:**

- <https://www.nice.org.uk/guidance/ng95>
- <https://www.gov.uk/government/collections/lyme-disease-guidance-data-and-analysis>
- <https://www.gov.uk/government/publications/tick-bite-risks-and-prevention-of-lyme-disease>

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