

Diseases that can be Transmitted from Animals to Humans

(Zoonoses)

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INTRODUCTION

Diseases that can spread from animals to humans are known as zoonoses. This Agnote briefly describes the common zoonoses found in the Northern Territory (NT).

METHODS OF TRANSMISSION

Some zoonoses can be spread by pets, while others are spread by wildlife or feral animals. Also, some diseases can infect both humans and animals but are commonly not spread directly, but through a medium, such as water. The following table lists some zoonoses that have occurred or could occur in the NT and the animals that are likely to pass the diseases to humans and the method of transmission.

Disease	Animals affected	How the disease spreads
1. Diseases of wild and feral animals		
Australian bat lyssavirus	Fruit bats and insectivorous bats	No people are known to have been infected with this in the NT, but the virus is present in several species of bats. It can cause a fatal disease in humans, similar to rabies. People should avoid handling bats and should seek advice immediately if bitten or scratched.
Hendra virus infection	Bats and horses	The virus is carried by bats but can cause severe, fatal disease in horses, which can then be passed on to humans handling the horse. Any horse that has a sudden onset of disease with fever and respiratory or neurological signs should be checked as soon as possible by a vet. Owners should use personal protection when in contact with the sick horse. See web links below for more information.
Q fever (<i>Coxiella burnetii</i>)	Cattle and goats	This is a serious flu-like illness. It is transmitted by handling tissues and fluids of infected animals, especially pregnant animals.
Scrub typhus (<i>Orientia tsutsugamushi</i>)	Native rats and mites	Mites usually spread this infection to native rats. Humans can get infected if bitten by an infected mite. People have been infected with this disease in Litchfield Park.
Sparganosis (<i>Spirometra erinacei</i>)	Snakes, lizards, fish, birds and wild pigs	This disease is caused by a type of tapeworm cyst in undercooked meat. The cysts can be found in tissues of many species of animals.

Disease	Animals affected	How the disease spreads
2. Diseases of pet animals		
Cat scratch disease (<i>Bartonella henselae</i>)	Cats	The bacterial infection is spread by scratches from claws of cats. It causes swelling of the lymph nodes (glands) and fever in humans.
Helminth infections	Dogs and cats	Intestinal parasites (roundworms, hookworms) of dogs and cats that can cause a variety of diseases in humans.
Psittacosis or Ornithosis (<i>Chlamydia psittaci</i>)	Parrots, pigeons and other birds	Bacterial infection causing a flu-like disease and respiratory infection in humans. It is spread by close contact with birds or their droppings.
Ringworm	Mainly kittens and puppies	Fungal skin disease spread by contact. Also spreads directly between people.
Toxoplasmosis (<i>Toxoplasma gondii</i>)	Cats	This is a parasite that can be caught by handling cat faeces. It can cause miscarriage or damage to the foetus in pregnant women.
3. Diseases spread through water and other indirect contacts		
Crypto-sporidiosis	Many different animals and people	A parasite in faeces, which is spread by direct contact or through water. It causes diarrhoea in humans.
Giardia	Dogs, birds and other animals	This is another parasite that causes diarrhoea. It is most commonly spread directly between people; however it can also spread through water infected by animal droppings.
Leptospirosis	Cattle, rats, dogs and pigs	This is a serious bacterial disease that spreads through urine and water. It commonly occurs naturally in rats. Native rats in areas such as Fogg Dam carry the infection.
Melioidosis (<i>Burkholderia pseudomallei</i>)	Pigs, goats, sheep and other animals	This is a bacterial disease, usually picked up from the soil, rather than from animals, especially in the wet season. It affects both animals and humans, causing serious disease.

WHERE CAN YOU FIND MORE INFORMATION?

For detailed information on these diseases in the NT, contact the Centre for Disease Control (CDC), NT Government. They also have comprehensive disease fact sheets on the internet.

CDC:

Darwin	8922 8044	Tennant Creek	8962 4259
Katherine	8973 9049	Alice Springs	8951 7540
Nhulunbuy	8987 0357	Internet address:	

http://www.health.nt.gov.au/Centre_for_Disease_Control/index.aspx

Other useful information on zoonoses can be found on the Queensland Government web site at <http://www.dpi.qld.gov.au/4790.htm>. Note that not all the diseases found in Queensland are present in the NT.

Hendra virus information sheets are available from the NTG web site for horse owners and veterinarians, respectively. http://www.nt.gov.au/d/Content/File/p/Anim_Dis/hendra_virus_horseowners_web.pdf and http://www.nt.gov.au/d/Content/File/p/Anim_Dis/hendra_virus_vets_final.pdf.

There is also a comprehensive information booklet on Hendra virus available from the Queensland Government web site at http://www.dpi.qld.gov.au/documents/Biosecurity_GeneralAnimalHealthPestsAndDiseases/Hendra-GuidelinesForVets.pdf.

DISEASE PREVENTION

The risk of infection by many zoonoses can be greatly reduced through taking simple hygienic precautions, such as:

- Wash hands well after handling animals or birds and before touching food.
- Do not put unwashed fingers in your mouth.
- Worm pets regularly and seek veterinary assistance if your pet is unwell or you notice skin disease, diarrhoea or other disease.
- Wear gloves when handling animal faeces, litter trays etc. If pregnant, avoid handling animal faeces and litter trays.
- Cook all meat well, especially game meat, such as wild pigs.
- Wear gloves when handling game meat and wash hands well afterwards.
- Do not handle sick or injured bats. Call an NT Parks and Wildlife ranger, animal carer or veterinarian for assistance.
- Wear gloves and shoes when gardening and avoid walking through wet boggy areas with bare feet.

Specific precautions for the different zoonoses are given in the NTG CDC disease fact sheets and the Queensland Government Notes.

Please visit us at our website:

www.nt.gov.au/d

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