



Zoonotic Diseases in Dogs

What is a zoonotic disease?

Zoonotic disease or *zoonoses* are terms used to describe an infection or disease that can be transmitted from an animal to a human being.



Are there many zoonoses?

Altogether, well over a hundred diseases are capable of being transmitted from animals to humans, although most are rare in North America. All domestic animals including dogs, cats, birds, horses, cows, sheep, goats and rabbits can potentially spread diseases to people, but rarely does this actually occur. If pet owners exercise basic hygiene

principles, especially hand washing, most of these potential diseases can be avoided.

How great is the risk of contracting a zoonotic disease from my dog?

Current evidence supports the fact that pet dogs pose a minimal zoonotic risk to their human companions. Your risk may be slightly higher if you have a compromised immune system from disease or medication, such as:

- People with AIDS/HIV
- People on chemotherapy or receiving radiation therapy
- People who are elderly or have chronic diseases
- People with congenital immune deficiencies
- People who have received organ or bone marrow transplants
- Pregnant women (a fetus's immune system is not fully developed, and the pregnant woman's immune system is altered so that she won't reject the fetus)

"If you fall into one of these categories, it doesn't mean you have to give up your pet!"

If you fall into one of these categories, it doesn't mean you have to give up your pet! It simply means that you should take some basic precautions such monitoring your dog for any signs of illness, washing your hands after extensive handling of your dog, and avoiding direct contact with your dog's feces or urine. **"... the benefits of having a pet far outweigh the risks."**

It is important to keep in mind that numerous studies prove that the benefits of having a pet far outweigh the risks. Sharing your home with a pet is often just what the doctor ordered!

What are the most common zoonotic diseases of dogs?

- Ringworm
- Salmonellosis
- Leptospirosis
- Lyme disease
- Campylobacter infection
- *Giardia* infection
- Cryptosporidium infection
- Roundworms
- Hookworms
- Scabies
- Harvest mites
- Rabies



What are the most common infections I could contract from an animal?

While the risk of contracting any of these illnesses is low, here is a list of common zoonotic diseases. Note that many of these infections are the result of eating undercooked meat, fish and poultry, or involve exotic animals and travel.

Which of these are more likely to cause serious illness to humans? Rabies, caused by a virus, is almost invariably fatal in man.

Certain infectious organisms, such as the bacteria *Salmonella* and *Campylobacter* and the protozoan disease caused by *Giardia*, can cause severe gastroenteritis.

Anisakiasis	Lymphocytic Choriomeningitis
Anthrax	Malaria
Babesiosis	Paralytic Shellfish Poisoning
Brucellosis	Plague, Human or Animal
Campylobacteriosis	Psittacosis
Ciguatera Fish Poisoning	Q Fever
Colorado Tick Fever	Rabies, Human or Animal
Cryptosporidiosis	Rocky Mountain Spotted Fever
Cysticercosis	Salmonellosis (Other than Typhoid Fever)
Dengue	Scombroid Fish Poisoning
Dermatophytosis (Ringworm)	Swimmer's Itch (Schistosomal Dermatitis)
Domoic Acid Poisoning (Amnesic Shellfish Poisoning)	Toxoplasmosis
Echinococcosis (Hydatid Disease)	Trichinosis
Ehrlichiosis	Tuberculosis
Encephalitis (specify etiology)	Tularemia
<i>Escherichia coli</i> 0157:H7 Infection	Viral Hemorrhagic Fevers (e.g., Crimean-Congo, Ebola, Lassa and Marburg viruses)
Food borne disease	Water-associated Disease
Giardiasis	Yellow Fever
Hantavirus Infections	Yersiniosis
Leptospirosis	
Listeriosis	
Lyme Disease	

Leptospirosis, known as Weil's disease in man, can cause extremely serious liver and kidney disease but the transmission from dogs to humans is very rare. Humans usually contract this disease from exposure to contaminated water.

Roundworms (*Toxocara canis*) and tapeworms (*Echinococcus species*) can cause liver problems, but illness in man from these causes is rare. Direct handling of infected dog feces can potentially cause an infection of *Toxocara canis* in a susceptible person. *Echinococcus* tapeworms are very rare in dogs, and humans cannot directly become infected from a dog (tapeworm infections require an intermediate host for transmission).

Zoonotic skin diseases including ringworm, caused by the fungus *Microsporum canis* and scabies, caused by the mite *Sarcoptes scabiei*, Cheyletiella, and Harvest Mites (*Trombicula species*) are transmitted relatively easily to people through direct physical contact.

How can I reduce the risk of contracting one of these diseases from my dog?

"Simple hygiene and common sense will drastically reduce if not eliminate the risk of zoonotic spread of disease from dog to man."

Simple hygiene and common sense will drastically reduce if not eliminate the risk of zoonotic spread of disease from dog to man. Some of the things you can do include:



- Make sure that any sign of illness or disease in your dog is diagnosed and treated promptly by your veterinarian. If your dog is sick, make sure you wash your hands after any contact.
- Bathe and groom your dog regularly. This will increase the chance of early detection of any skin lesions.
- Give your dog a broad-spectrum deworming product on a regular basis. The simplest way to do this is to use a monthly heartworm product that includes a dewormer. Wear gloves when gardening or working in areas where dogs, cats or other animals may have urinated or defecated.
- Pick up any feces on your property and "stoop and scoop" when you take your dog for a walk. Dispose of all waste materials promptly and safely.
- Do not allow your pets to contact children's feces.
- Always ensure you wash your hands after handling any animal.
- Provide separate food and water dishes for your dog, and wash and store them separately from your family's dishes and bowls.

- Wash pet bedding frequently.
- Use flea and tick control products on a routine basis.

Following these simple precautions ensures you have done everything to reduce any risk to you and your family.

Can I transmit disease to my dog? Transmission of disease can also be from human to dog. Sore throats, tuberculosis and fleas are common examples. Additionally, enteritis due to *Campylobacter* and *Salmonella* infections can be passed from an infected family member to the family dog.

This client information sheet is based on material written by: Ernest Ward, DVM
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