

## Zoonotics

### Diseases which can be transmitted between humans and dogs

To protect both humans and dogs, be aware of these diseases that can be passed between them. For more information about these diseases, please visit the Centers for Disease Control and Prevention's website:

<https://www.cdc.gov/healthypets/pets/dogs.html>

#### Broken Skin Pathogens

**MRSA (Methicillin Resistant Staphylococcus Aureus)** – *skin-to-skin transmission, infecting any open wounds* – MRSA is the bane of modern hospitals. It is the number one infection passed via the hands of healthcare workers and/or visitors. Dogs can carry MRSA from patient to patient, and/or can become infected in any open sores.

**Pasteurellosis (Pasteurella spp.)**– *normal bacteria in dog saliva* – 50% of patients with infected dog bites are infected with Pasteurella. These bacteria are present in virtually all dog mouths and are the biggest reason why we should never allow our dogs to lick a human open wound.

**Yeast (Candida spp.)** – *skin-to-skin transmission, infects irritated skin and open wounds* – Certain strains are capable of infecting open wounds, mucous membranes, and irritated skin.

#### Intestinal Parasites

**Roundworms (Toxocara spp.)** - *fecal transmission* - Dogs can get this by eating grass or mouthing toys, rocks, etc. in infected areas.

**Hookworms (Ancylostoma spp., Uncinaria stenocephala)** - *fecal transmission* - Dogs may get these worms by simply walking through an infected area - larva can burrow into dog footpads.

**Tapeworm (Dipylidium caninum, Echinococcus granulosus)** - *fecal transmission* - This worm is primarily carried by fleas **which a dog may ingest when grooming**. As a precaution, your dog should be wormed after a flea infestation. **Tapeworms can then be spread through contact with feces from an infected dog.**

**Giardiasis (Giardia spp.)** - *fecal transmission* - This is a protozoan that contaminates water. It causes moderate to severe diarrhea in both dogs and humans. Giardia is the most common water contaminate in the U.S.

**Cryptosporidiosis (Cryptosporidium spp.)** - *fecal transmission* - This is another parasite that is found in contaminated water. It also causes diarrhea and fever.

Tapeworms can then be spread through contact with an infected dog's feces.

#### Bacterial Infections

**Brucellosis (Brucella canis)** - *urine transmission* - This bacteria is primarily sexually transmitted but can be transferred by contact with contaminated urine or infected tissues.

**“C. Diff” (Clostridium difficile)** - *fecal transmission* - This bacteria is all too common and is frequently transmitted from patient to patient in long-term care facilities. It has been recently shown also to infect dogs. In both humans and dogs, C. Diff causes diarrhea and fever.

**Camphlobacteriosis (Camphlobacter spp.) and Salmonellosis (Salmonella spp.)** - *fecal transmission* - These bacteria are acquired by ingesting contaminated food or contaminated fecal matter.

**Capnocytophaga canimorsus** – This bacteria is commonly found in the saliva of dogs and cats is not usually harmful to humans, but can be when there are pre-existing conditions that affect the immune system.

**Leptospirosis (Leptospira spp.)** - *primarily urine transmission, but may be transmitted by any body fluid except saliva* - Outbreaks of this bacterium are on the rise in certain parts of the U.S., particularly in the South. It is transmitted by other animals' urine, especially hooved stock and rodents. Vaccination is available through your vet.

**Q Fever (Coxiella burnetii)** - *body fluid and fecal transmission* - Humans are highly susceptible to this rare bacterium.

**Yersiniosis (Yersinia enterocolitica)** - *fecal transmission* - These bacteria are acquired by ingesting contaminated food or contaminated fecal matter.

### **External Parasites/Diseases Carried by Ectoparasites**

**Ehrlichiosis (Ehrlichia spp.)** – *tick-borne bacteria transmitted by blood/blood contact* - Infected dogs will be feverish, lethargic, and have very pale mucous membranes.

**Rocky Mountain Spotted Fever (Rickettsia rickettsii)** – *tick-borne bacteria transmitted by blood/blood contact* - Infected dogs will be feverish, disoriented, and show joint pain similar to arthritis.

**Lyme Disease (Borrelia burgdorferi)** – *tick-borne bacteria transmitted by blood/blood contact* - Symptoms include swollen joints, difficulty in moving, and fever.

**Plague (Yersinia pestis)** - *bacteria carried by fleas* - Dogs will be feverish and lethargic. Plague is carried by fleas but may also be acquired directly from an infected rodent.

**Sarcoptic Mange, Scabies (Sarcoptes scabiei)** - *skin-to-skin contact* - This is a microscopic insect that infects the dog's skin, resulting in hair loss. It can easily be transferred to humans by direct contact. NOTE - dogs also can develop a skin outbreak by a related parasite called demodectic mange that is not contagious. Demodectic mange is to dogs as dust mites are to humans - always present but only cause skin infections in very young, very old or immune-compromised animals.

### **Fungal (Mycotic) Diseases**

**Ringworm (Dermatomycosis)** - *transmission by skin-to-skin contact* - This is a skin infection that looks like concentric circles or worms under the skin but is actually a fungus. It can be highly contagious to both dogs and humans.

### **Viruses**

**Rabies** – Vaccine is available through a veterinarian.

### **SPECIAL NOTE:**

**In many facilities, the staff is no longer using “CONTACT PRECAUTIONS” or “ISOLATION” signs because they are concerned about the patients’ privacy. If there is a sign on the door, it might read “All Visitors Must Check in at the Nurse’s Station.” There may be no obvious sign(s) but there may be gowns and gloves next to the door. Always check with a nurse or supervisor before entering a room with a sign and/or protective**

**equipment. This is to protect you, your dog and the next patient/resident whom your dog visits.**