

## Zoonotic Diseases in Dogs

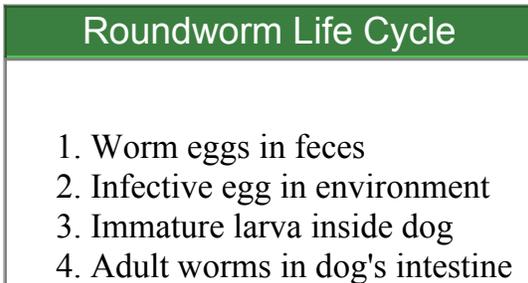
Drs. Foster & Smith Educational Staff

A "ZOONOTIC" (pronounced zoe-o-NOT-ick) DISEASE is one that passes from animals to humans. Infants, the elderly, individuals with compromised immune systems or with poor hygiene habits, and animal healthcare workers are at the highest risk of contracting these illnesses. Veterinarians play a critical role in managing zoonoses since they are in a position to direct pet owners to their personal physicians when they diagnose a zoonotic disease.

### COMMON ZOONOTIC DISEASES

**RABIES** The rabies virus is transmitted through a bite and saliva from an infected animal. The virus attacks the brain and spinal cord. By the time the clinical signs are apparent, the situation is critical and, almost certainly, fatal. Fortunately, immediate treatment with rabies immune globulin after contact with an infected animal's saliva is highly effective.

**PARASITES** Roundworms and hookworms can infect dogs and cats that roam outdoors, where they may contact environments and animals infected with these intestinal parasites. Puppies and kittens can contract the parasite through a mother's milk. Puppies can also be infected during pregnancy. Eggs of these parasites are passed in the stool. Human contact with fecal-contaminated soil or litter can result in subsequent infection. In people, roundworm larvae can cause tissue damage, affect the nerves, and lodge in the eye, sometimes causing blindness. Hookworm larvae move below the skin, causing the affected area to become inflamed. Serious damage results if hookworms go deep into tissues, harming the intestines and other organs.



**RINGWORM** Ringworm is a fungus that produces a hairless lesion, scaly and reddened, that appears on the pet's paws, tail, face, and ears. It spreads to humans by direct contact.

**TOXOPLASMOSIS** The parasite *Toxoplasma gondii* causes toxoplasmosis. It is generally transmitted to humans through uncooked meat. However, it can also be passed on through the feces of cats. A cat picks up the infection by ingesting infected small animals or birds in the environment or by eating uncooked meat. The parasite is passed in the cat's feces as millions of microscopic oocysts,

contaminating the litter. This is particularly serious in the case of a pregnant woman who could acquire the infection by tending to the litter box. The human fetus can suffer damage to the nervous system and the eyes.

Prevention of zoonotics is key. It includes the proper supervision of domestic pets, fastidious cleanup of litter and waste, and giving the recommended rabies vaccinations for protection against the threat of this virus. It is also important to thoroughly cook all meats. Flea, tick, and [intestinal parasite preventives](#) are another line of defense. Wearing gloves when working in the garden or with litter boxes, and careful washing of hands is important for adults and children. These simple measures help to safeguard the health of humans who share their lives with household pets.