



Extension FactSheet

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A Guide to Pet Care for the Immunocompromised

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There are many benefits of having a companion animal and these benefits often outweigh the risks of pet ownership. The infections that are shared by people and animals are termed zoonoses. These zoonoses can be serious in immunocompromised people. The risks of contracting an infection can be minimized by following some basic preventative measures. In many of these diseases, the most likely sources of infection are not pets. Therefore, education on disease transmission and prevention are important to minimize the risk of infection from all possible sources.

Who are immunocompromised?

Immunocompromised people are more susceptible to acquiring infectious diseases and include individuals undergoing chemotherapy, such as for breast cancer, organ transplant recipients, and bone marrow recipients. This group also includes the elderly, especially those in nursing homes, hospices, and hospitals; infants; and children under five years of age.

Medical conditions that compromise the immune system include: diabetes; HIV/AIDS; chronic renal failure; asthma; and long term steroid medication usage.

What diseases could I get from my pet?

Type of Pet	Potential Diseases
Cats	Cat Scratch Fever, Toxoplasmosis, Cryptosporidiosis, Salmonellosis, Campylobacteriosis, Giardiasis, Ringworm, Roundworms, Hookworms, Q-Fever
Dogs	Cryptosporidiosis, Salmonellosis, Campylobacteriosis, Giardiasis, Ringworm, Roundworms, Hookworms
Reptiles (snakes, lizards, turtles)	Salmonellosis
Fish	<i>Mycobacterium marinum</i>
Birds	Chlamydiosis, Avian Tuberculosis, Salmonellosis

The chart demonstrates that there are many diseases that can be acquired from household animals. We will discuss some of the more common infections that are encountered.

What diseases pose the greatest risk?

Toxoplasmosis: Household cats are only one of many sources of the protozoan parasite, *Toxoplasma gondii*. Many cases of human central nervous system toxoplasmosis are actually reactivations of previous infections from the ingestion or handling of contaminated meat products, such as pork. Contrary to popular belief, touching or caring for household cats is not the major transmission route. Once an infected cat has shed the *Toxoplasma* oocyst (egg), they are unlikely to shed again. They are most likely to shed infectious oocysts after ingesting infected tissues. Therefore, cats should not be allowed to hunt or eat raw meat. Oocysts need at least 24 hours to become infectious and so daily litter box cleaning should be done, preferably by an immunocompetent person or while wearing gloves. Improper meat preparation, contaminated soil in the environment, and stray cats are the most likely sources of infection. Stray cats have higher rates of infection than household cats. Stray cats can contaminate the environment and gloves should be worn when working outside, such as when gardening, and the handling of stray cats should be avoided. Proper kitchen hygiene will help decrease the risk from meat contamination. Don't reuse any utensils or cutting surfaces that were in contact with the raw meat and don't taste marinades that haven't been fully cooked.

Cat Scratch Disease: This disease is caused by the bacteria, *Bartonella hensalea*, and the disease has been associated with cat contact, especially if one is scratched or bitten, and with exposure to cat fleas. To help prevent infection, the immunocompromised should avoid kittens (they tend to scratch more than adults), avoid contact with stray cats, and use proper flea control. Immediately wash if any scratches or bites occur. Declawing may be an option for those cats that continue to scratch.

Salmonellosis and Campylobacteriosis: Dogs and cats are an infrequent source of infection of the *Salmonella* and *Campylobacter* bacteria. The most common sources for humans are contaminated water; and milk or food contaminated by domestic or farm animals. To prevent dogs and cats from being sources of infection, they should be fed a quality commercial diet and no raw or undercooked meat. They should not be allowed to hunt. The cat litterbox should be cleaned daily, preferably by an immunocompetent person, or if the immunocompromised person must clean it, they should wear gloves and wash immediately afterwards. The litter box should not be kept in kitchens, dining rooms, or anyplace where there is food.

Cryptosporidiosis: This infection is caused by the protozoan parasite, *Cryptosporidium parvum*, and is predominantly acquired from ingestion of fecal-contaminated food and water, such as pools, lakes, rivers, and municipal water supplies. Municipal water supplies have been found to be contaminated up to 90% if untreated and 30% if treated. Therefore, drinking bottled water and taking care to not accidentally ingest water at public pools and other bodies of water may help to greatly decrease the risk of infection. Any pets with diarrhea should be avoided and they should be examined by a veterinarian to determine the cause of the diarrhea.

Giardiasis: Giardiasis is a disease caused by the protozoan parasite, *Giardia lamblia*. Infection usually occurs from the environment, especially water sources. The frequency of transmission of *Giardia* between animals and people is not well established. Human outbreaks usually involve young children with exposure to day-care environments or originate from a water source, such as multiple-use pools.

How can we keep ourselves and our pets healthy?

- Wash hands with soap and water after contact with pets or feces.
- Wash hands well after working in dirt.
- Wear gloves when cleaning up feces.
- Keep pets healthy and have them regularly examined by a veterinarian.
- Don't feed pets undercooked or raw meat or let them get into garbage. Don't allow them to hunt, eat feces, or drink from toilet bowls.
- Keep pets free of fleas and ticks.
- Avoid being bitten or scratched and keep pet nails short.
- Discuss your concerns with your physician and veterinarian.

What pets should be avoided?

- Animals younger than 6 months old are more likely to carry diseases that can make you ill.
- Animals with diarrhea should be checked by a veterinarian for infection with *Cryptosporidium*, *Giardia*, *Salmonella*, *Campylobacter*, and *Toxoplasma*.
- Stray animals and wild birds.
- Exotic pets, such as monkeys.
- Reptiles and amphibians, as they are a major source of salmonellosis.

The benefits of pet ownership outweigh the potential risk of disease in people. For many zoonoses, people are more likely to get the disease from sources other than their pets. The risks can be minimized for all people, including the immunocompromised, by practicing basic preventative measures. Contact your veterinarian and physician for more information.

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