

Protecting Your Whole Family From Zoonotic Diseases

By Andrea Vardaro Tucker, ELS



As the weather warms up, human and furry family members tend to spend more time together enjoying the outdoors. This bonding time comes with increased health risks, but the good news is that a little knowledge, some healthy habits, and regular veterinary visits can help keep your whole family safer.

About Zoonotic Diseases

Zoonotic diseases, or *zoonoses*, are those that humans and animals share. They spread through direct contact, from food or contaminated environments (like sand, soil, or water), or from vectors including ticks, fleas, and mosquitoes. (Vectors in this case are blood-sucking insects or arachnids that can transmit disease-causing organisms such as viruses,

bacteria, or parasites when they feed.) Some zoonoses can cause people, animals, or both to get extremely sick or die.

Despite their exotic name, zoonotic diseases are pretty common. According to the US Centers for Disease Control and Prevention (CDC), “more than 6 out of every 10 known infectious diseases in people can be spread from

animals, and 3 out of every 4 new or emerging infectious diseases in people come from animals.”*

CDC veterinarian Dr. Casey Barton Behravesh, director of the One Health Office and a captain in the US Public Health Service, says, “Unfortunately, pets can sometimes carry germs that can make people sick.” And that goes both ways—some diseases can spread from people to their pets.

At-Risk Populations

Zoonotic diseases can make anyone seriously ill, but these groups are most vulnerable and should take extra precautions:

- Children <5 years old
- Adults >65 years old
- Anyone who is pregnant or considered *immunocompromised*—that is, they have a weakened immune system from cancer treatments or medications; chronic diseases such as diabetes, kidney disease, or AIDS; or any other cause

Healthy older children, teenagers, and adults should still take steps to avoid getting sick.

Zoonoses You Should Know

“There are so many different diseases that can spread between animals and people,” Dr. Barton Behravesh says. Here are several that pet parents should be aware of:

- **Rabies** is a fatal viral disease that attacks the central nervous system and is spread by bites (or in rare cases, scratches) from a rabid animal. In the United States, wild animals are much more likely than pets to have rabies (thanks to so many dogs and cats being vaccinated against this preventable but incurable disease).
- **Roundworms** are common intestinal parasites in pets. Infected pets shed roundworm eggs in their feces, often contaminating sand or soil.
- **Hookworms** are another common parasite that call an animal’s gastrointestinal tract home. Humans typically get infected when walking barefoot, gardening, or playing in sand or dirt and hookworms enter through their skin.
- **Tickborne diseases** spread when ticks carrying diseases (such as Lyme disease) bite you or your pet. Pets don’t give people tickborne illnesses directly, but ticks attach themselves to pets who may bring the ticks into their homes. (See page 11 for tips on protecting your dog or cat from these parasites.)
- **Fleas** transmit germs that cause diseases, called fleaborne illnesses, when they feed on hosts like dogs or cats or if their feces enter an open wound. Examples include cat scratch disease, typhus, and plague. People and pets can also get tapeworms if they accidentally eat a flea infected with tapeworm larvae.
- **Scabies** or **sarcoptic mange** is caused by mites that infest dogs (and rarely cats) who come into direct contact with another infested animal or indirectly encounter the mites in the environment. A pet with this type of mange often has skin that is itchy, balding, bleeding, or oozing, with lesions or crusty patches. People usually have a temporary infestation that results in an itchy red rash.
- **Ringworm** isn’t a worm but rather a contagious fungal infection of the top layer of skin and hair shafts that spreads to people and pets through direct contact or through the environment. In humans, ringworm typically begins as an individual round, red, and mostly flat crusty or scaly lesion that may itch.
- **Toxoplasmosis** is a disease caused by a parasite shed in cat poop that can infect people changing litter or exploring outdoor areas. Immunocompromised people could get a significant infection, and pregnant people

can pass an infection to their unborn children. Wearing gloves, handwashing, and taking other precautions can help prevent infection.

- **Leptospirosis** comes from bacteria in soil and water. Getting this illness directly from pets is less common than acquiring it from water-related activities; however, people should take precautions to avoid coming in contact with an infected pet’s urine. (Leptospirosis can be serious and potentially deadly in dogs. See page 2 to find out how to help keep your pet protected from this illness and other water-related hazards.)
- **GI infections like *Campylobacter* and *Giardia*** are also zoonotic diseases, but unless people are immunocompromised, they’re generally at low risk of contracting these from their pets. Humans usually get a different type of *Giardia* infection that causes diarrhea.

Parasite preventives, vaccines, and other protective measures are essential to help prevent people and pets from sharing diseases.

Hygiene and Safety Tips

“We know animals can spread disease to people or other animals, so it’s always important to practice healthy habits around animals,” Dr. Barton Behravesh says. Try to follow—and teach your kids—these healthy habits:

- **Wash your hands** thoroughly with soap and water before and after walking, playing with, feeding, or handling pets (or other animals) as well as after gardening, playing outside, or touching pet supplies. Model good handwashing hygiene for young kids.
- **Always supervise children.** “Children under 5 should be supervised when handling pets so proper hygiene and care can take place,” says pediatrician and infectious disease specialist Dr. Joseph A. Bocchini Jr, director of children’s services at the Willis-Knighton Health System in Shreveport, Louisiana, and vice chairman of the

*Zoonotic diseases. CDC. Reviewed July 14, 2017. Accessed March 10, 2021. [cdc.gov/onehealth/basics/zoonotic-diseases.html](https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html)

Department of Pediatrics at Tulane University. He sees unsupervised play between young children and pets result in infection from bacteria on children's skin or from pets' mouths. And, Dr. Bocchini says, "the more exotic the animal, the more potential for bites and scratches because their behaviors are not as predictable as [those of] dogs and cats." So also keep hygiene and safety in mind when visiting petting zoos, farms, and pet stores. (For kid-friendly pet safety resources, visit [cdc.gov/healthypets](https://www.cdc.gov/healthypets/).)

- **Clean scratches or bites** right away with soap and water. Puppies and kittens especially have sharp claws and baby teeth, and even older pets might accidentally scratch or break the skin during play. Call a healthcare provider if you think a scratch or bite is infected or if the person bitten or scratched is immunocompromised or a child.
- **Pick up waste.** Promptly remove poop from your yard and during walks using a poop bag, glove, or scooping device, and throw out the feces in the trash. Change your cat's litter daily, ideally wearing gloves. (If you're expecting a baby, have another member

of the household change litter if possible; if not, changing it frequently, using gloves, and washing your hands will help keep you safe.) Thoroughly wash your hands with soap and water after cleaning up pets' waste.

- **Keep pets indoors and safe outdoors.** Always leash dogs or keep them in a fenced yard. At dog parks, don't let them play with or chew on communal toys or drink from shared water bowls. Unless leashed, cats should ideally stay inside to limit their exposure to potentially contaminated areas and to discourage hunting.
- **Stay safe from sand and dirt.** Cover sandboxes when not in use, and remind your children not to put sand or dirt in their mouths, always supervising little ones. When gardening, wear shoes and gloves. And after any outdoor activity, wash those hands!
- **Clean your home.** Vacuum carpets and furniture often, and wash pet bedding regularly. Also, keep pets off countertops and tables where you prepare or eat food.
- **Consider kissing kisses goodbye.** Try not to let pets lick your face or mouth, and teach your children not

to kiss pets on or near the mouth. "Mouths of pets contain a number of organisms that can potentially cause infection," Dr. Bocchini says. Kissing pets can also scare them, resulting in a bite. See the sidebar below for some alternative signs of affection.

- **Seek regular veterinary care.** Follow your vet's recommendations for parasite preventives, vaccinations, and deworming puppies and kittens as well as adult pets. At least once a year or as recommended by your vet, get your pet's fecal sample checked for parasites.

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When pets are healthy, they pose little health risk to us. Take your pet for regular wellness exams, keep her up-to-date on parasite prevention and vaccines, and practice good hygiene. Ask your veterinarian and family physician for additional advice.

HealthyPet copy editor and board-certified editor in the life sciences *Andrea Vardaro Tucker* and family spend much of their days dodging mouth kisses from their 12-year-old Westie, Cole—while spoiling her in plenty of other ways.

How to Show Pets Affection Without Kissing Them

"You don't need to kiss [pets]," Dr. Barton Behravesh says. "There are other ways to show your love." Here are some suggested alternatives:

- Offer lots of cuddles, pets, and scratches for dogs—and cats who are into physical affection.
- Teach your pet tricks.
- Take your pet on a leashed walk or hike.
- Present a food puzzle.
- Set up a pet-safe obstacle course indoors or in a fenced yard.
- Include children in any or all of these activities if appropriate to their age, always supervising.

We know our pets are irresistible and it's especially hard to keep kids from letting pets lick their faces, so no judgment! But that's why proper veterinary care and preventives are so important.

