

Zoonotic Diseases

Fast Facts: 61% of all human pathogens are zoonotic (passed from animals to humans), and many are transmitted through inhaling dust particles or contact with animal wastes. **Some of the diseases we can get from our pets may be fatal** if they go undetected or undiagnosed. All are serious threats to human health, but **can usually be avoided** by observing a few precautions, the most effective of which is **washing your hands** after touching animals or their wastes. Regular visits to the veterinarian for prevention, diagnosis, and treatment of zoonotic diseases will help limit disease in your pet.

Source: <http://www.cdc.gov/healthypets/>

Some common zoonotic diseases humans can get through their pets:

Zoonotic Disease & its Effect on Humans	How Contact is Made
Bartonellosis (cat scratch disease) – an infection from the bacteria <i>Bartonella henselae</i> that causes fever and swollen lymph nodes.	<i>Bartonella</i> bacteria are transferred to humans through a bite or scratch. Do not play with stray cats, and keep your cat free of fleas. Always wash hands after handling your cat.
<i>Capnocytophaga</i> infection – an infection caused by bacteria that can develop into septicemia, meningitis, and endocarditis.	<i>Capnocytophaga canimorsus</i> is the main human pathogen associated with being licked or bitten by an infected dog and may present a problem for those who are immunosuppressed.
Cellulitis – a disease occurring when bacteria such as <i>Pasteurella multocida</i> cause a potentially serious infection of the skin.	Bacterial organisms from the <i>Pasteurella</i> species live in the mouths of most cats, as well as a significant number of dogs and other animals. These bacteria can enter the body if your dog or cat bites you or licks a break in your skin.
Cryptosporidiosis – a disease caused by a microscopic parasite that causes diarrhea. It is one of the most frequent	Many forms of <i>Cryptosporidium</i> may be found in soil, food, water or on surfaces that have been contaminated with feces from infected humans or animals. Swallowing infected water during

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causes of waterborne diseases in the United States.	recreation is the main cause of illness, but not all forms can infect humans.
Cutaneous larva migrans (hookworm infection) – parasitic hookworms are responsible for a painful and itchy dermatitis where a hookworm larva moves through human skin.	Hookworm larvae burrow directly into skin where contact is made (for example, through walking around barefooted or working in soil without gloves).
Dipylidiasis (tapeworm infection) – parasitic tapeworms may cause abdominal discomfort, appetite disturbances, and insomnia, but may present no symptoms at all and go undetected for years.	Young children are often in close contact with pets and may accidentally ingest fleas containing tapeworm eggs. Pets should be dewormed regularly and kept free of fleas.
Giardiasis – a disease caused by a waterborne parasite called <i>Giardia</i> that causes diarrhea in humans.	Humans get this primarily from drinking water from sources that have been contaminated by infected animals, but not all forms of <i>Giardia</i> can affect humans. Never drink water from an untreated source.
Leptospirosis – a disease caused by the bacteria <i>Leptospira</i> resulting in flu-like symptoms with vomiting and diarrhea. Organ failure can result if it goes untreated.	The primary source is from bacteria in urine from wildlife which enters humans through a break in the skin such as a cut or rash, or contact with mucous membranes while eating or drinking. Wash all fruits and vegetables. Drink water only from a tested, safe source.
Rabies – a virus which causes fatal human encephalitis. Contact your physician if bitten or scratched by an animal, or if you have had any contact with a bat.	Almost all mammals can get and spread rabies, including your unvaccinated pet. Common rabies carriers in the U.S. are bats, skunks, raccoons, and foxes. When these animals are infected, they may infect humans directly or they may infect other animals such as livestock or pets, which may then infect humans. Vaccinating pets on a schedule

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	prescribed by your veterinarian is the best prevention against rabies.
Ringworm – a skin and scalp disease caused by several different kinds of fungi. It is usually seen as a red, dry and scaly, or wet and crusty patch on the skin.	Fungus that can be transmitted from pets to humans and vice versa. Humans can also be infected with ringworm from handling contaminated soil.
Salmonellosis - an infection with bacteria called <i>Salmonella</i> that causes diarrhea, fever, and abdominal cramps.	A bacterial disease transmitted through wastes of animals, especially chickens, amphibians, reptiles and fish.
Toxocariasis (roundworm infection) - most humans will not have any symptoms of this parasite, but severe cases may result in organ damage or eye disease.	Microscopic roundworm eggs may accidentally be ingested when touching dirt previously contaminated by feces. The eggs can be ingested if hands are not washed properly. These eggs are invisible to the naked eye, so washing produce is important also.
Toxoplasmosis - common zoonotic infection in nearly all mammals and some birds. It can cause severe and fatal disease in fetuses and in those who are immunocompromised.	The parasite <i>Toxoplasma gondii</i> may be accidentally ingested by humans. It may come from cat feces, or from eating raw or undercooked meat that is contaminated with cysts. It is important to resist feeding your pet raw meat, and to wash hands after handling pet wastes.

Some Zoonotic diseases you can get from birds, fish, reptiles, and pocket pets:

61% of all human pathogens are zoonotic (passed from animals to humans), and many are transmitted either through inhaling dust particles, or contact via animal wastes. **Some diseases**

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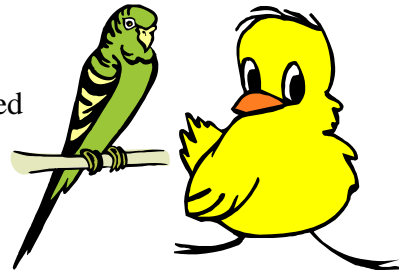
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are fatal if they go undetected or undiagnosed. All are serious threats to human health, but **can usually be avoided** by observing a few precautions, the most effective of which is **washing your hands** after touching animals or their wastes. Regular visits to the veterinarian for prevention, diagnosis, and treatment of zoonotic diseases will help limit threats to your pet.

Source: <http://www.cdc.gov/healthypets/>

Diseases humans can get from birds

Psittacosis (*Chlamydia psittaci* infection, or parrot fever): A bacterial disease associated with pet birds, including parrots and parakeets. Psittacosis is usually spread by inhaling dust from dried droppings from birdcages, causing flu-like symptoms and pneumonia in severe cases.



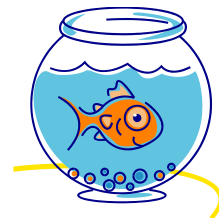
Histoplasmosis: A disease caused by the fungus *Histoplasma capsulatum*. The fungus lives in bird or bat droppings. Lung infection can occur after a person inhales airborne, microscopic fungal spores from the environment; however, many people who inhale the spores do not get sick. The symptoms of histoplasmosis in humans are similar to pneumonia, and the infection can sometimes become serious if it is not treated. Wear a mask when cleaning your bird's cage.

Cryptococcosis (*Cryptococcus* infection): A fungal disease associated with wild bird droppings, including those from pigeons. It may cause pneumonia and meningitis (inflammation of the brain and spinal cord membranes).

Salmonellosis (*Salmonella* infection): A bacterial disease associated with many birds, especially chickens, baby chicks, and ducklings. Human symptoms may include diarrhea, fever and headache.

Diseases humans can get from fish

Salmonellosis (*Salmonella* infection): *Salmonella* bacteria are excreted by an infected fish into the water. In humans it may cause diarrhea, fever and headache. Always wash your hands after handling animals or cleaning their tanks.



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Mycobacteriosis (*Mycobacterium marinum* infection): This bacterium is sometimes found in contaminated aquarium water. People with weak immune systems (such as people with HIV/AIDS) should avoid cleaning fish tanks or use protective gloves when doing so. Symptoms of mycobacteriosis include skin lesions, joint pain, and arthritis.

Source: http://www.cfsph.iastate.edu/Factsheets/pdfs/mycobacterium_marinum.pdf

Diseases humans can get from reptiles (turtles, snakes, lizards, tortoises)



Salmonellosis (*Salmonella* infection): *Salmonella* bacteria are excreted by an infected animal onto the cage bedding. This disease is associated with reptiles, including lizards, snakes, turtles, and tortoises. It may cause diarrhea, fever, and headache and can usually be prevented by washing your hands after handling your pet or cleaning their cage.

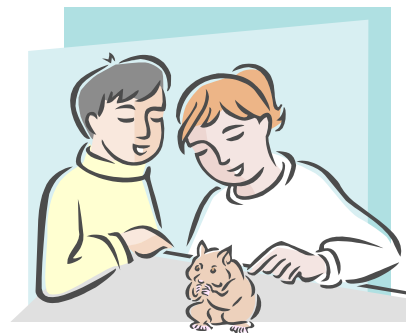
Diseases humans can get from pocket pets (gerbils, rats, mice, rabbits, hamsters, guinea pigs, and ferrets, as well as rodents bought to feed other animals such as snakes.)



Salmonellosis (*Salmonella* Infection): See Reptiles, above.

Lymphocytic Choriomeningitis (LCM): LCM is carried by rodents and can be passed to humans. Not all people who are exposed to the virus become ill. Although human infections from pet rodents are rare, symptoms may include fever, stiff neck, fatigue, loss of appetite, muscle aches, headache, nausea, and vomiting. The best line of defense is to wash your hands after handling a pet, and cleaning its cage.

Source: <http://www.cdc.gov/healthypets/>



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Some Zoonotic diseases you can get from your cat or dog:

61% of all human pathogens are zoonotic (passed from animals to humans), and many are transmitted either through inhaling dust particles, or contact via animal wastes. **Some diseases are fatal** if they go undetected or undiagnosed. All are serious threats to human health, but **can usually be avoided** by observing a few precautions, the most effective of which is **washing your hands** after touching animals or their wastes. Regular visits to the veterinarian for prevention, diagnosis, and treatment of zoonotic diseases will help limit disease in your pet.

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Diseases humans can get from cats

Bacteria:

Campylobacteriosis: A bacterial disease associated with cats, dogs, and farm animals. Human symptoms may include watery or bloody diarrhea, fever, abdominal cramps, nausea, and vomiting.

Bartonellosis (cat scratch disease): A bacterial disease caused by *Bartonella henselae* associated with cat scratches and bites. Human symptoms may include swollen lymph nodes, fever, headache, and fatigue.

Leptospirosis: A bacterial disease associated with wild and domestic animals including cats, which, in humans causes flu-like symptoms followed by jaundice, and kidney or liver failure.



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Yersiniosis (Plague): A rare disease associated with rodents, cats and fleas caused by the bacteria *Yersinia pestis*. Fleas are the vectors of this disease, so keeping your cat free of fleas is essential. Human symptoms, depending on manifestation, may include fever, chills, cough, pneumonia, swollen lymph nodes, or blackening of skin.

Salmonellosis: A bacterial disease associated with various animals, including cats. Human symptoms may include diarrhea, fever, & abdominal cramps.

Fungus:

Ringworm: A fungal disease associated with various animals, including cats (and they may not look like they have it, but can spread it to you). In humans, symptoms may include red, itchy patches on the skin.

Parasite:

Cutaneous larva migrans (hookworm infection): Hookworm larvae burrow directly into skin where contact is made and cause dermatitis (itchy red skin). Walking around barefooted where your pet has been passing wastes is not a good idea.

Dipylidiasis or **Echinococcosis** (tapeworm infection): Humans get *Dipylidium* tapeworms by accidentally ingesting infected fleas. Symptoms may include abdominal pain, loss of appetite, weight loss, and upset stomach. Humans may accidentally ingest *Echinococcus* tapeworm eggs by not washing their hands after handling feces from an infected animal or contaminated soil. *Echinococcus* tapeworms cause slowly enlarging cysts or tumors in the liver, lungs, and other organs of humans that often grow unnoticed and neglected for years until they become problematic.

Toxocariasis (roundworm infection): Roundworms are transmitted through eggs in the feces of an infected animal. In humans, symptoms may include fever, coughing, enlarged liver or pneumonia. This form of toxocariasis is called visceral larval migrans. The larvae can also travel to the eye and cause ocular larva migrans.

Toxoplasmosis (*Toxoplasma* infection): Humans are more likely to get this parasite through gardening or eating undercooked meat, but cleaning the litter box daily and washing hands afterwards will prevent this cat source. Human symptoms include flu-like

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symptoms lasting a month or more. Toxoplasmosis poses a serious threat for pregnant women and their unborn babies.

Virus:

Rabies: A viral disease that infects the central nervous system, causing disease in the brain, and ultimately, death. Immunize your pet on a schedule prescribed by your veterinarian. Do not attempt to pick up any stray animal, and if you are bitten, immediately seek medical attention.

Source: <http://www.cdc.gov/healthypets/>

Diseases humans can get from dogs



Bacteria:

Campylobacteriosis (*Campylobacter* infection): See Cat information.

Leptospirosis (*Leptospira* infection): See Cat information.

Tick-borne diseases (includes ehrlichiosis, Lyme disease, Rocky Mountain spotted fever and others): These are bacterial diseases that are transmitted by infected ticks to dogs and humans. Symptoms vary depending on the disease but may include a rash, fatigue, chills, fever, headache, muscle and joint aches, and swollen lymph nodes. Can be treated with antibiotics, but with flu-like symptoms, it is often misdiagnosed.

Salmonellosis (*Salmonella* infection): A bacterial disease associated with various animals including dogs. See Cat information.

Fungus:

Ringworm: Ringworm is a skin and scalp disease caused by several different kinds of fungi that may be transmitted by your dog or picked up from working with contaminated soil. Ringworm on the scalp usually makes a bald patch of scaly skin. People with ringworm on other parts of their skin can have a ring-shaped rash that is reddish and may

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be itchy. Washing your hands thoroughly after touching your pet is always a good idea, but any pet that has a bald spot should be taken to your vet.

Source: <http://www.cdc.gov/healthypets/>

Parasites:

Cutaneous larva migrans (hookworm infection): See Cat information.

Dipylidiasis or **Echinococcus** (tapeworm infection): See Cat information.

Giardiasis: A parasitic disease associated with various animals, including dogs and their environment, especially water.

Toxocariasis (roundworm infection): A parasitic disease associated with dogs and cats and their environment. Wash your hands after handling pets or pet wastes (See toxocariasis in Cat information).

Virus:

Rabies: See Cat information.

Some Zoonotic diseases you can get from your horse:

61% of all human pathogens are zoonotic (passed from animals to humans), and many are transmitted either through inhaling dust particles, or contact via animal wastes. **Some diseases are fatal** if they go undetected or undiagnosed. All are serious threats to human health, but **can usually be avoided** by observing a few precautions, the most effective of which is **washing your hands** after touching animals or their wastes. Regular visits to the veterinarian for prevention, diagnosis, and treatment of zoonotic diseases will help limit disease in your horse.



Bacteria:

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Campylobacteriosis (*Campylobacter* infection): A bacterial disease associated with various animals, including horses. Diarrhea lasts from 5-10 days. Rarely, *Campylobacter* infection results in long-term consequences, such as arthritis or paralysis.

Leptospirosis (*Leptospira* infection): A bacterial disease associated with wild and domestic animals which, in humans causes flu-like symptoms followed by jaundice, and kidney or liver failure.

Salmonellosis (*Salmonella* infection): A bacterial disease associated with various animals, including horses. Human symptoms may include diarrhea, fever, & abdominal cramps.

Fungus:

Ringworm: A fungal disease associated with various animals, including with horses. Wash your hands and bathe thoroughly after working around a horse. Human symptoms include redness, itching, scaling and cracking of the skin.

Virus:

Rabies: A viral disease that infects the central nervous system, ultimately causing disease in the brain, and death. Immunize your horse on a schedule prescribed by your veterinarian.

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