

# The Great Outdoors is No Place for Cats

## CATS INDOORS

Outdoor cats, even if otherwise well-cared-for, face an extraordinary array of dangers. According to The Humane Society of the United States, roaming cats typically live less than five years, whereas cats kept exclusively indoors often live to 17 or more years of age.

### General Hazards To Free-roaming Cats

**Cars:** Millions of cats are killed by cars each year in the U. S. and countless others maimed, either from being hit or from crawling inside the hood of a car or in the tire well to sleep or get warm in the winter.

**Animal Attacks:** Outdoor cats can be injured or killed by free-roaming dogs, wildlife, and other cats. Cats can suffer torn ears, scratched eyes, abscesses and other injuries requiring expensive veterinary treatment. Fatal diseases such as FIV can be transmitted by bites and scratches from infected animals.

**Exposure:** Outdoor cats must withstand storms and extreme temperatures in summer and winter. Feral cat populations in northern climates drop as large numbers freeze to death each year.



Mike Parr, ABC

**Poisoning:** Cats can find chemicals that are poisonous to them on treated lawns, in rat or mice bait, and on driveways and roads from antifreeze leaked or drained from cars. Antifreeze tastes sweet to a cat, but as little as one teaspoon can be fatal.

**Human Abuse:** Animal care and control agencies often learn of situations in which cats have been burned, stabbed, poisoned, or hurt by other means.

**Traps:** Cats can get caught in traps set for other animals and may become injured or suffer before being released.

**Predation:** Coyotes regularly feed on outdoor cats, according to a scientific study, *Observations of Coyote-Cat Interactions* by Shannon Grubbs of the University of Arizona and Paul Krausman of the University of Montana published in the *Journal of Wildlife Management*. The researchers tracked coyotes in Tucson, Arizona and observed 36 coyote-cat interactions, of which 19 resulted in coyotes killing cats.



Arizona Fish and Game Department



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Other studies have found that approximately 13% of a coyote's diet consists of cats. However, during this study, in the 45 instances when coyotes were observed feeding, 42% of the meals were cats. The researchers concluded that any cat outside in that area is vulnerable to coy-

ote attack, and recommended that cat owners keep their cats indoors (Grubbs and Krausman 2008).

## Feline Diseases

Roaming cats are at risk from many diseases, some of which are acquired from prey animals. Some diseases affecting cats can be transmitted to humans.

**Feline Leukemia Virus (FeLV)** compromises a cat's immune system and is the leading cause of death due to infectious disease in cats. There is no cure. The virus is shed in feces, milk, and tears, but is spread between cats primarily via grooming, licking, biting, and shared food dishes and litter pans. Kittens can be infected by their mother before birth or during nursing after birth. Clinical signs range from chronic diseases to cancer. Once infected with FeLV, a cat may develop immunity and become resistant to future infections, become a "latent carrier" of the disease, or become persistently infected and die within three years. Death can be sudden or lingering and painful. A vaccine exists and must be given annually, but is not 100% effective.



Greg Homel, Natural Elements Productions

**Feline Panleukopenia Virus (FPV)**, also known as feline distemper, is extremely contagious, either by direct cat to cat contact, or indirect transmission from clothing, by people, or inanimate objects. Fleas can also spread the virus.

FPV attacks and destroys white blood cells in cats, effectively disarming the cat's immune system, making it vulnerable to other diseases. Without intensive medical treatment, death will result. A vaccine is available, but must be given annually.

**Feline Infectious Peritonitis (FIP)** is a progressive, debilitating, difficult to diagnose, and fatal viral disease. FIP is transmitted via feces, urine, or nasal/oral secretions through direct contact with infected cats, as well as use of common food bowls, water dishes, and litter pans. FIP causes a cat's immune system to attack its own cells, damaging blood vessels throughout the body. There is no cure or completely effective vaccine.

**Feline Immunodeficiency Virus (FIV)** destroys a cat's immune system, and is always fatal, though cats can live for some years with the disease. It is most commonly transmitted by cat-to-cat bite wounds and found most often in unneutered roaming males. FIV leads to chronic infections of the mouth, upper respiratory tract, intestinal tract, eyes, and skin. A vaccine is now available, but is not 100% effective.

**Upper Respiratory Infections (URI)** are highly contagious and common in felines, especially young kittens. Symptoms include sneezing, nasal discharge, and lack of appetite. Medications will alleviate some of the symptoms but do not eliminate the virus. About 80% of cats that recover from these viruses remain carriers of the disease for months to years afterwards. Vaccines are available, but must be given annually.

## Diseases and Parasites Transmissible From Cats To People

**Toxoplasmosis** is caused by a tiny protozoan parasite, *Toxoplasma gondii*, which resides in the intestinal tract of cats and in the tissues of many animals and rodents. If contracted by a pregnant woman in her first trimester, it can cause miscarriage

of the fetus or blindness, retardation, or seizures in the newborn. It has also been linked to behavioral changes, and the parasite is being investigated for a possible link to Alzheimer's disease.

It is estimated that 30% of cats and up to 50% of humans have been exposed to *T. gondii*. Cats and people can acquire *T. gondii* from undercooked meat, unpasteurized milk, contaminated water sources, soil or sandboxes contaminated with cat feces, flies, rodents, earthworms, and the litter boxes of infected cats.

Toxoplasmosis can cause serious illness in children, and even death in individuals with compromised immune systems. A suspected outbreak of toxoplasmosis occurred in British Columbia in 1995. One hundred and ten people were believed to have acquired acute infections from the feces of infected domestic feral cats that entered the drinking water supply. Cats are the only animals in which the organism can complete its complex life cycle. Signs of infection in cats vary from being unapparent to weight loss, fever, diarrhea, pneumonia, encephalitis, and eye disease.

**Rabies** is caused by a virus which can infect warm-blooded mammals, including cats, people, wildlife, and farm animals. Outdoor cats are at risk of contact with rabid wild animals such as raccoons, skunks, foxes, and bats. According to the U.S. Centers for Disease Control and Prevention, cats are the domestic animal most commonly found to be rabid. Cats are closely associated with people, and rabid cats often become aggressive. These two factors increase the risk of human exposure. Bites are the



Marjorie Gibson

most common means of transmission. A three-year rabies vaccine is available for cats. However, the cat must get a booster the following year for the vaccine to be protective for three years.

Rabies is lethal if not detected and treated immediately. Rabies attacks the central nervous system, resulting in paralysis and death. Flu-like symptoms progress to hyperactivity, disorientation, hallucinations, and convulsions. In the last stages of the disease, the victim lapses into a coma and dies of respiratory arrest. Since 1960, there have been only two documented human deaths in the U.S. from rabies contracted from cats. However, the post-exposure treatment of people bitten or scratched by cats infected or suspected to be infected is enormously costly, inconvenient, and can be painful. In 2009, over 300 people in the U.S. had to be treated for rabies as a result of cat bites or scratches.

**Plague** is caused by the bacteria *Yersinia pestis*, and is transmitted primarily by wild rodent fleas, mainly in the states of New Mexico, Arizona, Colorado, and California. Cats can become infected from flea bites or from eating infected small mammals. The most frequent route of transmission to humans is via the bite of an infected flea. Alternatively, people can contract the illness by direct contact with



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the secretions of an infected animal or person, such as scratches, bites, or from inhalation of infective droplets released by coughing or sneezing. In recent years, almost all human cases of the most lethal form of the disease, pneumonic plague, have been linked to domestic cats. Plague causes fever, diarrhea, nausea, slurred speech, mental confusion, staggering gait, coughing, enlarged lymph nodes, coma, and death if not treated immediately.

**Cat-Scratch Disease (CSD)** is caused by the bacterium *Bartonella*, and is transmitted from cat to cat by fleas. Over 90 percent of human cases are associated with either a scratch or a bite received from a cat. CSD occurs in people of all ages, but most frequently affects children under the age of ten. People who contract this disease sometimes require treatment including antibiotics. This disease can cause encephalitis in young children, and people with compromised immune systems can become seriously ill and may require prolonged treatment. Up to 80 percent of the cats in some studies were infected with this disease. Cats typically show no symptoms of the disease, and kittens are more commonly infected than adults.

**Roundworms** are nematode worms that can reside in the intestinal tract of cats, other domestic animals, and wildlife. Cats can contract this parasite from eating infected wildlife, and mother cats can pass the larvae to their kittens before birth or through milk. Signs of infection in pets include vomiting, loss of appetite, or severe weight loss. Cats infected with these worms contaminate their surroundings by passing eggs or larvae in their feces. People get roundworms through direct contact with infected feces, by chance ingestion of contaminated soil, sand, or plant life. Children are more vulnerable than adults. Roundworms enter the body when ingested as eggs that soon hatch into larvae. The larvae migrate through the liver, lungs, and other organs and tissues where they can cause damage and induce allergic responses. Infection may leave children with permanent visual or neurological damage. Roundworms can remain infective in the soil for a prolonged period.



A.D. Barnes

**Hookworms** are a type of roundworm that live in a cat's digestive tract and can infect human skin, causing lesions. People acquire hookworm larvae through contact with wet sand or soil. For example, sunbathers and children, and electricians, plumbers, and other workers who crawl beneath raised buildings are particularly susceptible. The larvae can remain alive and travel in the skin for several months. One type of hookworm can penetrate into deeper tissues and cause more serious damage to the intestines and other organs.

For more information, go to Centers for Disease Control and Prevention web site at: [www.cdc.gov/healthypets/](http://www.cdc.gov/healthypets/).

## Conclusion:

While letting cats outdoors may seem the natural thing to do, the hazards that cats face when they leave home are numerous. The best way to keep cats healthy, and protect wildlife and human health, is to keep cats indoors.