

Feline Upper Respiratory Infection

What causes a feline upper respiratory infection?

Feline upper respiratory infection (URI) is one term for a respiratory infection caused by one or more viral or bacterial agents. Synonyms for this condition include feline infectious respiratory disease and feline upper respiratory disease complex (URD). The infection may be caused by one or more viral and bacterial agents that are capable of causing disease in cats. The most common viruses that cause upper respiratory infections in cats are Feline Herpesvirus Type-1 (also known as feline viral rhinotracheitis (FVR) and Feline Calicivirus (FCV).

The typical upper respiratory infection involves the nose and throat, causing symptoms such as sneezing, nasal congestion, conjunctivitis (inflammation of the membranes lining the eyelids), and discharges from the nose or eyes. The discharges may be clear or may become purulent (containing pus). With FVR and FCV, the cat may develop ulcers in the mouth. Other, less specific symptoms of an upper respiratory infection include anorexia, lethargy, fever, enlarged lymph nodes and blepharospasm (squinting). In severe cases, the cat may have difficulty breathing.

How does a cat get an upper respiratory infection?

The main viruses that cause URI in cats are highly contagious. An infected cat will shed contagious particles in saliva or secretions from the nose or eyes. Susceptible cats can get an infection by direct contact with another infected cat or by environmental exposure to objects that have been contaminated with infectious secretions. In the majority of cases, the cat gets an infection by direct contact since the viruses can only survive for a short period of time in the environment, and they are readily destroyed by proper disinfection procedures. Several of these diseases can cause a carrier state in cats that have apparently recovered from an infection and female cats that are carriers can pass the infection on to their newborn kittens.

How long does a typical upper respiratory infection last?

Once a cat is exposed to an infectious agent, it will go through an incubation period of 2-10 days before developing symptoms. If the infection is uncomplicated, it will typically last for 7-21 days, depending on the particular disease agent. During this entire time, the cat will potentially be infectious to other cats.

With FVR, all cats that have been infected will become carriers of this virus; most carriers will be latent, meaning that the virus will survive in an inactive form within the cat's body. Stress will cause the virus to become reactivated, and if the virus becomes reactivated, the cat will again be infectious. In the majority of cases, the cat will show symptoms of a respiratory infection when the virus is reactivated. However, not all cats with a reactivated feline viral rhinotracheitis infection will show symptoms of disease. With calicivirus, about half of the cats that are infected will become carriers of disease. In some of these cats the carrier state may only last for a few months, but in a small percentage of cats the carrier state may persist for life. These persistent carriers are usually free of symptoms but serve as a constant source of virus to susceptible cats.

How long can the viruses live in the environment?

When saliva or other discharges from an infected cat contaminate the environment, the viruses can survive in the material as long as it stays moist. Fortunately the secretions usually dry up in a fairly short period of time, and once the secretions dry up the viruses will die. Viral particles that get onto hands

or other skin surfaces usually remain infective for about half an hour, while contaminated 'fomites' such as food or water bowls, kitty litter boxes, blankets, cleaning cloths, and cat toys will be infective as long as the secretions on them remain moist - under normal conditions, the secretions will dry up in a few hours.

How can the viruses be killed?

The viruses are readily killed in the environment by disinfectants, as long as the disinfectant contacts all contaminated surfaces. A bleach solution (1 part regular bleach to 32 parts water) is an effective disinfectant for surface disinfection or for use on objects that can be bleached. Contaminated objects should be soaked in bleach solution for a minimum of 5 minutes. Blankets or toys can also be disinfected by regular machine washing using hot water and detergent. Objects that cannot be bleached may be decontaminated by thorough washing with plenty of soap and water. Upholstered furniture may be decontaminated with upholstery shampoo, although in most cases furniture only serves as a source of virus for a short period of time after being contaminated by an infected cat.

After touching an infected cat, hands can be sanitized by washing with soap and water (making sure to clean under the fingernails with a nail brush), followed by application of an alcohol-based hand sanitizer.

Which cats are most at risk?

All cats can become infected, but infection tends to be more severe in young animals or animals that have another chronic disease. Kittens born to a cat that is carrying a latent FVR infection may become infected after birth. In these kittens, symptoms usually develop several weeks after birth, and the infection can be very serious.

How is an upper respiratory infection diagnosed?

In most cases, diagnosis of an upper respiratory infection is based on the characteristic clinical signs. Specific identification of the causative agent is not always necessary, but will be recommended for breeding animals or if an individual cat has an infection that is poorly responsive to treatment.

What is the treatment?

Most cats with an uncomplicated upper respiratory infection can be treated symptomatically at home. Your veterinarian may prescribe an eye medication to be applied topically if your cat has yellow or green eye discharge. It is extremely important to treat corneal ulcers aggressively in order to prevent permanent damage to the eyes.

Although viral infections do not respond to antibacterial drugs, broad spectrum antibacterial drugs may be prescribed in an effort to prevent secondary bacterial infections from complicating the disease, particularly in kittens.

Cats with nasal or airway congestion may benefit from increased environmental humidification such as being taken into a steamy bathroom for 10-15 minutes several times per day. To minimize irritation from discharges, it is often helpful to wipe them away from the cat's face or eyes with a moist tissue. Since cats with a respiratory infection will have a decreased sense of smell, they often have a decreased appetite - feeding a highly palatable canned food may help improve their appetite. In some cases, an appetite stimulant may be prescribed.

If a cat is dehydrated, depressed or has a severe case of illness, your veterinarian may recommend hospitalization for more intensive treatment including intravenous fluids and other supportive treatments.

Are other cats in the household at risk of infection?

A cat that has an infection will be infective to other cats during the incubation period and for up to 3 weeks after developing symptoms. A cat that is a carrier may always be infective to other cats. The risk of infection increases in cats that are unvaccinated, are young, or have chronic underlying problems. Adult cats that have been adequately vaccinated will likely only develop a mild case of illness, which may resolve without treatment.

Affected cats must be isolated from other cats to avoid further spread of disease. It is always prudent to isolate any new cat from the other cats in your household for at least 1-2 weeks to minimize transmission of any infectious diseases.

Is my family at risk?

The upper respiratory infection that is caused by feline viral rhinotracheitis is species specific, and is only infectious to other cats. However, upper respiratory infections in cats can be caused by or complicated by bacterial infections, some of which might be zoonotic, or contagious to humans. If you follow good hygiene practices including proper hand washing after handling any cat, you will minimize the chance that you can get an illness from this or any other infectious disease. It would be prudent to consult your family physician if anyone in your family develops signs of a respiratory infection if your cat is ill.

How can this disease be prevented?

Since upper respiratory infections can be caused by a variety of different disease agents, it is not always possible to prevent upper respiratory disease in cats. However, the standard 'core' vaccines that are given to cats provide protection against feline viral rhinotracheitis and feline calicivirus. There is also a vaccine that protects against feline chlamydiosis; this vaccine is considered to be 'non-core' and its use is recommended if your cat has a reasonable risk of exposure to this disease. None of these vaccines will completely prevent an infection from occurring if your cat is exposed to the disease, but they will significantly reduce the severity of the infection and shorten the length of the illness. All of these vaccines need to be boosted on a regular basis - your veterinarian will advise you on the recommended booster schedule for your individual cat.

Susceptible cats can get an infection by direct contact with another infected cat or by environmental exposure to objects such as brushes, food bowls, litter boxes, cat toys, or blankets that have been contaminated with infectious secretions. Boarding facilities, humane societies, animal shelters and cat shows are all places where susceptible cats can be readily exposed to these infectious diseases. Preventing direct contact between your cat and other cats will greatly minimize the chance that your cat will pick up an infection, while following good sanitation and hygiene practices, such as washing your hands thoroughly before and after petting another cat will further reduce the likelihood of disease spread between cats. If your cat has had an infection, you should keep the cat indoors to prevent spread of this infection to other cats in your neighborhood.

What is the prognosis for a cat with feline upper respiratory infection?

There is no cure for these infections. The therapeutic goal is to reduce the frequency and severity of recurrences. Most cats respond well to medical management of the condition and lead normal lives. Minimizing the chance of infection, feeding a premium diet, supplementing the diet with l-lysine daily, reducing stressful situations and following an appropriate vaccination schedule are your cat's best defense against this disease.