

Upper Respiratory Infection in Cats

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[See article summary below.](#)

Symptoms

- Sneezing
- Nasal discharge
- Runny eyes
- Cough
- Oral or nasal ulcers
- Sniffles
- Fever
- Hoarse voice
- Or any combination thereof

What Cats are at Risk?

The agents of feline upper respiratory infection are highly contagious and present where ever cats live in groups. Getting infected is easy; a cat simply must socialize with an infected cat or share the same human caretaker, toys or food bowls. It would seem that the average house cat would be at low risk for infection; however, it is important to realize how common upper respiratory infection is. In some areas, the infection rate is felt to be 60% or more. This means that there is an excellent chance that any cat or kitten is already infected at the time of adoption regardless of whether the cat is showing any symptoms. *Kittens are predisposed* due to their immature immune systems, and are usually hit the hardest. When these kittens grow up, they are still infected and symptoms may come out whenever stress suppresses their immune system.

Typically, infected cats come from the *shelter*, are *outdoor cats*, or are housed in close contact with lots of other cats (*experiencing crowding stress*). *Persian cats* are predisposed to upper respiratory infection due to their inherent facial flattening. The average house cat



Severe nasal discharge can occur with upper respiratory infections in cats.

who is not exposed to any rescued kittens, lives with only one or two other cats at most, never goes outside, and leads a non-stressed life is unlikely to break with symptoms but may very well be asymptotically infected.

The chief infectious agents that cause feline upper respiratory infections are *herpesvirus* and *calicivirus*, together accounting for about 90 percent of infections. Other agents include: *Chlamydomphila*, *Mycoplasma*, *Bordetella*, and others. Of course, a cat or kitten may be infected with more than one agent.

Viruses are spread by the wet sneezes of infected or carrier individuals. The herpesvirus is fragile, surviving only 18 hours outside its host; calicivirus is tougher, lasting up to 30 days. Bleach will readily inactivate either virus but calicivirus is able to withstand unbleached laundry detergents.

A cat with herpes is contagious to other cats for a couple of weeks after a stressful event. Cats infected with calici are contagious for several months after infection but do not appear to have recurrences the same way cats with herpes do.

Course of Infection

To some extent, the combinations of symptoms and course of infection is determined by which of numerous infectious agents is responsible. Ninety percent of feline upper respiratory infections are caused by either feline herpes (also called the rhinotracheitis virus) or feline calicivirus. Neither of these infections is transmissible to humans or to other animals.

Most feline colds run a course of 7 to 10 days regardless of treatment but it is important to realize that these infections are permanent and that herpesvirus infections are recurring (a property of all types of herpes infections). In kittens, herpes infections are notorious for dragging out. Stresses such as surgery (usually neutering/spaying), boarding, or introduction of a new feline companion commonly induce a fresh herpes upper respiratory episode about a week following the stressful event and the active virus sheds for another couple of weeks. These episodes may recur for the life of the cat, although as the cat matures, symptoms become less and less severe and ultimately may not be noticeable to the owner. Cats infected with calicivirus may shed virus continuously, not just in times of stress, and may do so for life, although about 50% of infected cats seem to stop shedding virus at some point.

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When to be Concerned: Signs a Cat Requires Hospitalization

The next most common infectious agents (after herpes and calici) are *Chlamydomphila felis* (formerly known as *Chlamydia psittaci*) and *Bordetella bronchiseptica*, both organisms being sensitive to the tetracycline family, such as [doxycycline](#).

- Loss of appetite
- Congestion with open mouth breathing
- High fever (or the extreme listlessness that implies a high fever if you cannot take the cat's temperature).

A cold for a cat is usually just a nuisance like a cold usually is for one of us. Sometimes, though, an upper respiratory infection can be serious. If a cat is sick enough to stop eating or drinking, hospitalization may be needed to get through the brunt of the infection. A cat (usually a kitten) can actually get dehydrated from the fluid lost in nasal discharge. Painful ulcers can form on the eyes, nose or in the mouth, especially if calicivirus is involved. Sometimes fever is high enough to warrant monitoring. In young kittens, pneumonia may result from what started as an upper respiratory infection.

If you think your cat or kitten is significantly uncomfortable with a cold, you should seek veterinary assistance with an office visit.

How is this Usually Treated?

How an upper respiratory infection is treated depends on how severe it is and whether or not there seems to be a bacterial infection complicating the viral infection. A mildly symptomatic adult cat might need no treatment at all as the symptoms should naturally wane over one to two weeks. A heavily congested kitten is likely to need antibiotics, antivirals, and possibly even hospitalization. Oral medications, and/or eye ointments are commonly prescribed. Severely affected cats may need to have inhalational antibiotics, fluids administered intravenously or under the skin to maintain hydration, and/or some sort of assisted feeding.

Special Therapies

Some cats are severely affected and addressing the secondary bacterial infection is simply not enough to achieve comfort. For these situations, antiviral medications such as [famciclovir](#) can be used to address the viral infection and often even chronic symptoms can be controlled at least temporarily.

Cats are too small to be able to meaningfully blow their noses or sneeze out very dry or thick sinus secretions. Oral supplementation with N-Acetylcysteine can be helpful in breaking down this material.

Polyprenyl immunostimulant is a biological product made by Vetimmune[®] currently licensed by the USDA to treat feline herpes infection. This product is given orally once a day for 2 weeks and reportedly stimulates cellular immunity (as opposed to antibody-related immunity).

More chronically infected cats with severely blocked sinuses can have their sinuses flushed out under anesthesia. This can clear a great deal of material out of the nasal passages but how long results persist is variable.

Consult your veterinarian before attempting any sort of home treatment.

What are the Vaccination Options?

Vaccination is unlikely to be completely preventive for the upper respiratory viruses and is instead meant to minimize the severity of the symptoms. In selecting a vaccine against upper respiratory infections, there are some choices. First, choose between a nasal vaccine and an injectable vaccine.

The injectable vaccines that typically include feline distemper were developed first, and when vaccines for upper respiratory infections were created they were simply added to the basic distemper injectable vaccine. Since that time, science has developed a more localized form of vaccination to better address more localized types of infections.

If you select the injectable route of vaccination, you have to decide if you want a “four in one” or a “three in one” vaccine. You may vaccinate your cat for distemper, herpesvirus, and calicivirus, or you may vaccinate for distemper, herpesvirus, calicivirus, and *Chlamydomphila felis*. Because herpes and calicivirus together account for 90% of upper respiratory infections



Injectable vaccine syringe - Graphic by MarVistaVet

and *Chlamydomphila* accounts for less than 10% of upper respiratory infections, the American Association of Feline Practitioner vaccination guidelines favor the “three in one” vaccine and consider the *Chlamydomphila* vaccine optional.

There is some feeling that nasal vaccines may provide a more complete stimulation to the area of the immune system responsible for defense against the infection in question. Nasal vaccination provides protection especially rapidly (3 or 4 days). Herpes and calicivirus vaccines can be given either nasally or by injection.

A Few Words about Hemorrhagic Calicivirus

A particularly virulent strain of calicivirus, commonly referred to as hemorrhagic calicivirus, has appeared to pop up out of nowhere. While few outbreaks have been reported, it is possible more have occurred and gone unrecognized. Hemorrhagic calicivirus is highly contagious and rapidly fatal. While the infection is rare, you may wish to vaccinate your cat for it and/or discuss this option with your veterinarian.

A special vaccine, called “TruFel HC2PCh,” has become available from Elanco.

In Summary:

- When caused by herpes virus or calici, the viruses from these infections can become dormant and hide out in the body, but can reactivate, usually in response to stress. Some other causes of URIs do not make the cat a carrier, but they are less common.
- Signs: sneezing, nasal discharge, runny eyes, cough, sniffles, fever, mouth or nose ulcers
- The chief infectious agents for URIs are [herpesvirus](#) and calicivirus, which together are responsible for about 90% of infections. Those two agents cannot spread to people.
- Bleach will inactivate either virus.
- They are spread to other cats by the sneezes - or contact with any respiratory secretion - of infected or carrier cats.
- To become infected, a cat just has to socialize with an infected cat or share the same toys, food bowls, or human caretaker (through clothing and dirty hands).
- Infected cats typically come from the shelter, are outdoor cats, or are housed in close contact with lots of other cats.
- Because it is so common, it is likely that any feline adopted from a shelter has it.
- Kittens are predisposed because their immune systems are immature, and they are usually hit the hardest. When they grow up, they are still infected, and signs may come out whenever stress suppresses their immune system.
- Stresses such as surgery, boarding, or a new feline companion commonly induce a relapsing herpes upper respiratory episode.
- A cat with herpes is contagious to other cats for a couple of weeks after a stressful event throughout the cat’s life.
- Treatment depends on how mild (just sneezes) or severe (hospitalization) it is, and if a bacterial infection complicates the viral infection.

- A cat may need hospitalization if their appetite is lost, breathes with an open mouth, and has a high fever/listlessness.
- A heavily congested kitten is likely to need antibiotics and antivirals.
- Vaccination is unlikely to be completely preventive for an URI and will simply minimize the severity of signs but that can potentially mean the difference between being hospitalized and staying home.
- A nasal or injectable vaccine is available.
- Virulent calicivirus (or FCV-associated virulent systemic disease) is rare but can occur, typically in stressed populations, and can cause severe disease.

[Back to top](#)

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