



Feline Upper Respiratory Infection

The Pet Health Care Library

Symptoms

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

What Cats are at Risk?

Despite the highly contagious nature of all the feline upper respiratory agents, it is important to realize that most cats are at small risk for exposure. In other words, in order to get this kind of infection, a cat must be in the same home as an infected cat or share the same human caretaker, toys or food bowls. 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 who is not exposed to any rescued kittens, lives with only one or two other cats at most, and never goes outside is unlikely break with infection. *Kittens are predisposed* due to their immature immune systems and are usually hit the hardest.



The chief infectious agents that cause feline upper respiratory infections are: herpesvirus and calicivirus, together accounting for about 90% of infections. Other agents include: *Chlamydophila*, *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 on infected or carrier individuals. The herpesvirus is fragile, surviving only 18 hours outside its host; calicivirus is tougher, lasting up to 10 days. Bleach will readily inactivate either virus but calicivirus is able to withstand unbleached laundry detergents.

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.

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

When to be Concerned

SIGNS A CAT REQUIRES HOSPITALIZATION

- 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 support him or her 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. 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?

Since 90% of cases are viral in origin and we have no antibiotics against viruses, it seems odd that feline upper respiratory infections are frequently treated with anti-bacterial medications. The reason for this is that it is common for these viral infections to become complicated by secondary bacterial invaders. The antibiotics act on these.

Furthermore, the next most common infectious agents after herpes and calicivirus are *Chlamydophila felis* (formerly known as *Chlamydia psittaci*) and *Bordetella bronchiseptica*, both organisms that are sensitive to the tetracycline family such as doxycycline. For this reason, when antibiotics are selected, tetracyclines and their relatives are frequently chosen. (Since tetracycline use can permanently stain the teeth of immature animals, these medications are generally not chosen for younger pets.) Oral medications and/or eye ointments are commonly prescribed

For congestion, some human nose drop products can be used for relief. Consult your veterinarian before attempting any sort of home treatment. Other therapies frequently employed include low doses of interferon-alpha to stimulate the immune system and oral lysine supplementation, which interferes with herpesvirus reproduction.

For younger infected kittens, often the most significant factor in their ability to throw off infection is maturation and gaining a more effective immune system with growth.

Occasionally infections can lead to more chronic symptoms,
such as gingivitis (gum inflammation), conjunctivitis, or nasal congestion.

What are the Vaccination Options?

In selecting a vaccine against upper respiratory infections, there are some choices one can make. First, one must 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 *Chlamydophila felis*. Because herpes and calicivirus together account for 90% of upper respiratory infections and *Chlamydophila* 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 *Chlamydophila* 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. A vaccine called Calicivax is available from Fort Dodge Animal Health just for this form of calicivirus. While the infection is rare, you may wish to vaccinate your cat for it and/or discuss this option with your veterinarian.



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