



WINN FELINE FOUNDATION

For the Health and Well-being of All Cats

637 Wyckoff Ave., Suite 336, Wyckoff, NJ 07481 • www.winnfelinefoundation.org
Toll Free 888-9MEOWIN (888-963-6946) • Local Phone 201-275-0624 • Fax 877-933-0939

Upper Respiratory Infections in Cats

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Upper Respiratory Tract Infections (URTIs) in cats are ubiquitous worldwide and represent some of the most common presenting complaints in feline practice. URTIs are infections of the nose and sinuses that very often also affect the eyes, oral cavity, and throat. General signs include sneezing, discharge from the eyes or nose, fever, lethargy and loss of appetite. URTIs may be acute or chronic, and range in severity from minor inconveniences to severe, life threatening illness.

Feline URTIs are not a single disease entity, but rather a “complex” of multiple agents that may interact in a variety of ways to create disease. The two most common agents of upper respiratory disease in cats are the viruses, feline herpesvirus (FHV, or also known as FHV-1) and feline calicivirus (FCV). FHV is also called feline viral rhinotracheitis. FHV and FCV are each found in about 40% of cats with upper respiratory tract disease. The major agents at play are described below.

Feline Herpesvirus-1 (FHV-1)

Feline herpesvirus is related to other herpesviruses, such as those that cause cold sores and chicken pox in humans. However, FHV can only infect cats and not humans.

FHV tends to produce more severe signs of disease than any other cause of upper respiratory tract disease. After incubation from 2 to 6 days, affected cats may become depressed, lose appetite, and suffer from fever and sneezing. The disease commonly causes corneal ulcers (damage to the outer layer of the eye). In the acute stages of the disease, the virus may damage the turbinate bones in the nasal cavity, leading to chronic sinusitis later in life. Cats with chronic sinusitis suffer from bouts of sneezing and purulent nasal discharge for months to years. This virus is spread directly from cat to cat via secretions from the eyes, nose and mouth, as well as over a distance by sneezing. FHV can only survive for 18 hours in the environment.

Almost all cats infected with FHV become carriers. The virus is able to enter latency, or become dormant, and hide in nervous tissue in the cat. During latency, no virus is shed and the cat cannot infect others. However, the virus can be reactivated, often after a stressful event, such as having kittens or treatment with drugs such as corticosteroids. In the reactivated state, the cat will again shed virus starting about one week later, and usually lasting for about a two-week period. The affected cat often has a recurrence of mild respiratory signs at the same time.

Calicivirus (FCV)

Feline calicivirus, along with FHV, is a leading cause of infectious upper respiratory tract disease in cats. FCV is related to other caliciviruses that cause disease in humans and other animals, such as Norwalk virus. Like FHV, FCV does not infect humans.

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FCV is usually associated with milder disease than FHV, although it can be associated with a wide spectrum of clinical signs. These can range from subclinical infections where cats have no signs at all, to fatal pneumonia (especially in kittens). Calicivirus often causes ulceration of the tongue, palate, and oral cavity and may be associated with chronic stomatitis. In addition, some strains of FCV cause an illness characterized by acute lameness and fever with no respiratory symptoms.

In the past decade, new strains of calicivirus have caused serious illnesses and deaths in several outbreaks in the United States. These strains appear to cause a virulent hemorrhagic disease with a high mortality rate. They are highly infectious and spread readily in multi-cat facilities, such as shelters. Several outbreaks have been recorded, each due to a new mutant strain. While concerning, these have not been as prevalent as previously feared.

Mycoplasma felis

Mycoplasma felis is an “atypical” bacterium that resides in the respiratory tissues of the nasal passages of cats. This bacterium is rarely able to cause disease on its own, but contributes to disease in the presence of other infectious agents. It may be associated with inflammation of the nasal passages, throat, and ocular membranes.

Mycoplasma felis has also been shown to affect the lower respiratory tract of cats where it causes asthma-like signs.

It is important to differentiate the respiratory pathogen “*Mycoplasma felis*” from the blood pathogen “*Mycoplasma hemofelis*” which, while related, causes radically different symptoms.

Chlamydia felis

Also commonly called “*Chlamydophila felis*”, this bacterium commonly causes inflammation of the conjunctiva (tissue around the eyes). This usually presents as watery eye discharge, redness of the eyes, squinting, and discomfort. It may also cause inflammation in the nose and lower respiratory tract.

Chlamydia felis may be shed in respiratory secretions for several months after infection. It is not contagious to humans.

Other Bacteria

Other infectious agents including various species of streptococcus, bordetella, and others often infect cats with upper respiratory infections. These represent secondary or tertiary pathogens and are rarely the primary cause of disease.

Treatment Options

Treatment of feline URTIs are highly variable, as would be expected of such a diverse and complex disease process. Focus of treatment is on minimizing clinical signs and improving quality of life, not necessarily on eradicating the underlying cause. Animals infected with FHV-1 are rarely cured of infection, but rather enter a clinical remission. Secondary bacterial infections, however, may be cured.

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Antibiotic therapy is often utilized to treat secondary bacterial infections. A wide variety of antibiotics are utilized for this. Tetracyclines (such as doxycycline or minocycline) and azithromycin are often utilized for their efficacy against mycoplasma and chlamydia, as well as other bacteria. Fluoroquinolones (such as enrofloxacin) are effective, but may be “overkill” in many circumstances due to their wide spectrum of activity, and may not effectively clear some infections. Beta-lactams are often avoided as they lack efficacy against mycoplasma.

Antivirals targeting herpesvirus are becoming a common method of managing URTIs. Famciclovir is the most utilized drug in this class, and shows some promise in treating the viral component of these diseases. It is important to remember that antivirals will not treat bacterial infections and as such are often used in combination with an antibiotic

The use of oral L-lysine supplements has been advocated in the past for the treatment of herpesviral infections. While initial laboratory and clinical data indicated some efficacy, more recent information suggests that treatment is ineffective. While side effects of treatment are minimal, current recommendations are to avoid the use of lysine for URTI treatment.

NSAIDs are commonly used to reduce pain and inflammation and break fevers in infected animals. These are often combined with appetite stimulants, fluid therapy, and pain medications in severely affected cats.

Topical drugs such as eye and nose drops are utilized in many situations to treat focal disease or in the face of severe infections. These may include antibiotics (tobramycin, tetracyclines, fluoroquinolones), antivirals (ganciclovir, cidofovir), and anti-inflammatory drugs.

While the majority of URTIs are fairly minor and self-limiting, they may progress to more severe disease, especially in immunosuppressed cats (the very young or elderly, FIV infected, or animals on immunosuppressant medications). There may also be longer-term effects of upper respiratory infections, including repeated flare-ups of disease, corneal ulcers, blocked tear ducts or chronic nasal/ocular discharge.

Vaccines are available and commonly utilized against Feline Herpesvirus 1 and calicivirus. While the vaccines are efficacious, maximum effect requires vaccination prior to infection. This is difficult in many cases, as cats may be infected prior to ever seeing a veterinarian. Viral respiratory disease is a problem especially in multi-cat households and in kittens where maternal immunity may disappear before vaccinations have begun. Regular vaccination may help to reduce the frequency of flare-ups and infection with multiple strains of disease.

Please Note: Winn Feline Foundation provides the feline health information on this site as a service to the public. Diagnosis and treatment of specific conditions should always be in consultation with one's own veterinarian. Winn Feline Foundation disclaims all warranties and liability related to the veterinary information provided on this site.

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For more information:

International Cat Care

<http://icatcare.org/advice/cat-health/feline-herpes-virus-fhv-infection>

<http://icatcare.org/advice/cat-health/feline-calicivirus-fcv-infection-0>

<http://icatcare.org/advice/cat-health/cat-flu-%E2%80%93-upper-respiratory-infection>

ASPCA

<http://www.aspcapro.org/resource/shelter-health-animal-care-disease-management/feline-uri>

References:

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