Chronic Nasal Discharge in Cats

What is the Upper Respiratory Tract?

The upper respiratory tract includes the nose, the throat, including the pharynx and larynx and the windpipe or trachea. The surface of the respiratory tract is lined with a mucous membrane, which is essentially a tissue that contains cells that secrete a protective mucus coating onto the tissue surface. The eyeballs and inner surfaces of the eyelids are covered by conjunctiva, a membranous tissue that has a similar structure to the respiratory mucous membranes (for further information, see "Conjunctivitis"). Tears drain from the eyes through a tube called the lacrimal duct, which drains into the back of the nose. Thus, the conjunctivae are often grouped in as part of the upper respiratory tract and may be affected with upper respiratory disease.

What are the signs of a chronic upper respiratory infection?

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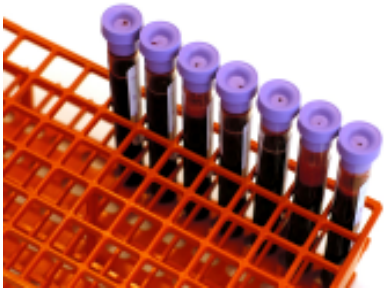


The term "chronic" means long lasting. When signs of upper respiratory tract inflammation, such as sneezing or nasal and ocular (eye) discharge, persist over weeks or months, or when they tend to recur at intervals of a few weeks, this is referred to as Chronic Upper Respiratory Tract Disease. A runny or stuffed-up nose ("sniffles") is the most common clinical sign. The nasal discharge tends to be thick and often is yellow. It may also be red-tinged (fresh blood) or brown (older blood). One or both nostrils may be involved. Because smell is so important in appetite, many cats have poor appetite and lose weight. There may also be some inflammation in the throat making swallowing uncomfortable. This may lead to drooling. The cat may have a chronic discharge from one or both eyes. In severe cases, facial swelling and resentment of handling or touching the face may occur. In some cases, the chronic signs are relatively mild, such as episodes of sneezing and a clear discharge. Cats with mild symptoms usually have normal appetites. In these milder cases, the distress to the owner of the constant sneezing or runny nose and eyes may be more than the distress to the cat.

What are some of the main causes of chronic upper respiratory tract disease?

There are many causes of this relatively common problem in cats. Feline Viral Rhinotracheitis (feline herpesvirus) and Calicivirus were the primary causes of chronic upper respiratory tract disease prior to the development of vaccines in the 1970's. These viral infections caused such severe mucous membrane damage in some cats that healing was incomplete and left the membranes susceptible to secondary bacterial infection. In addition, these upper respiratory viruses tend to persist in some cats, known as *carrier cats*, for weeks, months or years. In some, but not all, of these carriers, the chronic virus infection damages the protective mucous membranes and allows bacteria to invade the damaged tissues and cause the persistent clinical signs. Vaccinated cats that have not been given the appropriate booster vaccines (especially against feline herpesvirus) or have been exposed to particularly virulent strains, may still become infected with one or more of these viruses and later show chronic post-viral rhinitis and conjunctivitis.

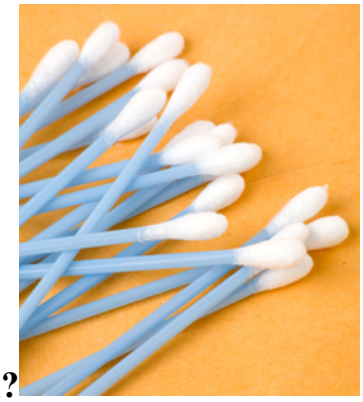
Chlamydophila felis and *Bordetella* are bacteria that can cause primary respiratory infections in cats. A group of organisms called *Mycoplasma* can cause primary respiratory and eye infections, or play a secondary role, along with bacteria such as *Pasteurella, Streptococci, Staphylococci*, and many others. There is no feline vaccine for any of these organisms except *C. felis*. The immunity provided by the C. felis vaccine is relatively short-lived and boosters are required on an annual basis (see our handout on Chlamydiosis).

"In unvaccinated cats, chronic upper respiratory tract disease is a relatively common problem."

In unvaccinated cats, chronic upper respiratory tract disease is a relatively common problem. The most common form is termed chronic post-viral or idiopathic rhinitis. In this condition viral infection (e.g. caused by feline herpes virus or feline calicivirus) causes the initial mucosal damage but the chronic signs relate to secondary bacterial infection of the damaged nasal passages. This may then lead to chronic osteomyelitis of the turbinate bones, which is a bacterial infection of the fine bones within the nasal sinuses.

What about other causes?

Some fungal infections can cause chronic upper respiratory tract disease; these infections are more likely in certain geographic areas. Cancer (neoplasia) affecting the upper respiratory tract is rare, but may need to be ruled out in certain cases. In a few cats non-cancerous nasal polyps may cause chronic sneezing and discharge. There may be occasions when your veterinarian will need to rule out other causes such as trauma, foreign bodies trapped in the nose, or even dental disease.



How is the cause diagnosed?

In order to determine the extent and nature of the disease it is important to get an accurate history. Any past respiratory or eye infections, previous trauma such as an accident or fight, or dental disease should be reported. Details such as the onset and progression of the problem and the color and consistency of the discharges are important. A thorough physical examination may also require blood work, swab samples for laboratory microscope examination and culture, radiographs and tissue biopsy. Culture of the discharge may reveal a variety of bacteria, but these are often secondary invaders. Anesthesia may be necessary for a thorough nasal examination or to acquire certain diagnostic samples.

How can this problem be treated?

The treatment will be determined by the test results and diagnosis. In many cases, no specific initiating cause can be found. Antibiotics typically give an initial dramatic improvement that is often short lived. Targeted nutritional supplements such as L-lysine that aid in mucous membrane repair and maintenance and general immune system stimulation can be helpful, especially in chronic viral infections. In spite of our best efforts, some cases remain chronic or at least recurrent. Our treatment goal in these cases is to reduce the cat's discomfort through periodic medication and improve its quality of life.

Ernest Ward, DVM