



Chronic Nasal Discharge Or Chronic Upper Respiratory Tract Disease

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What is the Upper Respiratory Tract?

The upper respiratory tract includes the nose, throat, including the pharynx and larynx and the windpipe or trachea. Because the mucous membrane covering the eyeball and eyelids is a similar tissue (ask for our Conjunctivitis handout) and also because the eye is connected by a draining tube called the lacrimal duct that carries tears to the nose, these are also considered associated parts of the upper respiratory tract.

What are the features of chronic upper respiratory infection?

The term “chronic” means long-lasting. When signs of upper respiratory tract inflammation such as sneezing or nasal and ocular discharge persist over weeks or months or 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 yellow and purulent. It may also be red-tinged (fresh blood) or brown (older blood). One or both nostrils may be involved. There may also be chronic eye discharge. Facial swelling and resentment of handling or touching the face may occur. 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 of saliva. 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 pet.

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 and Caliciviruses were the primary causes of chronic upper respiratory tract disease prior to the development of vaccines in the 1970's. Herpes virus infection is also common in cats and is the most common cause of conjunctivitis in cats. Many cats are infected with feline herpes virus (FHV-1) and do not show any signs of clinical illness (i.e. they have a latent infection). Fortunately, less than 45% of adult cats with latent herpesvirus infection develop recurrent infections. In most cases, herpes virus infections are self-limiting and will resolve within two to three weeks. Rarely, viral infections can cause such severe mucous membrane damage in some cats that healing is incomplete and the mucous membranes become 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 exacerbates the mucous membrane damage and helps maintain the bacterial infection that is the main cause of clinical signs. Even vaccinated cats may still become infected with one or more of these viruses and later show chronic post-viral rhinitis and conjunctivitis.

Chlamydia and *Bordetella* are other respiratory infections that can be prevented by vaccination although the immunity is often incomplete. The group of organisms called *Mycoplasma* can set up primary respiratory and eye infections, or play a secondary role, along with bacteria such as *Pasteurella*, *Streptococci*, *Staphylococci*, and many others. There is no vaccine for any of these organisms.

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 nose.

What about other causes?

More unusual causes of upper respiratory tract disease include fungal infections. These 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 infections or periods of nasal or ocular discharge, previous trauma such as an accident or fight, or dental disease should be reported. Carefully recollect the onset and progression of the problem and the color and consistency of the discharges. A thorough physical examination may also require blood work, swab samples for laboratory microscope examination and culture, and even radiographs and tissue biopsy. 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 cause can be found, but the most likely sequence will have been a prior viral infection and now secondary bacterial infection and inflammation. Culture of the discharge may reveal a variety of bacteria involved. Antibiotics typically give an initial dramatic improvement that is often short lived. Targeted nutritional supplements such as L-lysine to aid in mucous membrane repair and maintenance and general immune system stimulation can be helpful, especially in chronic viral infections. Over-the-counter nasal decongestants (Afrin-type sprays) may also be of some help. 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.

ADDITIONAL INSTRUCTIONS: