



CHRONIC NASAL DISCHARGE

What causes chronic upper respiratory tract disease?

Chronic upper respiratory tract (URT) disease is a relatively common problem in cats, and can have many causes. The most common form is termed chronic post viral or idiopathic rhinitis. In this condition viral infection (e.g. cat 'flu' - caused by feline herpes virus or feline calici virus) causes the initial mucosal damage; but the chronic signs relate to secondary bacterial infection of the damaged nasal passages. This may then lead on to chronic osteomyelitis of the turbinate bones and cartilage (bacterial infection of the fine bones within the nose).

More unusual causes include:-

1. Fungal infections including cryptococcosis.
2. Inflammation which can result in polyps of inflammatory tissue.
3. Neoplasia (cancer) which can be localised within the nose, or be part of more widespread disease.
4. Physical damage which can result from foreign objects getting stuck up the nose, facial trauma (e.g. from cat bites or car accidents), or be associated with severe dental disease.

What are the clinical signs of chronic URT disease?

The main signs are nasal discharge and difficulty in breathing i.e. chronic 'snuffles'. The exact nature of the discharge, whether both sides of the nose are affected, and the presence of other clinical signs are dependent on the exact nature of the disease process occurring within the nose, and on the presence of any other illness the cat may have.

In order to determine the extent and nature of the disease it is important that the cat be given a thorough physical examination by a veterinary surgeon. Particular points that the vet will look for include:-

1. The presence of **nasal discharge**, and whether it is bilateral (affecting both sides of the nose) or unilateral (affecting only one side of the nose). Some diseases tend to show unilateral signs (e.g. foreign bodies, or cancer), while others more often cause bilateral signs (e.g. chronic post viral rhinitis, cryptococcosis). The type of discharge can also be important; whether it is clear, purulent (pus), or blood stained. Although the presence of a discharge can be helpful in making a diagnosis, it can on occasion be misleading.

2. **Facial swelling** may indicate a more serious underlying problem such as cancer or fungal infections arising within the nasal chambers. Although facial pain is seen rarely, resentment of facial examination is common among cats with URT obstruction, especially those with intranasal foreign bodies, or polyps.
3. **Sneezing, difficulty in breathing, noisy breathing and mouth breathing** may all be seen, but their presence is usually of little diagnostic value.
4. Examination of the eyes may reveal ocular discharge '**runny eyes**', usually resulting from tear duct damage associated with previous URT viral disease or post viral conjunctivitis, but occasionally associated with cancer within the nose. Another legacy of URT viral infection can be the development of chronic inflammation of the cornea (the clear front part of the eye).
5. Evidence of **painful or infected ears** may be associated with inflammatory polyps. Cats with polyps may have problems eating if the polyps are large enough to cause obstruction at the back of the throat, and these cats often have a snoring type of breathing.
6. Cat's with URT obstruction often have a poor appetite and so experience a degree of **weight loss**. Marked weight loss is more suggestive of cancer, fungal disease or severe systemic disease.
7. The **size and shape of the kidneys** may be altered if certain cancers are present.
8. Mild to moderate **enlargement of the lymph nodes (glands)** at the angle of the jaw is common, resulting from a local inflammatory response. If the lymph nodes become very large, or if lymph nodes elsewhere in the body are also affected, cancer or fungal infections are most likely to be the cause.

Over-interpretation of clinical signs can be very misleading since different diseases can give rise to similar signs. However, a few general rules do apply, e.g. facial deformity (changes in face shape) with associated pain, especially if accompanied by a unilateral nose bleeds or marked lymph node swelling is suggestive of more serious underlying problems such as nasal cancer or fungal disease. Lack of these clinical signs does not rule out these diagnoses as some cases of nasal lymphosarcoma (a common type of cancer) can cause bilateral nasal obstruction and little nasal discharge of any kind. Although post viral rhinitis usually presents as chronic bilateral purulent discharge, it

can also result in unilateral discharge, sometimes blood tinged and occasionally with severe nose bleeds after 'sneezing fits'.

Does the history of the cat make a difference to the likely diagnosis?

Yes. It is very important to know the answers to a number questions relating to the cat's previous experiences. e.g.

1. Did the cat have an acute URT infection (cat 'flu) as a kitten? This is the most common initiating cause of chronic rhinitis.
2. Is there any history of facial trauma, dental disease or ear infections?

3. At what age did the cat first develop the clinical signs? The age of onset and speed of onset of clinical signs can often be misleading, but can occasionally be of help in the diagnosis.
4. Has the nasal discharge always been of the same type, consistency and colour, and has it always been unilateral or bilateral? Are the signs progressing, is the cat systemically ill, and has the cat responded to any previous treatments? The answers to these questions may help determine the underlying cause of the problems.

My cat had ‘flu as a kitten and has had ‘snuffles’ ever since, although he is well in himself. Should I ask the vet to find out what is wrong with him?

Arrange for your vet to examine your cat but if chronic post viral rhinitis is believed to be the most likely cause of the patients clinical signs, and the cat is not too distressed by the nasal discharge, it is probably best not to put it through further examinations. Further investigations are generally best left for cats with severe or progressive clinical signs, or those with evidence of generalised disease.

When considering treating cats with **severe** chronic URT disease it is helpful, (where possible), to differentiate between the possible underlying causes. This allows for the correct treatment to be given and the probable outcome to be discussed. However, since most cases of URT disease will result from chronic post viral damage, it is important to remember that tests may give negative results and the likelihood for full recovery, even with treatment, may be guarded to poor.

What tests can be done to find the cause of the disease?

1. **Non-invasive tests**, such as haematology, biochemistry and tests for FeLV and FIV may help to determine the extent of systemic disease.
2. Nose and throat **swabs** may be taken to look for the presence of fungi.
3. For the best hope of finding a diagnosis it is necessary to give the cat a general anaesthetic in order to perform more extensive investigations. These include taking **radiographs (X-rays)** and **examining the nose and mouth**. Detailed examination includes looking up the cat’s nose, and examining behind it’s soft palette (the flap of skin at the back of the throat). While examining the nose it is possible to take samples to look for bacteria, fungi, evidence of inflammation or cancer cells. These methods do not allow very good access to the nasal chambers, so it is possible that underlying disease may sometimes be missed. Deep biopsies of the nasal cavity with special forceps are very helpful in obtaining an accurate diagnosis.

Can chronic URT disease be treated?

Yes, but in only some cases is treatment likely to give a long term cure. In most cases the clinical signs can merely be controlled, since the chronically damaged bones cannot be repaired.

Antibiotics can be given to reduce secondary bacterial infection. However to control the clinical signs it is usually necessary to give them for long periods of time or as repeated courses in order to control the clinical signs. Some cases can be permanently cured with long courses of expensive antibiotics. In the remaining cases it is generally hoped that with time the cat, and its owners, will learn to live with the cat’s disease, without the need for repeated courses of antibiotics.

Other treatments that can be considered include drugs to reduce the thickness of the nasal secretions (mucolytics), or treatments to help the cat breathe more easily (anti-congestants or steam inhalation). If the cat is severely affected by 'snuffles' and is undergoing further investigation, it is possible to therapeutically flush the pus from the nasal passages while the cat is under general anaesthetic. Although this procedure can occasionally give some degree of short term relief, the clinical signs usually return. The most essential aspect of treatment is good nursing care; keeping the cat's face clean and clear of discharge, and encouraging it to eat by feeding warmed up food that is strong smelling.

Specific treatments can be given where a specific causes have been found, e.g. polyps can be surgically removed, some cancers can be controlled with chemotherapy, and fungal disease can be cured with anti-fungal drugs.