



POST-RADIOTHERAPY RHINITIS FOR DOGS

Owner Information Sheet



What Is It?

- Rhinitis is inflammation of the nasal cavity.
- It's common for dogs to develop rhinitis after nasal radiotherapy.
- This typically occurs because the tumour has destroyed many of the normal functions of the nasal cavity, and even with a good response to radiotherapy, this will not be restored. As the tumour breaks down inflammatory chemicals are released and radiation causes local tissue inflammation too.

Why Does It Happen?

- **Tumour Breakdown:** As radiotherapy works, tumour cells die and release inflammatory substances that trigger nasal inflammation.
- **Radiation Effects:** Radiotherapy itself irritates and damages the delicate tissues inside the nose.
- **Loss of Nasal Function due to tumour:** The nasal cavity has many important functions, including:
 - Filtering dust, allergens, and particles
 - Warming and humidifying air
 - Trapping bacteria and viruses
 - Producing mucus to protect the airwayWhen a tumour invades and destroys the fine bony structures in the nose (which most nasal tumours do), these functions are disrupted. Even when the tumour is successfully treated, the nasal cavity is left permanently abnormal and unable to fully recover.
- **Combined Damage:** The combination of tumour destruction and radiation effects creates an environment prone to **chronic inflammation**, ongoing discharge etc

Common Signs

- Sneezing
- Nasal discharge (clear, cloudy, or blood-tinged)
- Congestion or noisy breathing
- Increased nasal sensitivity

How Long Does It Last?

- Symptoms often peak within weeks after radiotherapy and may gradually improve.
- In some dogs, inflammation becomes chronic, particularly where severe structural damage has occurred.
- In many dogs it can be lifelong and require intermittent or ongoing therapy.

What Can Help?

Treatment is mainly supportive. It is important to know that some pets will not have significant symptom relief from any of these.

Whilst trying one or two medications first is reasonable, before long-term therapies it is recommended to perform at least a CT scan of the nose to ensure there is no tumour progression or other pathology.

Options your vet may consider include:

- **NSAIDs (e.g., meloxicam, Previcox)** – reduce inflammation (if not already prescribed)
- **Antihistamines** – may help reduce nasal irritation
- **Doxycycline** – antibiotic with additional anti-inflammatory properties
- **Other antibiotics** – if bacterial infection is suspected

- **Steam therapy** – placing your dog in a steamy bathroom for 10–15 minutes (supervised) can help loosen mucus
- **Bisolvon** – a mucolytic that helps thin nasal secretions
- **Steroids** – occasionally used in persistent cases, though not always effective (cannot be given simultaneously with NSAIDs)

Note: Some dogs do not respond significantly to treatment due to the irreversible structural damage in the nose.

Who Can Help?

- Your local vet can help manage symptoms with medications and advice.
- Your referral hospital or oncology team can assist if further investigations or imaging are needed.

When to Worry About Tumour Progression

- While recurrence shortly after treatment is uncommon, if nasal signs worsen or persist, your vet may recommend a CT scan to check for tumour progression and assess the condition of the nasal cavity. CT imaging +/- rhinoscopy (passing a camera inside the nasal cavity to take a look and take biopsy samples for culture and to look under the microscope)

