

## Diseases of the Nose Page 1

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There are several diseases that can cause crusting, bleeding or loss of pigment on the nose and they all can look identical. Therefore, a systematic approach is required to achieve a definitive diagnosis and avoid confusion of look-a-like diseases. Not only does the clinical appearance of most nose diseases look similar, but even a biopsy taken from the nose with any of these diseases could look alike. Experience, correct management and knowing where best to take a biopsy from are the key to getting an accurate diagnosis. Many nose diseases are immune mediated diseases but some can be infections or cancers. The following are some of the more common nose diseases we see:

- Discoid lupus erythematosus (DLE)
- Pemphigus
- Sun induced changes (solar dermatitis)
- Mucocutaneous pyoderma

### **Discoid lupus erythematosus**

Discoid lupus erythematosus (DLE) is a disease where the immune system malfunctions and attacks the skin, usually affecting the nose. The exact mechanism is not known, but the disease is likely genetic and triggered by sun exposure.

**It can occur in any breed of dog but is most commonly seen in:**

- Collies
- Border Collies
- Shetland Sheepdogs
- Spitz breeds
- Kelpies

### **What does DLE look like?**

DLE typically affects the nose and rarely the face, ears or feet. The black colour disappears from the nose leaving it first grey then becomes pink as more pigment is lost. This often occurs on the top of the nose where the hairless nose pad joins the haired skin on the bridge of the nose. This is followed by thinning of the skin (the nose pad loses its “fingerprint” and becomes smooth) and over time the area becomes red and ulcerated with scabs (crusts). In some cases there can be severe bleeding from the affected area.

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### How is DLE diagnosed?

There are a number of skin diseases that look very similar to DLE and a diagnosis is made from the appearance of the lesions, ruling out infections first followed by histopathology (biopsy). Diagnosis is dependent on taking the right samples for histopathology and the nose is a technically a difficult area to biopsy accurately to make sure the right diagnosis is achieved. To maximize the chance of an accurate diagnostic biopsy if DLE is suspected, a referral to a veterinary dermatologist may be worthwhile.

### How is DLE treated?

Depending on the severity of the DLE, there are various treatment options. Sun avoidance during peak UV times is always recommended. This will include use of sunscreens or nose coverings. We typically tend to use topical therapies rather than rely on immunosuppressive medications (tablets) that risk more side effects for the patient. In order to use topical therapies correctly it will require an experience assessment of the patient.

Although most cases respond well to therapy, often improvement is not quite 100%. In mild cases, especially in winter time, simply UV avoidance can result in remission. Most cases will require life-long therapy to control the skin lesions. For this reason it is important to find just the right combination of medication for your pet that will avoid the long-term side effects of oral medication.

### Pemphigus

There are various forms of pemphigus. This too is an immune mediated disease but is a more serious type of skin disease that may or may not be isolated to the nose. In most cases there are skin lesions elsewhere on the face and body.

The accurate diagnosis of pemphigus requires similar steps to the diagnoses of DLE.

Treatment of this disease is much more complex and whilst may involve topical medication it often involves systemic medications (tablets). Studies have shown that treatment of this disease is best handled by a specialist dermatologist. Too many pets are euthanased due to poor management and a perception that treatments will never work.

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### **Solar dermatitis**

Through chronic exposure to the sun, the skin will burn, blister and crust. This occurs in breeds where there is pink skin on the body or nose. The pink skin may be normal for any individual but equally there are skin diseases that simply cause pigment loss which then exposes the skin to solar dermatitis. When solar dermatitis occurs, it is always important to not only address the sun exposure and subsequent skin sunburn but also the reason for the loss of pigment in the first place.

### **Mucocutaneous pyoderma**

Mucocutaneous pyoderma (MCP) is simply an infection of the mucous membranes. This includes the nose, lips, the bottom and sometimes the belly skin even though the belly skin is not a mucous membrane. It can look identical to DLE or pemphigus. In some cases the nose develops deep fissures and spontaneous bleeding can occur.

Diagnosis requires samples taken for cytology (looking under the microscope). The clinical appearance can help and also the previous response to antibiotics. Antibiotics will be required for at least 3 weeks and sometimes longer if an infection was deep and there is fissuring. There must not be any cortisone used in treating infections or there will be false improvement. Problems relapse quickly when medications are stopped, giving you a false indication of an immune mediated disease - which this is not.

If overall you have a pet with a nose problem that is not well controlled, then it is strongly recommended that you seek a referral to a specialist veterinary dermatologist for assessment. Poor control of nose disease can lead to cracking (fissuring), deep infection, sun induced skin cancers and in severe cases erosion of the nose back to the nose bones. This can be quite debilitating for the patient.