

Pemphigus

- Pemphigus is a potentially fatal autoimmune disease of the skin.
- Skin cells are under attack by the dog or cat's own immune system.
- Pemphigus can be treated with short- or long-term use of immunosuppressive medications.
- Disease resistance to treatment and side effects of medications account for most deaths caused by this disease.
- **Generalized:** Skin changes occur over most of the skin's surfaces, and non-skin related signs may also be seen, such as pain, itching, fever, lameness

Pemphigus vulgaris (severe lesions)

- Deep erosions, blisters, and crusts may be located in the mouth, armpits, and groin
- Pain, fever, appetite loss

What Is Pemphigus?

Pemphigus is an autoimmune disease in which the body attacks the connections between its own skin cells, causing blisters to form on the skin and mucus membranes. Autoimmune diseases result when the body's immune system does not recognize itself. Cells that normally attack invading viruses and bacteria begin attacking the body's own cells, causing damage. The term *pemphigus* comes from the Greek word for pustule (a blister on the skin that is filled with pus).

In pemphigus, sores form where the skin cells can no longer bind to one another. Several forms of pemphigus affect dogs and cats. The three most common ones are pemphigus erythematosus, pemphigus foliaceus, and pemphigus vulgaris. The first two forms lead to the destruction of the skin's surface cell connections, resulting in disruption of the skin surface. Pemphigus vulgaris affects the underlying tissues and leads to deep ulcers in the skin.

What Are the Signs of Pemphigus?

The signs of pemphigus vary by form. They include:

Pemphigus erythematosus (mild lesions)

- Scales, crusts, pustules, redness, and hair loss, generally found on the nose, ears, or face

Pemphigus foliaceus (moderate lesions)

- **Localized:** Scales, crusts, pustules, redness, and hair loss, located on the face, feet, and ears

How Is Pemphigus Diagnosed?

There are several possible reasons for the development of pustules, crusts, or blisters on the skin. They may be caused by allergic reactions to insect bites, food or environmental allergies, ringworm, mites, skin infections, or a variety of other conditions. In order to narrow down the list of possibilities, your veterinarian will ask for a thorough history, including questions about your pet's previous medical history, diet, medications, supplements, travel, exposure to the outdoors, and the use of flea and tick control products. After a full physical exam, your veterinarian may recommend preliminary tests such as blood work, bacterial culture and sensitivity testing, and skin scrapings.

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If initial testing does not identify the cause of the lesions, a skin biopsy (tissue sample) may be recommended. Pemphigus is diagnosed based on the appearance of the skin cells and their attachments to each other. The different forms of pemphigus are determined by the slight variations in these attachments.

How Is Pemphigus Treated?

Because pemphigus is caused by an overactive immune system, treatment is aimed at suppressing the immune

Common Conditions

system. Steroids (given at high doses) are the most common medication prescribed. Topical treatment may be enough in mild cases, but for more severe cases oral medication is needed to get the disease under control. Ideally, the medication can be tapered over time and eventually stopped altogether. However, many pets must receive medication for the rest of their lives in order to keep the disease in remission.

If infection has occurred in the damaged skin, antibiotics will also be needed. Some severe cases of pemphigus don't respond adequately to steroids alone and require stronger immunosuppressive drugs similar to those used to fight cancer.

Side effects of immunosuppressive drugs can limit their usefulness. They suppress the immune system as a whole, leaving the rest of the body susceptible to

infection. They can also cause other problems such as altered bone marrow functioning. In addition, long-term steroid use can cause other complications. Your veterinarian will discuss his or her treatment plan with you and will recommend the appropriate medication for your pet's condition.

What Is the Outcome for Pets With Pemphigus?

Pemphigus is a serious disease that, depending on the form, may result in death if left untreated. The most common cause of death is euthanasia, performed when medications are unsuccessful or their side effects are too severe. It is therefore very important to get a correct diagnosis and monitor treatment closely for recurrence and side effects.