

Alopecia

- Alopecia (hair loss) can occur when hair fails to grow at a normal rate or when hair is lost more quickly than it can grow back.
- Alopecia can result from a variety of medical conditions, including skin infections, hormonal diseases, and infestations with fleas or mites.
- Many causes of alopecia are treatable. If the hair follicle has not been permanently damaged or destroyed, the hair will grow back over time.

What Is Alopecia?

Alopecia is the medical term used to describe hair loss. Alopecia can occur when hair fails to grow at a normal rate, or when hair is lost more quickly than it can grow back. Alopecia should not be confused with increased shedding. Shedding (even year-round shedding in some pets) is a normal process and is not an illness. Shedding should only be a cause for concern if it is heavy enough to create areas of thinning hair or baldness consistent with alopecia.

What Causes Alopecia?

Hair growth occurs in a cycle and depends on a healthy, functioning hair follicle. Once a hair grows, it is maintained within a hair follicle until a new hair grows to replace it. When this occurs, the old hair is shed and the new hair is held within the hair follicle until it is shed and replaced in its turn. If hair follicles are damaged, destroyed, or affected by inflammation or infection, hair loss can occur and hair regrowth can be hindered. When this happens over a large enough area, alopecia or baldness can be observed. Alopecia can be caused by a variety of conditions. Conditions that can affect the hair follicle directly include the following:

- **Demodectic mange** (caused by microscopic *Demodex* mites living in the hair follicle)
- **Ringworm** (a fungal infection that causes skin flakes/cells and fungal organisms to clog the hair follicle)

- **Pyoderma** (a bacterial skin infection in which skin debris, bacteria, and inflammatory cells clog and damage the hair follicle)
- **Seborrhea** (a skin condition in which excessive flaking of skin cells causes clogging of the hair follicle)
- **Glandular or hormonal diseases** (such as thyroid disease and adrenal gland disease, in which the hair growth cycle is disrupted because of hormonal changes; secondary skin infections or seborrhea can also occur)

Alopecia can result when a pet damages its skin or pulls out its hair. Fleas, for example, can cause itchy pets to pull out their hair and create bald patches. Pets that are allergic to fleas experience even more intense itching and can remove their hair, create wounds on their skin, and develop secondary bacterial infections from repetitive scratching and biting.

Many causes of alopecia are treatable. If the hair follicle has not been permanently damaged or destroyed, the hair will grow back over time.

Cats can experience psychogenic alopecia, which is a compulsive grooming behavior often caused by stress or changes in the household. Cats with this condition may groom the hair on their flanks and back limbs until bald areas are created.

There are rare cases of congenital alopecia (meaning the pet was born with abnormally functioning hair follicles), and some breeds, such as dachshunds, can develop pattern baldness on their ears or elsewhere on the body.

What Are the Clinical Signs of Alopecia?

The most obvious clinical sign of alopecia is thinning of an area of hair, or hair loss significant enough to

Common Conditions

create bald spots. Other changes on the skin may help your veterinarian determine the cause of the alopecia. These include scabs, redness of the skin, excessive crusting or discharge, dandruff, or wounds. In some cases, such as with thyroid disease or other glandular conditions, the skin may look relatively normal except for hair thinning or hair loss.

Pets with alopecia may or may not have itching. In some cases, the hair may pull out very easily when the pet is touched.

How Is Alopecia Diagnosed?

A medical history and physical examination findings can provide valuable information for your veterinarian. The medical history may include trying to determine how long the hair loss has been going on and whether any other signs of illness have been observed. Physical examination findings may reveal evidence of underlying illness. For example, a dog with thyroid disease may be overweight and have a slower than normal heart rate, or your veterinarian may find fleas or “flea dirt” (flea feces) on a pet that has a flea infestation.

A diagnosis of alopecia means trying to identify an underlying cause. Your veterinarian may recommend specific tests to obtain more information about the condition of your pet’s skin:

- **Fungal culture:** If ringworm is suspected, your veterinarian can pluck a few hairs from several areas on your pet’s skin and place the hair samples on a culture medium (a substance that is used to grow microscopic organisms). This can be tested to confirm a diagnosis of ringworm.
- **Skin scraping:** If your veterinarian suspects demodectic mange, samples of skin associated with the hair follicle can be tested. This involves using a scalpel blade to gently scrape several hairless areas of skin. Because these mites live deep inside the hair follicle, the skin scraping must be deep enough to cause minor bleeding in order to capture samples that contain mites.

These samples can be examined under a microscope to check for mites.

- **Cytology:** Using a swab, or by gently touching the flat surface of microscope slide to the skin, samples of skin flakes and debris can be obtained for examination under a microscope to determine what types of inflammatory cells, skin cells, or bacteria may be present.
- **Bacterial culture:** If the skin is infected or wounds are present, your veterinarian may collect some of this material to identify specific bacteria.
- **Skin biopsy:** Using local anesthesia (or possibly sedation or general anesthesia) your veterinarian may want to obtain a small sample of skin tissue. This can be submitted to a diagnostic laboratory for examination of the skin cells, hair follicles, and other structures within the skin.

If your veterinarian suspects that alopecia may be caused by skin allergies, he or she may recommend a test to determine what the pet may be allergic to. Similarly, if an illness such as thyroid disease is suspected, blood testing or other specific diagnostic tests may be recommended.

How Is Alopecia Treated?

Treatment for alopecia should involve treating the underlying cause. Fortunately, flea infestation, mange, pyoderma, and many other causes of alopecia are treatable conditions. Medications given by mouth (such as antibiotics or antifungal medications), medicated shampoos, and products to control fleas may be recommended.

Once the underlying problem has been addressed, the hair follicles recover over time. If the hair follicles have not been permanently damaged or destroyed, the hair will grow back. However, if a skin infection or other skin trauma has been severe enough to damage or destroy hair follicles, areas of baldness may remain.