

Sorting Out Skin Diseases

from [Dog Owner's Home Veterinary Handbook](#)

The following tables serve as an introduction to skin diseases, and suggest where to look to find the cause of a problem.

The *itchy skin diseases* in the first table are characterized by constant scratching, biting at the skin and rubbing up against objects to relieve the itch.

The next two tables list diseases characterized by *hair loss* with few if any other symptoms. Hair loss can mean impaired growth of new hair, in which case it usually involves specific areas or the entire coat. Or you may see patches of hair loss on various parts of the body. In general, hair loss caused by hormonal diseases is symmetric (the same of both sides of the body), while that caused by parasites and other causes is asymmetric.

The next table lists diseases in which the predominant sign is skin infection - pyoderma. Pyoderma is characterized by pus, *infected sores, scabs, ulcerations, papules, pustules, furuncles, boils* and *skin abscesses*. The skin infection is often secondary to some other skin disease, particularly an itch skin disease that causes the dog to attack his own skin.

The table after that lists *autoimmune* and *immune-mediated* skin diseases, characterized by blebs. Blebs, also called vesicles, are blisters that contain clear fluid. Large ones are called *bullae*. All tend to progress through rubbing, biting and scratching, eventually producing skin erosions, ulcers and crusts. Look for these changes to appear first on the face, nose, muzzle and ears.

During the course of grooming, playing with or handling your dog, you may discover a lump or bump on or beneath the skin. To learn what it may be, see the last table on *lumps or bumps on or beneath the skin*.

Itchy Skin Diseases

Allergic contact dermatitis: Same as contact dermatitis, but rash may spread beyond area of contact. Requires repeated or continuous exposure to allergen (such as wearing a flea collar).

Canine Atopy: Severe itching that occurs in young dogs and begins in late summer and fall. Caused by seasonal pollens. Occurs in mixed breeds as well as purebreds. Common.

Chiggers: Itching and severe skin irritation between toes, and around the ears and mouth. Look for barely visible red, yellow or orange chiggers.

Contact dermatitis: Red, itchy bumps and inflamed skin at the site of contact with chemical, detergent, paint or other irritant. Affects feet and hairless parts of the body.

Damp hay itch (Pelodera): Red pimplelike bumps on skin. Severe itching. Occurs in dogs bedded on damp hay and similar grass.

Flea allergy dermatitis: Red, itchy pimplelike bumps over the base of the tail, back or rear legs and inner thighs. Scratching continues after fleas have been killed.

Fleas: Itching and scratching along the back, around the tail and hindquarters. Look for fleas, or black and white gritty specks in hair (flea feces and eggs).

Fly-bite dermatitis: Painful bites at tips of erect ears and bent surfaces of floppy ears. Bites become scabbed, crusty-black and bleed easily.

Food allergy dermatitis: Nonseasonal itching with reddened skin, papules, pustules and wheals. Found over the ears, rump, back of the legs and undersurface of the body.

Grubs: Inch-long fly larvae that form cystlike lumps beneath the skin with a hole in the center for the insect to breathe. Often found beneath chin or along abdomen.

Lice: Two-millimeter-long insects, or white grains of "sand" (nits) attached to hair. Not common. Found in dogs with matted coats. May have bare spots where hair has been rubbed off.

Lick granuloma (acral pruritic dermatitis): Red, shiny skin ulcer caused by continuous licking at wrist or ankle. Mainly in large, short-coated breeds.

Maggots: Soft-bodied, legless fly larvae found in damp matted fur.

Scabies (Sarcoptic mange): Intense itching. Small red spots that look like insect bites on the skin of the ears, elbows and hocks. Typical crusty ear

tips.

Ticks: Large insects attached to skin. May swell up to size of pea. Found beneath ear flaps and where hair is thin.

Walking dandruff (*Cheyletiella mange*): Occurs in puppies 2 to 12 weeks of age. Large amounts of dry, scaly, flaky skin over the neck and back. Itching is variable.

Hormone-Related Disease with Hair Loss

Cortisone excess: Symmetric hair loss over trunk and body. Abdomen is pot-bellied and pendulous. Seen with Cushing's syndrome. In some cases the dog is taking steroids.

Growth hormone-responsive alopecia: Bilaterally symmetric hair loss. Begins around puberty. Breed specific involvement.

Hyperestrogenism (Estrogen excess): Occurs in females and males. Bilateral symmetric hair loss in perineum and around genitals. Enlarged vulva and clitoris; in males, pendulous prepuce.

Hypoestrogenism (Estrogen deficiency): Occurs in older spayed females. Scanty hair growth and thinning coat, initially around vulva and later over body. Skin is smooth and soft, like a baby's.

Hypothyroidism: Most common cause of bilaterally symmetric hair loss without itching. Coat is thin, scanty and falls out easily. Involves the neck beneath the chins to the brisket, sides of body, backs of thighs and top of tail.

Other Diseases with Hair Loss

Acanthosis nigrans: Mainly in Dachshunds. Hair loss begins in armpit folds. Black, thick, greasy, rancid-smelling skin.

Color mutant alopecia (Blue Doberman syndrome): Loss of hair over the body, giving a moth-eaten look. Papules and pustules appear in areas of hair loss. Also affects other breeds.

Demodectic Mange: *Localized* - Occurs in puppies. Hair loss around eyelids, lips and corners of mouth, giving a moth-eaten look. Fewer than five patches, up to one inch in diameter. *Generalized* - Numerous patches that enlarge and coalesce. Severe skin problem complicated by pyoderma. Primarily affects young adults.

Nasal solar dermatitis (Collie nose): Loss of hair at junction of nose and muzzle. Can lead to severe ulceration. Affects dogs with lightly pigmented noses.

Pressure sores (Calluses): Gray, hairless, thickened pads of wrinkled skin, usually over elbows but may involve other pressure points. Caused by lying on hard surfaces.

Ringworm: A fungal infection. Scaly, crusty circular patches 1/2 to 2 inches across. Patches show central hair loss with a red ring at the periphery. Some cases show widespread involvement.

Sebaceous adenitis: Mainly in Standard Poodles. Symmetrical loss of hair over face, head, neck and back. Dandruff-like scales and hair follicle infection can develop.

Seborrhea: Dry type - similar to heavy dandruff. Greasy type - yellow brown greasy scales that adhere to hair shafts; rancid odor.

Zinc-responsive dermatosis: Crusty, scaly skin with hair loss over the face, nose, elbows and hocks. Caused by zinc deficiency. Arctic breeds most susceptible.

Skin Diseases with Pus Drainage

Actinomycosis and norcadiosis: Uncommon skin infections with abscesses and draining sinus tracts that discharge pus and respond slowly to treatment.

Acute moist dermatitis (Hot spots): Rapidly advancing patches of inflamed skin from which the hair falls out. The skin is covered with a wet exudate of pus. Progresses through self-chewing and results in pyoderma.

Cellulitis or abscess: Painful, warm, reddened skin, or pockets of pus beneath the skin. Look for a cause (such as a foreign body, bite wound, self-trauma from irritative skin disease).

Folliculitis (Hair pore infection): Hair shaft protrudes through center of pustule. *Superficial* - Similar to impetigo, but extends to involve armpit folds and chest. *Deep* - Pustules become larger and firmer. Pus, crusts and draining tracts in the skin.

Impetigo: Pimple-like bumps (pustules) and thin brown crust on hairless skin of abdomen and groin. Occurs in young puppies.

Interdigital cysts: A swelling between the toes that may open and drain pus.

Mycetoma: Painful swelling at the site of a puncture wound, usually on legs or feet. Pus drains through sinus tracts deep in the mass.

Puppy acne: Purplish red bumps (pustules) on the chin and lower lip. Not painful.

Puppy strangles (Juvenile pyoderma): Painful swelling of face (lips, eyelids, ears), followed by rapid appearance of pustules and draining sores. Occurs in puppies under four months of age.

Skin fold pyoderma (Skin wrinkle infection): Red, inflamed skin with a foul odor in lip fold, nose fold, vulvar fold and tail fold.

Autoimmune and Immune-Mediated Skin Diseases

Bullous pemphigoid: Similar to *pemphigus vulgaris* (see below), but usually begins at the junction of skin and mucous membranes. Mouth is commonly involved.

Discoid lupus erythematosus: Affects the flat surface of the nose. Ulceration and depigmentation are characteristic.

Erythema multiforme: Acute eruption of skin and mucous membranes. Often caused by drugs. Characteristic target-like eruptions with red rims and blanching at center.

Pemphigus erythematosus: Similar to pemphigus foliaceus, but restricted to face, head and foot pads.

Pemphigus foliaceus: Red skin patches (*macules*) that progress rapidly to pustules and then to dry yellow crusts. Usually limited to face (nose, muzzle, around eyes, ears). Crusts adhere to underlying skin and hair. Often becomes generalized. Depigmentation seen in late stage. The feet can become thickened and cracked. Occasionally only the foot pads are involved.

Pemphigus vegetans: Flat-topped pustules involving skin folds. Heals with wart-like growths.

Pemphigus vulgaris: Vesicles and bullae (small and large blisters) that ulcerate and form thick crusts. Usually found around the lips and in the mouth, but may be generalized. Ulceration of foot pads and shedding of nails are common.

Nodular panniculitis: Multiple lumps (like marbles beneath the skin) over the back and along the sides. Lumps open and drain, then heal by scarring.

Systemic lupus erythematosus: Skin involvement similar to pemphigus foliaceus. First sign may be wandering lameness. Ulceration of foot pads is common.

Toxic epidermal necrolysis: Severe, painful skin disease. Blebs and ulcers involve the skin, mucous membranes and foot pads. Large sections of skin are shed like a burn.

Lumps and Bumps on or Beneath the Skin

Abscess: A painful collection of pus at the site of a bite or puncture wound.

Basal cell tumor: Solitary nodule, usually on a narrow base or stalk. Found on the head, neck and shoulders of older dogs.

Ceruminous gland adenoma: A pinkish-white dome-shaped growth in the ear canal less than one centimeter in size. May become ulcerated and secondarily infected.

Epidermal inclusion cyst: A firm lump beneath the skin. May discharge cheesy material and become infected.

Hematoma: A collection of clotted blood beneath the skin; often involves the ear flaps.

Histiocytoma: Rapidly growing dome-shaped (buttonlike) growth found anywhere on the body, usually in young adults.

Lipoma: Smooth round or oblong growth beneath the skin; feels somewhat soft.

Mast cell tumor: Solitary or multiple growths usually found on the trunk, perineum and legs. Breed specific predisposition.

Melanoma: A brown or black pigmented nodule found in areas of dark skin. Growths in mouth and nailbeds usually are malignant.

Perianal gland tumor: A solitary or multinodular growth in the perineum around the anus. Occurs in older intact males.

Sebaceous adenoma: Smooth, pink, wartlike growth less than one inch in size. Most common on the eyelids and limbs. Occurs in older individuals.

Skin papillomas: These grow out from the skin and may look like a wart. Not painful.

Soft-tissue sarcomas: Ill-defined or well-demarcated masses of varying size and location. Often slow growing.

Squamous cell carcinoma: A nonhealing gray or reddish-looking ulcer found on the belly, scrotum, feet, legs, lips or nose; may resemble a cauliflower-like growth.

Transmissible venereal tumors: Ulcerated often multiple cauliflower-like growths on the genitalia of dogs and bitches.