



## **Nutrition, Allergies, Skin Disorders, and Stopping the Itch**

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**CHOOSING A NUTRITIONAL SUPPLEMENT** to keep both skin and hair healthy. Nutritional supplements are an important part of the medical therapy in treating many conditions. One of the most common of these is skin and coat disorders. Supplements often prevent or greatly decrease the use of potentially harmful drugs such as steroids. Or they lessen, even eliminate, the need for messy baths, rinses or dips.

Regardless of the cause of the dryness, fatty acids supplements are preferred. A dog's skin is affected by many disorders that tend to decrease the production of natural oils from the skin glands. This includes parasites (both internal and external), hormonal diseases, old age, allergies, etc. Fatty acid supplements can be given in a liquid, granular, tablet, or capsular form. They give the skin the tools it needs to correct the problem.

This doesn't happen overnight. Often it will take 3 to 5 weeks before you outwardly notice the difference. Remember the skin is actually very thick and your therapy must start at the inner most layers. Additionally it is a good idea to choose products supplemented with zinc. Zinc deficiencies can cause dry, crusty patches or worsen a pre-existing condition. It has now been shown that many dogs need higher than normal levels of both zinc and fatty acids in their diets for correct skin metabolism.

**ALLERGIES IN DOGS-** Allergies are very common in dogs due to a wide range of environmental factors.

Once an allergy has developed it makes little difference whether the animals are allergic to something they inhale (such as pollen), something that bites them (like a flea), or an object they came in physical contact with (such as carpet fibers).

The end result is always the same. "The allergy looks like a skin disease"!

**Skin Disorders** - When we see a scratching dog, the first thing we think of is fleas or some other external parasite. Actually the scratching can be due to any of countless allergies, a diet deficiency, or fungus infection; there are hundreds of causes of internal disarrangement.

Eczema is a general term for "inflamed skin". Eczema is a condition of the skin which covers many varieties of non specific dermatitis, and has hundreds of different causes, and includes all types of skin infections. It is classified into moist and dry.

In dry eczema the skin is dry and scaly in appearance. As in moist eczema, it is usually itchy. Something oily like lanolin or baby oil rubbed on the skin will relieve the itchiness, but the origin must be found.

One of the major causes of dry eczema is dietary imbalance - not receiving enough of the proper foods, or too much of one kind and not enough of another.

Some diets don't have enough fats or oils, for example those limited to some types of commercial dry dog food, which cause the hair of some dogs to become dry and dull-looking and then start to shed. The simple addition of fats or oils to the diet will often correct the dry-eczema condition.

Another cause of dry eczema is hormonal imbalance. Spayed females sometimes get this type of eczema with itching and shedding. The addition of female hormones clears the skin. Eczema is also seen in older dogs. Both male and female. Usually with the addition of hormones you can help those animals and relieve their itchy skin.

Dry eczema is also seen when there are certain organic imbalances, such as underactive thyroid glands, kidney disorders, or digestive disturbances. Certain toxins are released into the blood stream. Another cause is sometimes (believe it or not) "psychosomatic". ..... Dry eczema often occurs when a dog is envious of another dog or pet in the family. He'll take to scratching to gain attention and literally scratch himself into a "bad skin condition".

The most causes of hair loss without irritation are hormonal and need Veterinary treatment. If diet "is" the problem, multivitamins and extra oil "may" stop the problem.

Dietary problems can be treated at home, by adding about a spoonful of vegetable oil or bacon grease to their food once a day. If there's no response after a few weeks, the problem may be hormonal and you'll need to see a vet. :-)

**PRURITIS** is the name for itchiness that causes pets to scratch. Several chemical reactions occur in the skin that stimulates the nerves, causing the brain to feel the itch. You can treat a scratching pet by attempting to eliminate these reactions at the source AND controlling the body's response to them as well.

Some of the chemicals involved in itching are prostaglandins, arachidonic acid (a specialized fatty acid) and leukotrienes. By using treatments that inhibit the action of these factors at the skin level, such as antihistamines and fatty acid competitors, you can sometimes control the itching without using corticosteroids such as prednisone.

If you work to control other irritating factors such as fleas, dry skin and secondary bacterial infections you can also help to reduce the itching.

Each of these steps is "very" important because pets have an "itch threshold". This is the point where all of the sources of itching finally add up to enough irritation to cause the irresistible urge to scratch. Just like pain thresholds, these levels vary from pet to pet. Control of every factor that's possible is important to your dog's health and comfort.

Pruritis is a complication of many diseases. Only by careful examination, diagnostic tests and sometimes even trial and error can you come to understand what causes the itching in a particular pet and how you can best control it.

**Stopping the Itch:** Cold water will usually reduce itching and produce temporary relief. It doesn't really matter how the water is applied, but it must be at least cool. ....This effect doesn't last long, usually less than one-half hour. Adding Episoothe Oatmeal Shampoo, Episoothe Oatmeal Crème Rinse, Aveeno Colloidal Oatmeal, Relief Shampoo or Domeboro's solution helps to prolong the effect. If you use Aveeno, one to two tablespoons per gallon of water, applied as a rinse, works best. Follow the directions on the Domeboro packet and also apply as a rinse. Shampooing will sometimes help to control itching. Some shampoos such as Pyoben and Oxydex, act to reduce the bacteria level on the skin, one cause of itching. Seba Lyt and other sulfur/salicylic acid shampoos reduce scaling. Lytar, Clear Tar and other tar containing shampoos reduce itching and oiliness. An emollient or moisturizer used after shampooing will restore some moisture to the skin and this also reduces itching. Expar Crème Rinse can be used to kill fleas after itching and moisturize the skin.

Antihistamines are useful in the treatment of itching in some dogs. (< and cats.) Used alone - , about 15 to 25% of dogs will respond to antihistamines. Used in combination with fatty acid inhibitors, such as DermCaps, EFA-Z and Omega EFAcapsules - , about 25 to 40% of dogs will respond, ... reducing scratching behavior to acceptable levels. Antihistamines available over-the-counter are:

? Benadryl (diphenhydramine, 25mg capsules) and,

? Chlortrimeton (chlorpheniramine maleate, 4mg tablets). There are "prescription" antihistamines, notably

? Atarax (hydroxyzine) that work better in some cases.

? \*\*\* Benadryl - 1/2mg per lb. every 8 hrs Maximum dose 2mg per lb. It might be necessary to get a dosage for your particular dog from your vet for the others listed, because I don't have that info handy.

Dogs (and cats) have individual reactions to antihistamines. Since some dogs will respond better to one than another, it is best to try more than one antihistamine BEFORE giving up on them to control itching! Some pets will become drowsy when taking antihistamines. If this is unacceptable, they cannot be used, or might be best to use at bedtime.

Occasionally a pet will get "excited" when given antihistamines; these pets should NOT be given these products!

Fatty acid derivatives compete with aracadonic acid, the trigger for itching in the body. By replacing this compound with an inactive competitor, itching can be reduced. It is important that the fatty acid derivative chosen have gamma-linoleic acid, eicosapentanoic acid, or "both". These products work best at high dosage levels and when given with a low-fat canned food such as W/D, which is available through veterinarians. Although they can be "fairly expensive", their use is preferable to cortisones if

they are effective. It's necessary to use these products for at least 6 to 8 weeks to judge their full effect. EFA-Z and DermCaps are examples of these medications.

Antibiotics are used to control skin infections associated with scratching. The itching leads to scratching, which damages the skin. The damaged skin is easier for bacteria to grow in. The bacteria then contribute to the itching, leading to more skin damage. As this cycle progresses, deeper and deeper layers of the skin are affected, sometimes leading to systemic bacterial infections that can even be "fatal". !

Control of skin infections with antibiotics "takes time". The usual defense mechanisms of the body, fever, white blood cells and antibodies do not work as well on the skin surface. Antibiotics must do more of the work alone. For this reason, 3 weeks is the minimum recommended time that antibiotics should be given for skin infections. Often, antibiotics must be continued for up to 8 weeks to consistently control skin disease. Several antibiotics seem to work consistently in skin disease. When these antibiotics fail, it is necessary to culture the skin lesions to identify which antibiotic might be appropriate in an individual case. Occasionally it is necessary to continue antibiotic therapy indefinitely to control severe bacterial skin disease.

Some dogs appear to be unable to prevent penetration of staph (staphylococcus) bacteria into the skin. These dogs can be benefited by the use of a product to promote immune responses. Similar to vaccinations (but short acting), these products help the body learn to fight off staph bacteria. They are:

? Staph Lysate, and

? Immunoregulin. Although somewhat expensive and necessitating weekly injections, these products can cost less to use than frequent or continuous antibiotic therapy. (Vets have had better success with Staph Lysate.)

Hypo sensitization, or allergy "shots", is used in dogs. Their use in cats is very limited due to difficulties testing cats accurately for individual allergens. Similar to their use in people, these injections help many pets, but not all.

To be used properly, it is necessary to identify the allergy agents affecting your dog and then treat accordingly. This can be done by skin testing, where small quantities of allergens (allergy causing agents such as pollens), are injected into the skin and the response to this monitored. Often, it's necessary for a general veterinary practitioner to refer a pet to a veterinary dermatologist for this testing. Recently, blood tests have been developed to allow allergy testing without injections into the skin. These have become better understood recently and are correlating with the skin testing fairly well, although it is generally agreed that skin testing is still more accurate. Allergy injections require a consistent effort from the pet owner. They are the preferred treatment for inhalant allergies if that is the only condition affecting dog, when effective. Currently, about 70% of dogs are thought to benefit from this therapy.

Fleas cause most the allergic reactions in pets. Flea control is essential to your success in treating itchy dogs. Use an effective flea control system if you have any problem at all with fleas on your dog!

When itching cannot be adequately controlled by one of the above methods, they usually use a corticosteroid, such as prednisone. Cortisones are the most consistently effective anti-itch medications available. They "do" have several drawbacks, however. Cortisones increase the amount of water your pet drinks, making it urinate more, too. Sometimes this becomes a problem. These drugs increase appetite and weight control can be difficult while using them. If the proper dosage schedules are not followed there can be long-term side effects such as decrease in bone density or an increased chance of pancreatitis. Cortisones depress lymphocytes, a type of white blood cell, making it easier for bacterial infections to occur. Accidental over dosage with these medications or inappropriate long-term use can lead to medication induced Cushing's disease, a cause of hair loss, muscle weakness and other problems. For these reasons, most vets insist on monitoring a pet on cortisones through follow-up office visits. You may be required to allow examination of your pet prior to refilling prescriptions for these drugs.

In spite of these side effects, cortisones can be the best drugs to make an extremely itchy pet comfortable. If they are the only effective drugs for your pet they are worth the small risk to an individual pet of side effects. These drugs are reasonably safe for long term use if given according to directions. Allowing your pet a good quality of life, by controlling the itching, is worth the small risk of using prednisone and related compounds.

These are the methods they use to treat pruritis, the itchiness that causes a dog (or cat) to scratch. It may take several tries to work out the proper drug and dosage schedule for your pet, but is worth the effort.

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