

## CANINE HOT SPOTS INGREDIENTS

Canine hot spots (*superficial pyoderma*, or *acute moist dermatitis*), so named for their characteristic, inflamed redness and the affected dog's desire to relieve its discomfort with excessive licking, are extremely painful reactions to underlying medical conditions, such as bacterial or fungal infections.

Vaccination injection sites, insect bites and brush and branch scratches also trigger the itch and scratch response that leads to the development of hot spots, and the raw, red patches that develop on fur and skin from excessive itching and scratching cause enough fur shedding to expose the skin to further infection.

Hot spots tend to appear behind the ears and in the ear flaps and on the legs, flanks, feet and rear end; the easy-to-reach hot spots easily and quickly inflame from constant biting and licking. Additionally, ingestion of any pus creates its own issues by providing an avenue for the infection to spread to the intestinal tract.

A proper diet and balanced nutrition builds resistance and supports vital organs and the immune system. A healthy blood stream transports essential nutrients throughout the body and flushes out toxins and invading substances. Amino acids, anti-oxidants, blue green algae, calcium and L-Methionine, in particular, detoxify the blood stream, strengthen the skin and the immune system from insect and parasitic attack and support the cell repair that is vital to healthy skin and to rebuilding hypersensitive nerve coverings (or, sheaths).

Here's how the ingredients contained in NuVet Plus strengthen an animal's skin and immune system against the bacterial and fungal infections that cause hot spots, as well as vitamins, minerals and other nutrients that keep the body in balance and better equipped to resist injury and attack from insects and parasites:

- Alfalfa – Where does one begin to describe the many benefits of alfalfa, the “King of Plants”? Alfalfa is a rich source of so many of the vitamins, minerals, amino acids (especially tryptophane), digestive enzymes and protein that are necessary to a balanced diet, including Vitamins A, B-6, D, E, and K, beta-carotene, fiber and chlorophyll, calcium, magnesium, phosphorous, iron, potassium and several trace minerals. The alfalfa included in NuVet Plus builds a strong and healthy body that easily resists attack by the invading organisms that irritate the skin and encourage the development of hot spots.
- Amino acids – Amino acids function as immune system stimulants that enhance the antioxidant activity of certain enzymes and strengthen and protect an animal's skin against insect bites, injury and parasitic infections. L-Methionine, in particular, improves and strengthens the skin and aids in wound healing to prevent the development of the skin lesions that trigger the biting and licking behavior that causes hot spots.
- Beta carotene (Vitamin A) – Beta carotene, a precursor to Vitamin A and a powerful antioxidant, synergizes with Vitamin C and supports mucous membrane health to protect the body against

the insect, bacterial and fungal invasions – and related itching response – that can lead to the development of hot spots.

- Blue green algae – This substance is an excellent source of chlorophyll -- which acts as a detoxifier and blood cleanser -- and sulfolipids, which resist viral infections. This ingredient contains numerous trace minerals and more protein than any other whole food; it strengthens the immune system, aids in wound healing and boosts the production of red blood cells, and provides support to the brain and nervous systems. These properties make supplementation with blue green algae an ideal defense against insect and parasitic invasion and an effective agent for strengthening hypersensitive nerve sheaths against the itching response. No insect bites, bacterial or fungal infection -- or urge to itch -- eliminates the possibility of hot spots!
- Brewer's yeast – Brewer's yeast, a rich source of B complex vitamins, contains the trace mineral chromium and a high quality protein that aids in tissue formation and the assimilation of fats, proteins and carbohydrates. Vitamins B-1, B-9 and B-12, in particular, support the nervous system and strengthen nerve sheaths against the hypersensitive itching responses that can cause hot spots.
- Cat's claw (una de gato) – Cat's claw is an ancient herb from the Peruvian rain forest that contains bio-active compounds, such as sterols, polyphenols, proanthocyanidins, oxindole alkaloids, quinovic acid, glycosides and triterpenes, acts as an antioxidant and anti-inflammatory agent and boosts the immune system. Its antioxidant properties strengthen the immune system against insect and parasitic infections; its anti-inflammatory properties keep skin tissue inflammation to a minimum in infected animals and, therefore, prevent hot spots from developing.
- Desiccated liver – Desiccated liver contains the B-complex vitamins that are so essential to nervous system health and the preservation of nerve tissue and is also a rich source of Vitamins A, C and D and the minerals calcium, copper, phosphorous and iron. Calcium is essential to good nervous system health. Healthy nerve tissue resists the itching response that leads to the development of hot spots.
- Evening primrose oil – This valuable ingredient contains high amounts of gamma-linolenic acid, which is one of the Omega-6 essential fatty acids that the body requires for the stimulation and maintenance of new skin and nerve cell growth. Studies have also shown that evening primrose oil relieves pain and inflammation; therefore, this substance is essential to the prevention of hot spots that might result from skin inflammation and excessive itching.
- Iron – Iron supports the immune system from attack by the infections and infestations that can lead to skin inflammation, itching and hot spots.

- Oyster shell – Oyster shell is an excellent source of calcium, which, as noted above, is essential to proper nervous system function.
- Pine bark extract – This substance contains Proanthocyanidids, which inhibit the enzymes that cause skin inflammation.
- Potassium citrate – Potassium is necessary to proper nervous system function, particularly the transmission of nerve impulses (such as the urge to itch). NuVet utilizes potassium citrate, a highly bio-available source of potassium, to support nervous system health.
- Shark cartilage – Shark cartilage is also a rich source of calcium and phosphorus that is believed to stimulate the cellular and humoral components of the immune system. The inclusion of shark cartilage in an animal’s daily diet aids in rapid tissue repair in the event of illness or injury, including those to the skin and central nervous system.
- Vitamin C – Vitamin C is an important antioxidant that fights bacterial infections, promotes tissue repair and immune system health, maintains the structure of connective tissues and skin and strengthens the body against the effects of stress. Stress can wear an animal’s body down to the point where it cannot properly fight infections, infestations and systemic diseases or recover quickly from injury or trauma. The addition of Vitamin C to the diet keeps tissues, skin and the immune system strong enough to resist the effects of stress. Vitamin C also promotes the tissue cell growth necessary to an animal’s full and rapid recovery from injury and disease, including those to the skin and central nervous system.
- Vitamin E – Vitamin E, another of the “stress vitamins” that functions in a fashion similar to Vitamin C, is crucial to central nervous system health. Vitamin E deficiencies can lead to neurological abnormalities; therefore, it is easy to see why Vitamin E is such a vital component to NuVet’s supplementation formula, for proper central nervous system function as well as for overall health.
- Whey protein—A by-product of the cheese-making process, this substance contains antibodies, calcium and milk protein that strengthen the body’s response to invasion by foreign substances, such as those that cause the infections that lead to the development of hot spots. And, as noted above, calcium is vitally important to central nervous system health.
- Zinc – This mineral acts as an antioxidant and aids in wound healing and cell repair and growth. Proper cell repair is essential to recovery from any infestation, infection, systemic disease, injury or trauma, including those involving the skin and central nervous system.