# **NuVet Plus Ingredients**

### **ALFALFA**

Alfalfa is known as the "King of Plants", and its roots have been used for centuries in many cultures. The herb belongs to the legume family, closely related to beans and peas. Alfalfa is an excellent source of vitamins D, E and K, beta-carotene, minerals, fiber, chlorophyll, calcium, proteins and fats. It is especially rich in the amino acid trypophane. It is considered to be a very nutritious herb, and is used to increase appetite, alleviate certain allergic reactions and help poor digestion. It may also reduce the inflammation due to arthritis and rheumatism. (Canine formula)

### **ALPHA AMYLASE**

A soluble fiber digestant. We believe **NuVet Plus**® is the finest pet supplement available, however it must be able to be digested as efficiently as possible. Alpha Amylase creates the means by which the ingredients will be absorbed into the body as rapidly as possible without diminishing **NuVet Plus**® powerful antioxidant capabilities.

### **AMINO ACIDS**

Necessary for the synthesis of body proteins and many other tissue constituents. Amino acids aid in building new muscle, bone and tendon cells; play a vital role in metabolism, stamina, and brain function; and enable vitamins and minerals to be properly absorbed and assimilated. There are approximately twenty-eight amino acids that combine in various ways to create hundreds of different types of proteins. Some amino acids enhance the immune system by stimulating the antioxidant activity of certain enzymes and can help prevent skin and coat problems. Others prevent premature aging, tumors, nerve disease and connective tissue disorders.

Pet foods high in protein may or may not contain all the necessary amino acids to maintain proper health of a pet. This deficiency could cause a host of problems ranging from indigestion, stunted growth, nervous disorders, or worse. **NuVet Plus**®, with its specifically blended natural ingredients, contains all the critical amino acids that must be introduced through the diet for proper health.

#### **BETA-CAROTENE**

The precursor to Vitamin A becomes a powerful free radical scavenger in the body. Vitamin A is essential in skeletal growth, testicular and ovarian function, embryonic development, and differentiation of tissues. It is crucial for proper eye function and

possible cataract reduction. Vitamin A is necessary for healthy skin and mucous membranes, the body's first line of defense against invading microorganisms and toxins, and promotes the immune response. Beta-Carotene and Vitamin A destroy carcinogens (cancer-causing agents), guards against heart disease and stroke, and lowers cholesterol.

### **BLUE GREEN ALGAE**

Blue Green Algae is nature's most basic food. Existing at the beginning of the food chain, it provides nutrition in its simplest form. Blue Green Algae has a greater amount of protein than any other whole food. It provides the essential nutrients for the health of the physical body, and the smooth operation of the brain and nervous system.

Blue Green Algae is a very rich chlorophyll source and has been shown to enhance the health of the entire body, strengthen the immune system, promote intestinal regularity and the healing of wounds, boosts hemoglobin production and helps purify the blood. The trace minerals found in blue green algae are Boron, Calcium, Chlorine, Chromium, Cobalt, Copper, Fluorine, Geranium, Iodine, Iron, Magnesium, Maganese, Molybdenum, Nickel, Phosphorus, Potassium, Silicon, Sodium, Tin, Titanium, Vanadium, and Zinc.

### **BREWER'S YEAST**

A balanced, natural source of B-Complex vitamins (also see Chicken Liver). Studies show another beneficial effect of Brewer's Yeast supplementation is significant reduction of body fleas on companion pets.

# **CAT'S CLAW (UNA DE GATO)**

Cat's Claw, also known as Una de Gato, is an ancient herb, found in the rain forest of Peru. This singular and wild woody vine is known for its amazing healing properties and has been used by native people for centuries. It cleanses the intestinal track, enhances the action of white blood cells, and acts as an anti-inflammatory and antioxidant. It is good for intestinal problems and viral infections. Research in different countries including Germany, Austria, England, and Hungary has shown that Cat's Claw can stimulate the immune system and may help in the treatment of diseases including cancer, AIDS, viral or respiratory infections, allergies, arthritis and rheumatism.

### **CHICKEN LIVER**

We use 100% chicken liver, which is paddle-dried in order to retain the omega fatty acids and vitamins A, C, and the B-complex vitamin group. Contains minerals including calcium, copper, phosphorous, and iron. Chicken liver is good for anemia and aids in building healthy red blood cells. It is known to increase energy, fight liver disorders, and help relieve stress in the body.

### **COPPER**

Aids in the formation of red blood cells, and works with Vitamin C to form elastin, an important protein that makes up bone, skin and connective tissue. It aids in the healing process and energy production. This mineral is needed for healthy nerves and joints. A sign of copper deficiency is osteoporosis.

### **EVENING PRIMROSE OIL**

High in gamma linolenic acid (GLA), an essential polyunsaturated fatty acid that

promotes cardiovascular health. It is known to prevent hardening of the arteries, heart disease and high blood pressure, and aids in lowering cholesterol. It is helpful in the management of arthritis, rheumatism, certain skin disorders, and can relieve pain and inflammation. Studies have shown it can increase the release of sex hormones and thereby improve reproductive health.

#### **IRON**

Necessary for hemoglobin and myoglobin (a type of hemoglobin found in muscle tissue). It is necessary for the oxygenation of red blood cells. Iron helps in protein metabolism and promotes growth. Iron is also necessary for energy production and a healthy immune system. Iron deficiency can cause weakness, anemia, digestive disturbances, fragile bones and hair loss.

### **L METHIONINE**

An essential amino acid that is not synthesized by the body and must be obtained from food or supplements. It is a powerful antioxidant and a good source of sulfur, which neutralizes free radicals and helps prevent skin, coat and nail problems. It can help to detoxify harmful agents such as lead and other heavy metals found in airborne pollutants. L Methionine is essential for the absorption, transportation and bioavailability of selenium and zinc in the body. It also acts as a liptropic agent to prevent excess fat buildup in the liver, and can help to reduce fatigue. It is useful in some allergy cases because it reduces histamine release.

Recent studies show L Methionine supplementation may help delay the development of age-related cataracts. Deficiencies in L Methionine can slow growth and cause low levels of essential proteins in the blood. Lack of it can result in edema, liver damage, loss of muscle and fat, skin lesions and weakness.

### **MAGNESIUM**

Acts as a catalyst in the utilization of carbohydrates, fats, protein, calcium, phosphorus, and potassium. It is important for energy and healthy maintenance of bones, teeth, arteries, heart and nerves. Research has shown that magnesium can help prevent cardiovascular disease, osteoporosis, and certain forms of cancer.

### **MANGANESE**

An enzyme activator that plays an important part in tissue respiration and carbohydrate and fat metabolism. Necessary for normal skeletal development and to maintain sexhormone production. Manganese deficiency can lead to paralysis, convulsions, dizziness, deafness and blindness.

#### **OYSTER SHELL**

Extremely rich in calcium, the major constituent in the structural framework of bones. Practically every cell in the body, notably those in the heart, nerves, and muscles rely on calcium to function properly. Some experts recommend higher levels of calcium in order to prevent bone loss. The heart requires calcium to maintain a normal beat. Muscles need it for contraction and relaxation, and calcium is essential for blood clotting and proper nervous system function.

Over time, if not enough calcium is consumed; the body takes calcium from the bones

to keep the heart and muscles working properly. This process will gradually weaken the bones until they break easily. (All oyster shell used in our product is farm-raised and tested for lead content.)

### **PAPAIN**

Fundamentally aids in the digestion of protein. Papain's activity helps to cleanse the tissues and intestinal walls. The unique ability of Papain to break down protein and convert a portion of it into Arginine is extremely important because Arginine, in its natural form, has been found to influence the production of HGH. HGH, produced in the pituitary gland, is directly responsible for DNA and RNA replication as well as synthesis in liver, muscle, cartilage, and adipose tissues. HGH helps to increase muscle tone and decrease body fat. Arginine has also been found to inhibit the growth of breast cancer cells in test tube studies.

#### **PHOSPHORUS**

Works with calcium to build bones and teeth. Aids the body in the utilization of vitamins, and conversion of food to energy. Deficiencies of phosphorus can lead to loss of weight and appetite, irregular breathing, pyorrhea, fatigue and nervous disorders.

### **PINE BARK**

The proanthocyanidids in Pine Bark have been shown in clinical studies to be 20 times more effective than Vitamin C and 50 times more effective than Vitamin E as an antioxidant. Pine Bark helps relieve pain and symptoms of osteoarthritis, arthritis, rheumatism, and rheumatic fever. It has been shown to reduce histamine production, thereby helping the lining of arteries resist mutagen attacks which cause cardiovascular disease.

Pine Bark's remarkable ability to "seek and destroy" free radicals is a tremendous benefit to the health of our animals. By reducing oxidative damage to cells and vital tissues, what we recognize as aging (stiff joints, wrinkled skin, degenerative disease problems like arthritis, circulatory disorders, diabetes, heart disease, etc.) is held to a subdued rate. In addition, unlike virtually all other dietary antioxidants, proanthocyanidids readily cross the blood-brain barrier to protect vital brain and nerve tissue from oxidation.

# **POTASSIUM (CITRATE)**

Important for a healthy nervous system and regular heart rhythm. Helps prevent strokes, aids in proper muscle contraction, and works with sodium to control the body's water balance. Potassium is important for chemical reactions within the cells, aids in maintaining stable blood pressure and proper transmission of electro-chemical impulses. It also regulates the transfer of nutrients through cell membranes. Signs of potassium deficiency include abnormally dry skin, weakness, paralysis, low blood pressure, and irregular heartbeat which can lead to cardiac arrest and death.

### **SELENIUM**

An essential trace mineral whose principal function is to inhibit the oxidation of lipids (fats). It is a vital antioxidant, especially when combined with Vitamin E. It protects the immune system by preventing the formation of free radicals. It has also been found to

function as a preventative against the formation of certain types of tumors. Selenium and Vitamin E act synergistically to aid in the production of antibodies and help maintain a healthy heart and liver. Selenium deficiency has been linked to cancer and heart disease. It has also been associated with exhaustion, growth impairment, high cholesterol levels, infections, liver impairment, pancreatic insufficiency, and sterility.

### SHARK CARTILAGE

Contains collagen and glycosaminoglycan. This combination makes shark cartilage a powerful anti-inflammatory wound-healing agent that is non-toxic and has no known side-effects. It is also an effective substance against bacteria, virus and fungal infections, which stimulates the cellular and hormonal components of our immune system.

There have been numerous studies demonstrating the ability of shark cartilage to shrink some cancerous tumors, including those unaffected by standard treatments. In order to grow, a tumor must establish its own blood vessel network for nourishment. Like all other living things, if the tumor is denied nourishment, it will die. Studies performed at the Massachusetts Institute for Technology have shown that shark cartilage contains a protein that impedes the formation of blood vessels to tumors.

### **TAURINE**

One of the most abundant amino acids in the body. It is found in the central nervous system, skeletal muscle, and highly concentrated in the brain and heart.

Taurine therapy is used in the treatment of ischemic heart disease. Low Taurine and magnesium levels have been found after heart attacks. Supplements decrease the tendency to develop potentially lethal abnormal arrhythmia after heart attacks.

Another role played by Taurine is maintaining the correct composition of bile and solubility of cholesterol. It helps stabilize cell membranes and seems to have some antioxidant and detoxifying activity. It also helps the movement of potassium, sodium, calcium and magnesium in and out of cells, which helps generate nerve impulses. Taurine is necessary for chemical reactions that produce normal vision. Deficiencies are associated with retinal degeneration and age-related cataracts. (Feline formula only; canines produce their own Taurine.)

### **VITAMIN A**

See Beta-Carotene.

### **VITAMIN B COMPLEX**

Necessary for carbohydrate, fat, and protein metabolism. Helps the functioning of the nervous system; maintains muscle tone in the gastrointestinal tract; maintains the health of skin, coat, eyes, mouth and liver. Contains folic acid.

# **VITAMIN B1 (THIAMINE)**

Essential for normal functioning of the heart, nerves, muscles, skin and digestive system. Necessary for carbohydrate metabolism.

# **VITAMIN B2 (RIBOFLAVIN)**

Necessary for carbohydrate-fat-protein metabolism, and antibody and red blood cell

formation. Good for healthy eyes, skin, and coat.

# **VITAMIN B3 (NIACIN)**

Promotes growth, proper functioning of the nervous system, maintenance of healthy skin, tongue, digestive system, and carbohydrate-fat-protein metabolism.

# **VITAMIN B5 (PANTOTHENIC ACID)**

Assists in the release of energy from carbohydrates, fats, and proteins. Aids in the utilization of some vitamins, stimulates growth, and aids in the formation of antibodies.

# **VITAMIN B6 (PYRIDOXINE)**

Necessary for carbohydrate-fat-protein metabolism, antibody and red blood cell formation, and aids in digestion. B6 also helps maintain balance of sodium and phosphorus.

### **VITAMIN B12**

Essential for normal formation of red blood cells, carbohydrate-fat-protein metabolism, and good appetite. B12 maintains fertility, promotes normal growth and development, and prevents nerve damage by maintaining the fatty sheaths that protect nerve endings.

# VITAMIN C (ESTER C™)

A powerful antioxidant that also protects other antioxidants such as Vitamin E. The cells of the brain and spinal cord, which frequently incur free radical damage, can be protected by significant amounts of Vitamin C. In addition to its role as an antioxidant, Vitamin C also increases the synthesis of Interferon, a natural anti-viral substance produced by the body, and stimulates the activity of certain key immune cells. Vitamin C is a key factor in many immune functions, including white blood cell function and Interferon levels. Due to its antioxidant properties, it combats the effects of free radicals while lowering the risk of cataracts and promoting cell growth and tissue repair.

### **VITAMIN E**

An essential fat-soluble vitamin that includes eight naturally occurring compounds, and each of these compounds exhibit different biological activities. The most widely accepted biological function of Vitamin E is related to its antioxidant activities. Vitamin E is the most effective chain breaking lipid-soluble antioxidant in the biological membrane. It contributes to membrane activity, protecting critical cellular structures against damage from oxygen free radicals.

Deficiencies in Vitamin E may lead to reproductive failure, nutritional "muscular dystrophy," hemolytic anemia, and neurological and immunological abnormalities.

### **WHEY PROTEIN**

The importance of protein in any carnivore's diet cannot be understated, for it is critical in building and maintaining muscle mass and other necessary metabolic functions. Protein deficiencies can lead to retarded skeletal and muscle growth and a weakened immune system, which causes susceptibility to infections and degenerative diseases. (Feline formula)

### **ZINC**

Zinc is a component of almost one hundred enzymes involved in metabolic processes, most of which work with the red blood cells to move carbon dioxide from the tissue to the lungs. Zinc, functioning as an important antioxidant, promotes normal growth and development, aids in wound-healing, enhances cell division, repair and growth, and maintains normal levels of Vitamin A in the blood. It also helps to synthesize DNA and RNA. Zinc deficiencies have been linked to prostate hypertrophy, cancer, slow recovery from head injuries, diabetes, arthritis, and reduced immune system responses.