FORMULA SUMMARY:

*NutriCalm for Dogs* (which is delivered in a capsule format) is a combination of amino acids and herbs designed to natural calm and relax without sedation. *NutriCalm for Dogs* features L-Theanine, a non-protein-forming amino acid, naturally occurring in green tea, which is known for its calming properties. *NutriCalm for Dogs* also contains pharmaceutical-grade, l-tryptophan, in addition to several botanicals that calm and reduce stress.

THERAPEUTIC STRATEGY:

Promote increased neurotransmitters involved in reducing anxiety and calming by the use of nutraceuticals, botanicals and minerals, in an easy-to-administer encapsulated formulation.

USES:

*As a dietary supplement to aid in the management of anxious pets*

- Travel
- Kennel stays
- Vet visits
- Grooming
- Multiple pet households with behavior “issues”
- Pets with mild anxiety disorders
- Separation anxiety
- Neurogenic diarrhea
- Neurogenic dermatitis

INGREDIENTS: *(per capsule)*

- L-Tryptophan (pharmaceutical grade) 150 mg
- L-Theanine (Suntheanine brand) 25 mg
- Ashwagandha extract (*Withania somnifera*) 50 mg
- Catnip extract (*Nepeta cataria*) 50 mg
- Valerian root extract (*Valeriana officinalis*) 50 mg
- Calcium (as aspartate) 30 mg
- Magnesium (as aspartate) 30 mg

INGREDIENT RATIONALE:

*L-Tryptophan* is the most complex of the amino acids, and is a precursor to the production of the B vitamin, niacin and the neurotransmitter serotonin. (Mahan 1996) Tryptophan, and its metabolite, 5-hydroxytryptophan have been measured to increase serotonin levels in the brain. (Blundell 1991)

Animals placed on a tryptophan-free diet, which results in reduced serotonin levels, have greater aggressive tendencies, especially during competitive
social interactions such as feeding. (Mehlman 1995) In a human study, investigators measured 5-HIAA (a serotonin metabolite) levels in 26 patients who were “self-mutilators”. They all exhibited serum serotonin deficiency, in addition to demonstrating severe character pathologies: Greater aggressiveness, anti-social, chronic anger, greater impulsivity and physical symptoms of anxiety. (Simeon 1992)

Poldinger describes a serotonin deficiency syndrome, which includes depression, anxiety, aggression, sleep disturbances, obsessive-compulsive traits, and other behavioral abnormalities. (Poldinger 1991)

**L-Theanine** is an amino acid found in ordinary tea leaves from *Camellia sinensis*. It is also found in other species of Camellia and in the edible boletus mushroom *Xerocomus badius*. L-theanine can promote mental and physical relaxation; it decreases stress and anxiety. At the same time as it relaxes, it does not sedate. Theanine can cross the blood-brain barrier which is why it has psychoactive properties. (Yokogoshi 1998) Theanine is a modification of the amino acid glutamine, with an ethyl group added onto its termination.

Theanine has been found to increase levels of GABA, serotonin and dopamine, and to have an affinity for NMDA receptors. (Nathan 2006) Theanine promotes alpha wave production in the brain. (Gomez-Ramirez 2007)

Studies indicate that theanine increases the level of GABA (gamma-aminobutyric acid), an important inhibitory neurotransmitter in the brain. As such, GABA balances excessive excitatory neuronal activity, thus reducing restlessness and insomnia. GABA deficiency is associated with anxiety and panic attacks in humans. Theanine also appears to increase levels of dopamine which accounts for its influence on reducing hypertension as well as its influence on concentration and confidence.

Toxicity studies in rats have shown that extremely high doses of theanine over extended periods of time produced no adverse effects. (Borzelleca 2006)

**Valerian root extract** (*Valeriana officinalis*) is a safe herb with a long history of use as a remedy to promote sleep and to reduce restlessness. It has no known interactions with other drugs, nor have adverse side-effects been reported following its usage. There are no known contraindications for its use. (Blumenthal 1998) In a case report published in Veterinary and Human Toxicology, 1995, noted that an overdosage of valerian given at 20 times the recommended allowance produced no signs of toxicity. (Willey 1995)

Studies have demonstrated that the psychoactive phytochemicals in valerian root, valeric acid and valepotriates are capable of binding to the same receptors in the brain as diazepam and other benzodiazepine drugs. (Mennini 1993) The side-effects normally associated with the use of these drugs, however, have not been reported with the use of valerian root. (Leathwood 1985)
Valerian root extracts can inhibit GABA, as well as reduce its rate of re-uptake at the synaptic cleft, which may explain its usefulness in treating anxiety and depression. Valerian extracts contain GABA, but it is currently unknown whether GABA can cross the blood-brain barrier. (Cavadas 1995) (Duke, 1998) (Santos 1994) (Morazzoni 1995) Rudolph Weiss, MD, in his classic text: *Herbal Medicine* (1960), reports that valerian has an effect on cats similar to that of catnip. (Guzman 1998)

**Ashwaganda extract** (*Withania somnifera*) is an adaptogenic herb that has a long history of use within the Ayurvedic tradition. Other names for Ashwaganda include: “Indian ginseng” and “Winter Cherry.” It contains the steroidal lactones, withanolone and withanine; as well as withanolides and glycowithanolides. Ashwaganda has a beneficial effect on both the immune system and the central nervous system, similar to that of ginseng, which is also an adaptogen. Adaptogens help to promote homeostasis during periods of stress, as a result of their normalizing effect on the adrenal glands. Medically, Ashwaganda is used as a general health tonic and restorative agent for individuals with exhaustion and debility, or for those who are undergoing stress. (Silver 1998, 2007)

**Catnip extract** (*Nepeta cataria*) has the properties of being an antidiarrheal, antispasmodic, diaphoretic and febrifugal agent. Its effects upon the central nervous system have also been published. It is known to have both sedative and calmative properties, and possesses a very low toxicity. (Tyler 1994) (Duke 1998)

**Magnesium aspartate** is a kreb’s cycle chelate, and therefore, a more biologically available form of elemental magnesium. The brain, heart, liver and kidney are the tissues with the highest concentration of magnesium. Signs and symptoms of a magnesium deficiency include fatigue, mental confusion, irritability, weakness, problems with nerve conduction and muscle contraction, muscle cramps, inappetance, insomnia and predisposition to stress. (Murray 1996)

**Calcium aspartate** is a kreb’s cycle chelate, being a more biologically available form of elemental calcium. Calcium is the most abundant mineral in the body. It affects transport functions of cell membranes, with the added effect of stabilizing cell membranes. It also influences the transmission of ions across the membranes of cellular organelles, the release of neurotransmitters at synaptic junctions, the function of protein hormones and the release or activation of intracellular and extracellular enzymes. Calcium is required in nerve transmission and regulation of the heart beat. A balance among calcium, magnesium, sodium and potassium ions maintains muscle tone and controls nerve irritability. (Czajka-Narins 1996)

**CLINICAL APPLICATIONS:**

*NutriCalm for Dogs* was designed to help enhance serotonin-dependent behavior in dogs. Animals with a range of behavior issues, such as thunderphobia,
hyperactivity, nervousness, fear of travel, fear of vet’s office, psychogenic dermatitis, hair pulling, excessive licking and psychogenic diarrhea will benefit from the use of this formula. This formula has found itself to be very useful as an adjunct to behavior modification therapy.

*NutriCalm for Dogs* can also be very helpful with short-term anxiety situations such as travel by car or plane, trips to the vets, the groomers, and other social situations where the animal’s anxiety can pose a problem.

**RECOMMENDED DOSAGES:**

**Label:**

“1 capsule for each 25-50 pounds of body weight twice daily or as needed.”

*(Dosages may be divided into twice daily administrations. Higher dosages (2-3 times the recommended maintenance dose) produce more immediate sedative effects, lower dosages provide long term anxiety maintenance therapy)*

**A NOTE on DOSING:**

Nutricalm for Dogs has biphasic effects, dependent upon its dosing schedule.

1. It can be used only on an “as-needed” basis for that occasional calming effect.
   a. Vet and groomer visits, traveling, company visiting your home
2. It can be given twice or thrice daily (based on individual effect) for longer term behavior issues such as multi-pet conflict within a household, separation anxiety, timidity, thunderphobia.

**CITATIONS:**


