

VetSpec[®] for dogs

Keeping Your Dog Calm and Focused

By Philip Tyler BSc (Hons)

Many dogs get excitable, frightened and lose focus for a whole variety of reasons, including, fear of loud noises like fireworks, travelling in a car, being left on their own or when they are being trained.

A good calming supplement can make quite a dramatic improvement to the behaviour of anxious dogs but what ingredients are having this effect and how do they work?

Natural ingredients that might be found in effective calmers include tryptophan and certain B vitamins, most often B1 (thiamine), B3 (niacin) and B6 (pyridoxine). Certain forms of clay can also be found as an ingredient.

Tryptophan earns its place in calming supplements because it is a precursor of serotonin (5HT). This means it is a building-block from which serotonin can be manufactured in the brain.

Serotonin, which is a neurotransmitter, acts in the brain to reduce anxiety and promotes a mood of happiness, concentration, calm and relaxation. So why not just feed serotonin? Because it cannot pass through the blood-brain barrier.

There is an intermediary compound produced in the manufacture of serotonin from tryptophan called 5HTP, which does pass through the blood-brain barrier so would appear at first glance to have potential as an ingredient in a calming supplement. Unfortunately it can irritate intestinal linings when fed at effective levels, causing unpleasant side effects, whereas feeding tryptophan at effective levels does not.



Tryptophan has been proven to improve mood by boosting serotonin levels in the brain but care must be taken to administer it correctly for two reasons.

Firstly tryptophan is an amino acid. Amino acids are the building blocks of proteins. It might be assumed therefore that to calm a dog all one would need to do is feed a protein source high in tryptophan. However this does not work because tryptophan competes with five other amino acids to cross the blood-brain barrier.

This explains why those scientists who thought that the reason people felt sleepy after Christmas dinner was because turkey meat is high in tryptophan were wrong! So to be effective tryptophan should be given as an additional supplement containing none of the competing amino acids.

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Secondly the level of tryptophan given must be correct, too little will not have a significant effect and too much will actually promote tryptophan breakdown in the liver.

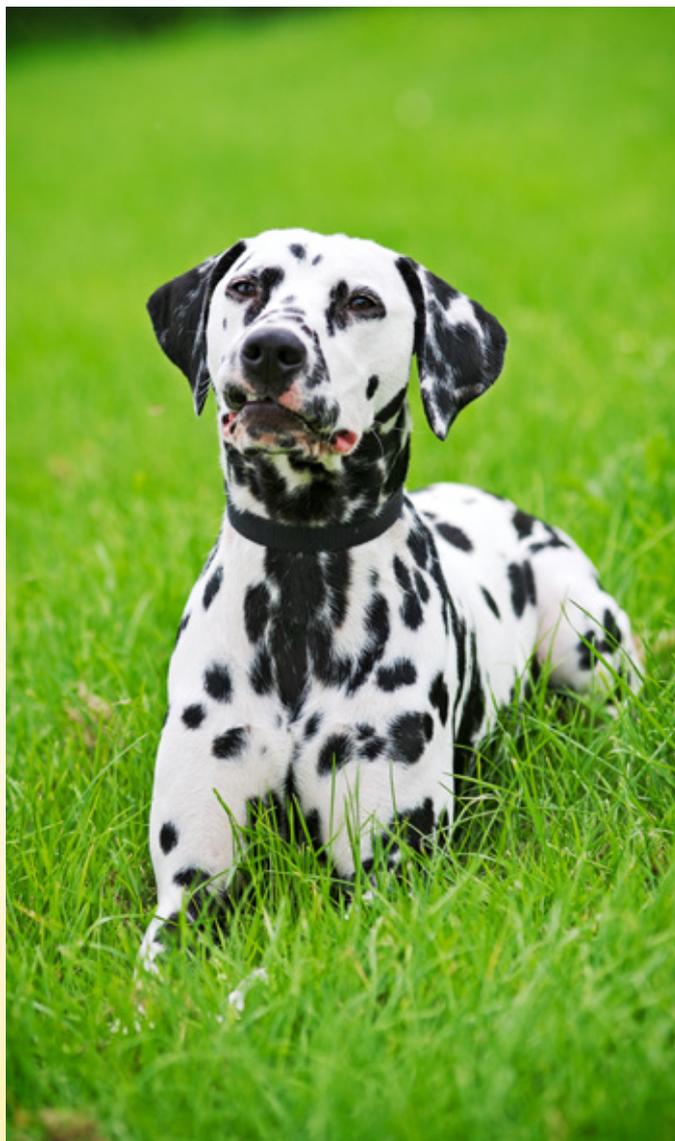
Vitamin B6, often referred to as pyridoxine, helps to catalyse (it is a co-enzyme) the conversion of 5HTP to serotonin and therefore has a potential role to play in calming dogs.

Niacin, occasionally referred to as vitamin B3, justifies its inclusion in a calming supplement for three reasons. The first might seem a 'backwards' reason but it is correct thinking nonetheless. It is that tryptophan is used to make niacin, but it is a very inefficient process using a good deal of tryptophan to make not very much niacin. Thus by adding niacin directly in a calming supplement, the tryptophan present is 'spared' and therefore more is free to form serotonin and help to calm the dog.

Secondly niacin is a co-enzyme for the reaction that converts tryptophan to 5HTP and therefore it promotes the production of serotonin in the brain.

Thirdly niacin inhibits the enzyme that breaks down tryptophan in the liver and therefore it again, albeit indirectly, promotes the production of serotonin in the brain.

Vitamin B1, commonly referred to as thiamine, is a candidate for inclusion in calming supplements mainly because it plays a direct role in transmission of nervous impulses. There is considerable anecdotal evidence for its effectiveness in reducing anxiety in dogs. It has been demonstrated to improve concentration and reduce excitability in humans and the same appears to apply in dogs.



Other B vitamins may have a case for inclusion in calming supplements; in particular a case could be made for folic acid, vitamin B12 and biotin. However all the B group vitamins have a myriad of functions and it is important to put any specific role into an overall context.

The main role attributed to magnesium when justifying its inclusion in a calming supplement is that it has an important function in the transmission of nervous impulses. The requirement for magnesium may increase under stress and therefore it is prudent to include it as an ingredient in calming products.

MOS, which is an acronym for mannan oligosaccharides, are the dried cell walls of yeast, and because of their large, 'spikey' surface area they bond to pathogenic bacteria e.g. Salmonella species, in the dog's intestines, taking them out in the faeces. By leaving the beneficial bacteria free to multiply, MOS indirectly helps to maintain a correct gut environment and therefore justifies inclusion in calming products.

FOS, which is an acronym for fructo-oligosaccharides, works as a pre-biotic in the dog's gut. In recent years the use of FOS has been shown to support gastrointestinal health in dogs in many ways. One of the main reasons is that FOS are selectively utilised by certain beneficial bacterial species e.g. Bifidobacteria, in the gastrointestinal tract.

All the ingredients described in this article are natural. Most of them interact with each other and can affect behaviour in a complex and sophisticated way that includes feedback mechanisms, so considerable skill and experience is necessary to formulate a successful calming supplement.

VetSpec Calm & Focused Supplement

VetSpec Calm & Focused Supplement is ideal for all dogs to help reduce anxiety, help improve focus and obedience, reduce fear of loud noises and help with separation anxiety. It is specially formulated by experienced nutritionists with scientifically proven ingredients including Tryptophan, a natural precursor of serotonin, FOS and MOS to help maintain a healthy gut environment. Generous levels of B vitamins and Magnesium are also included.

Ideal for:

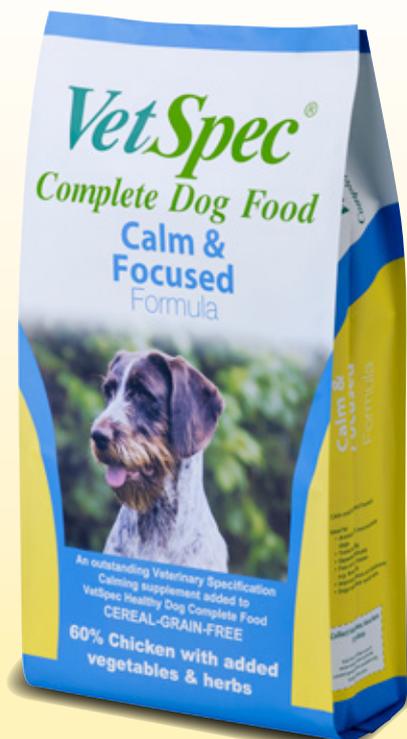
- Anxious and over-excitable dogs
- Travel anxiety
- Separation anxiety
- Fear of loud noises e.g. fireworks
- Improving focus and obedience
- Dogs with poor social skills



VetSpec Complete Dog Food Calm & Focused Formula

VetSpec Super Premium Complete Dog Food - Calm and Focused Formula is our very effective Calm & Focused Supplement combined with our Super Premium Healthy Dog Adult Formula dog food to make one unique Veterinary Specification, CEREAL-GRAIN-FREE Super Premium product.

VetSpec Calm and Focused formula is ideal for all dogs that get anxious and over-excitable, suffer from separation anxiety or fear loud noises like fireworks. It is also very helpful when training young dogs to improve focus and obedience. Its formulation includes Tryptophan, Pre-biotics, Magnesium and also generous levels of B vitamins.





VetSpec **Puppy & Junior** Formula

VetSpec Puppy and Junior Formula contains highly specific supplements to ensure optimum growth and development of your young dog through to twelve months when it can be successfully transferred to VetSpec Healthy Dog Adult Formula (See below). VetSpec Puppy and Junior Formula is a Veterinary Specification, CEREAL-GRAIN-FREE, Super Premium dry dog food including 60% Chicken with added vegetables and herbs. It is a completely balanced dog food suitable for all puppies and junior dogs from 4 weeks of age. The prebiotics in the supplement help to maintain a healthy gut in dogs with sensitive stomachs. It is wheat gluten free with no added artificial colours, preservatives or artificial flavours.



VetSpec **Healthy Dog Adult** Formula

VetSpec Healthy Dog Adult Formula is an outstanding Veterinary Specification Healthy Dog Adult supplement in a CEREAL-GRAIN-FREE Super Premium dog food including 60% Chicken with added vegetables and herbs. It is a superb product for all dogs including show dogs and working dogs. The specialised supplements include Biotin and other associated nutrients to improve the coat and promote a supple skin for dogs that have problems in this area. The prebiotics in the supplement help to maintain a healthy gut in dogs with sensitive stomachs. It is wheat gluten free with no added artificial colours, preservatives or artificial flavours.



VetSpec **Omega-3 Joint Mobility** Formula

VetSpec Omega-3 Joint Mobility Formula is our highly successful Omega-3 Joint Mobility Supplement and VetSpec Healthy Dog Adult Formula (see above) combined to make one unique Veterinary Specification, CEREAL-GRAIN-FREE Super Premium dog food. The formula is rich in DHA and EPA (Omega-3s), glucosamine and chondroitin at levels only normally found in veterinary grade nutritional supplements. Omega-3 Joint Mobility Formula is ideal to provide nutritional support for dogs with poor mobility or those in hard work e.g. Dog Agility or Gun Dogs.



VetSpec **Calm & Focused** Formula

VetSpec Calm & Focused Formula is our very effective Calm & Focused Supplement and VetSpec Healthy Dog Adult Formula (see above) combined to make one unique Veterinary Specification, CEREAL-GRAIN-FREE Super Premium dog food. VetSpec Calm & Focused Formula is ideal for all dogs that get anxious and over-excitable, suffer from separation anxiety or fear loud noises like fireworks. It is also very helpful when training young dogs to improve focus and obedience. Its formulation includes tryptophan, prebiotics and magnesium.



VetSpec **SuperLite® Low-Calorie** Formula

Latest research would indicate that up to 45% of all dogs are overweight and this can lead to clinical problems later in life. VetSpec SuperLite® Low-Calorie Formula has all the benefits of VetSpec Healthy Dog Adult Formula (see above) but is on a base food with 20% less calories if fed as directed. This means that you can control your dog's weight but still feed a delicious feed, packed with high quality vitamins and minerals that your dog still needs on a daily basis. VetSpec SuperLite® Formula is an outstanding Veterinary Specification supplement in a CEREAL-GRAIN-FREE Super Premium dog food including 50% Chicken with added vegetables and herbs.



VetSpec **SuperLite® Senior** Formula

VetSpec SuperLite® Senior Formula is designed to address the nutritional challenges that dogs face as they reach their more senior years. It consists of a complex Veterinary Specification supplement within a CEREAL-GRAIN-FREE Super Premium dog food including 50% Chicken with added vegetables and herbs. In particular older dogs need optimum nutrition to support a healthy immune system, which means a diet rich in anti-oxidants such as Vitamins A, E, and C and other natural sources. They are also often overweight because they are less likely to be as active and therefore need less calories on a daily basis. Just as important for older dogs is that they need more nutritional support to maintain healthy flexible joints. These complex requirements are all now built into a single delicious complete dog food - VetSpec SuperLite® Senior Formula. When fed at the recommended rate additional individual supplements are therefore no longer required.