

What is the proposed mechanism of action to induce a calming effect?

Calming Care utilizes a strain of bacteria, *Bifidobacterium longum* (BL999), which has been shown to help dogs maintain calm behavior.

Diet related changes in gut-microbiota can influence the brain via the gut-brain axis and may, in turn, influence behaviors including anxiety. Recent studies suggest a role for both the vagus nerve and modulation of systemic tryptophan levels in relaying the influence of both the resident and exogenous microflora along this bidirectional communication axis.

The proposed mechanism of action involves the various routes of communication that exist between the microbiota and the brain which are slowly being discovered, and they include the CNS, neuroendocrine and neuroimmune systems, the sympathetic and parasympathetic arms of the autonomic nervous system, the enteric nervous system, and the intestinal microbiota.¹

What strain of bacteria is in this probiotic product?

The strain of bacteria in Calming Care is *Bifidobacterium longum* (BL999).

Can this be fed with FortiFlora?

FortiFlora® and Calming Care utilize two different strains of bacteria, *Enterococcus faecium* (SF68) and *Bifidobacterium longum* (BL999) respectively. Different strains of probiotics have different effects on the body. The promotion of normal intestinal microflora produced through use of FortiFlora specifically targets gut health and gastrointestinal related issues, such as diarrhea. Calming Care, by contrast, communicates with the central nervous

system where it has an anxiolytic effect on the dog. It has not yet been studied whether or not these two probiotics have a synergistic effect if fed together.

How should Calming Care be prescribed?

Calming Care has been shown to be efficacious after 6 weeks of administering one sachet per day. Calming Care should be taken on a daily basis and not as a short-term anti-anxiety solution for sporadic stressful events, such as fireworks, but as part of a multimodal approach involving behavioral and environmental modifications.

Is Calming Care effective in helping cats maintain calm behavior?

Calming Care is currently only available for canines. The study conducted, which confirmed the efficacy of BL999, was a canine study.

Are there other products like this on the market?

There are other products on the market which claim to have an anxiolytic effect on dogs. The treatment for anxiety should be a multimodal approach which includes behavioral and environmental modifications. Calming Care is complementary to existing behavioral and environmental modes of treatment or it may be used as a sole therapy.

Will it help with Cognitive Dysfunction Syndrome (CDS)?

We recommend PPVD NeuroCare for the nutritional management of dogs with CDS.

¹ S. Grenham, G. Clarke, J.F. Cryan, T.G. Dinan (2011). Brain-gut-microbe communication in health and disease *Front. Physiol.*, 2, 1-15.

How strong are the calming effects?

We found a significant impact of BL999 on day-to-day anxious behaviors with dogs showing an improvement in their behavior when supplemented with BL999 as compared to when they were supplemented with a placebo. This includes:

- Demonstrating improvement in dogs displaying anxious behaviors such as excessive vocalization, jumping, pacing, and spinning.
 - Maintaining positive cardiac activity during stressful events.
 - Blunting cortisol response to anxious events.
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Are there any contraindications to administering Calming Care?

There are no contraindications. Calming Care can be one tool in a multimodal approach.

Does Calming Care need to be refrigerated?

No. Calming Care should be kept in a cool, dry environment.

Does Calming Care have a palatability claim?

Similar to FortiFlora®, Calming Care has excellent palatability.

When should Calming Care be prescribed?

Once anxiety is diagnosed, Calming Care may be used as a sole therapy or as a component of multimodal therapy. Calming Care provides an additional tool for veterinarians to help manage anxiety in dogs on an ongoing basis.

Are there any published papers to substantiate Calming Care claims?

An abstract was presented at the American College of Veterinary Behavior Symposium in 2018. The manuscript has been submitted for publication.

Where do I go for more information on canine anxiety?

- Becker M, Radosta L, Wailani S, et al. *From Fearful to Fear Free*. Deerfield Beach, FL: Health Communications, Inc. 2018.
- <https://fearfreepets.com>
- Horwitz DE, Ciribassi J, and Dale S. *Decoding Your Dog*. Houghton Mifflin Harcourt Publishing Company. 2014.
- Fears, Phobias, and Anxieties – Dogs. In: *Blackwell's Five-Minute Veterinary Consult: Canine and Feline*. 5th ed. Southern Gate, Chichester, West Sussex, PO19 8SQ, UK, 2011: 456-457.

“I can unequivocally say that Calming Care is a valuable tool in helping to achieve and maintain calm behavior in dogs.”

-Dr. Marty Becker, DVM

For more information, visit www.PurinaProPlanVets.com or call us at 1-800-222-VETS (8387), 8:00 am to 4:30 pm CST, Monday-Friday.

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