

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 and cats maintain calm behaviour.

Diet-related changes in gut-microbiota can influence the brain via the gut-brain axis and may, in turn, influence behaviours 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

When should Calming Care be recommended?

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 and cats on an ongoing basis.

How should Calming Care be administered?

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 changes in routine and location, but as part of a multimodal approach involving behavioural and environmental modifications.

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 dogs and cats. It has not yet been studied whether or not these two probiotics have a synergistic effect if fed together.

How strong are the calming effects?

We found a significant impact of BL999 on day-to-day anxious behaviours with dogs and cats showing an improvement in their behaviour when supplemented with BL999 as compared to when they were supplemented with a placebo.

For dogs, this includes:

- Demonstrating improvement in dogs displaying anxious behaviours such as excessive vocalization, jumping, pacing, and spinning.
- Maintaining positive cardiac activity during stressful events.
- Blunting cortisol response to anxious events.

For cats, this includes:

- Demonstrating improvement in cats displaying anxious behaviours such as pacing.
- Helping blunt cortisol, a marker of stress.

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.

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 and cats. The treatment for anxiety should be a multimodal approach which includes behavioural and environmental modifications. Calming Care is complementary to existing behavioural and environmental modes of treatment or it may be used as a sole therapy in patients with mild anxiety.

Are there any contraindications to administering Calming Care?

There are no contraindications. Calming Care can be used as a sole therapy or as a component of multimodal therapy.

Does Calming Care need to be refrigerated?

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

Are there any published papers to substantiate Calming Care claims?

Purina scientists assessed the impact of BL999 on anxious behaviour in dogs and presented an abstract at the American College of Veterinary Behaviour Symposium in 2018. The manuscript has been submitted for publication. Additionally, researchers at Colorado State University assessed the impact of BL999 on anxious behaviour in cats and presented an abstract at the 2021 American College of Veterinary Internal Medicine Forum.

Why does Calming Care Feline contain Vitamin E?

A common clinical sign of anxiety in cats is overgrooming. Vitamin E is an essential nutrient for cats and helps support a healthy skin barrier. Vitamin E also helps support a healthy immune system by reducing oxidative stress.

Where do I go for more information on canine and feline anxiety?

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

“I have found that Calming Care works well in combination with medications and behaviour modification therapy, as well as a sole form of therapy in patients with mild anxiety.”

-Dr. Amy Pike, DVM



For more information, visit www.ProPlanVeterinaryDiets.ca or call us at 1-866-884-VETS (8387).

Have a Case consult? We are here to help. Contact our Canadian Veterinary Resource Centre at canadavetconsult@purina.nestle.com