

GUT HEALTH BENEFITS OF CALMCO® PROBIOTIC

**How a Unique Combination of
Probiotic Strains Can Support
Digestive Health and Help Relieve
Colic Symptoms**

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INTRODUCTION

Infant colic, also commonly recognized as consistent unexplainable and inconsolable crying, can have severe impact on new families' quality of life. Being characterized as one of the top reasons for newborn pediatrician visits, colic is a high concern among caregivers and medical professionals. Roughly 1 out of every 4 babies worldwide meet the criteria for a medical diagnosis of colic.

To date, little information is known about colic. Although an exact cause has not been pinpointed, some evidence suggests that it may be caused by trapped intestinal gas, gastroesophageal reflux (GER), food sensitivities, or bacterial imbalance. Because research has suggested that colic may be associated with gut health, probiotics became a potential noteworthy remedy to explore.

CalmCo®, the makers of Colic Calm® and Colic Calm Plus®, are on a mission to encourage families to be their best and healthiest selves. A major part of that is helping parents combat the challenges associated with infant colic.

Through extensive research and development, CalmCo adopted a unique probiotic formula to create CalmCo Probiotic Drops. This formula contains certain strains that have been demonstrated to help ease colic symptoms. Two recent clinical studies, an In Vitro study and a Floradapt™ study, found that strains in CalmCo's Probiotic formula do indeed decrease daily crying time and provide additional gut support in colicky babies when administered as a regular digestive supplement.

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CALMCO PROBIOTIC FORMULA

The CalmCo Probiotic Formula is a unique 5-strain formulation composed of *Pediococcus pentosaceus* KABP™ 041, *Bifidobacterium longum* KABP™ 042, *Lactiplantibacillus plantarum* KABP™ 051, *Levilactobacillus brevis* KABP™ 052, and *Pediococcus acidilactici* KABP™ 053. Other ingredients in CalmCo Probiotic Drops include sunflower oil, Silicodioxide, and natural Vitamin E.

Although CalmCo Probiotic offers variations of health benefits for infants, Figure A highlights the benefits of each strain in regards to infant gut health including:

- Support of a healthy gut colonisation
- Resistance against colic-related bacteria
- Induction of anti-inflammatory molecules



<i>Bifidobacterium longum</i> KABP™ 042	CECT 7894	<ul style="list-style-type: none"> → Antagonistic activity against colic-related pathogenic bacteria → Digestion of HMOs, supporting a healthy gut colonisation → Homofermentative metabolism (no CO₂ production)
<i>Pediococcus pentosaceus</i> KABP™ 041	CECT 8330	<ul style="list-style-type: none"> → Induction of anti-inflammatory molecules (IL-10) → Homofermentative metabolism (no CO₂ production)
<i>Lactiplantibacillus plantarum</i> KABP™ 051	CECT 7481	<ul style="list-style-type: none"> → Good aggregation and adhesion to tissues in the oral cavity, preventing overgrowth of undesirable bacteria
<i>Levilactobacillus brevis</i> KABP™ 052	CECT 7480	<ul style="list-style-type: none"> → Good tolerance against lysozyme and most antiseptics found in mouthwashes
<i>Pediococcus acidilactici</i> KABP™ 053	CECT 8633	<ul style="list-style-type: none"> → Antagonistic activity against oral pathogenic bacteria → Low production of acid and malodorous compounds

Figure A

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IN VITRO: IMPACT ON INFANT COLIC

Evaluating the impact of in vitro probiotic properties, found in CalmCo Probiotic Drops, on Infant Colic.

In 2015, a clinical study aimed to evaluate the efficacy and tolerability of in vitro probiotic properties—specifically *Pediococcus pentosaceus* and *Bifidobacterium longum*—for treating infant colic. Following 14 days of daily administration in infants 3 weeks old to 4 months old, the data demonstrated a positive impact. As a result, infants showed about a 50% reduction in daily crying time and an induction in the production of anti-inflammatory IL-10. Even when compared with a placebo group, the probiotic group demonstrated greater benefits in these areas.

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FLORADAPT™: IMPACT ON INFANT COLIC

Evaluating the impact of Floradapt™ Baby Colic, a combination of two probiotic ingredients found in CalmCo Probiotic Drops, on Infant Colic.

A later study resulted in similar findings as the in vitro study, further supporting the effectiveness of these two probiotic ingredients. Floradapt™ Baby Colic, a probiotic combination of *Pediococcus pentosaceus* and *Bifidobacterium longum*, underwent a clinical study trial with colicky babies. After a trial period of 14 days administering this probiotic combination, clinical data results demonstrated a 69% reduction in daily crying time, improvement in "good" gut bacteria, decreasing gas by limiting the growth of "bad" gut bacteria, and induced expression of anti-inflammatory molecules found through post-trial testing. Because of these two strains' ability to support a healthier microflora balance and optimization of gut comfort, infants were reported to having a total lower daily crying time and cry for shorter stints of time throughout the day. Consistent with the in vitro study, the probiotic group demonstrated greater benefits than a placebo group.

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CONCLUSION

Consistencies in the results of the in vitro study and the Floradapt™ study conclude the following about the combination of CalmCo's *Pediococcus pentosaceus* and *Bifidobacterium longum* probiotic strains:

- **Daily crying time is dramatically reduced in colic infants.**
- **The production of anti-inflammatory molecules was increased in colic infants.**

These results demonstrate that CalmCo Probiotic Drops' 5-strain, proprietary probiotic blend is clinically proven to be safe, gentle, and effective in daily support for infant digestive health and colic relief.* This probiotic contains guaranteed live cultures** and delivers 1.5 Billion CFU per serving.**

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

**Cultures guaranteed under indicated optimum conditions.

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CITATIONS

- Santas, J. Fuentes, MC. Tormo, R. Guayta-Escolies, R. Lazaro, E. Cune, J. PEDIOCOCCUS PENTOSACEUS CECT 8330 AND BIFIDOBACTERIUM LONGUM CECT 7894 SHOW A TREND TOWARDS LOWERING INFANTILE EXCESSIVE CRYING SYNDROME IN A PILOT CLINICAL TRIAL. International Journal of Pharma and Bio Sciences. 2015.
- Kaneka Probiotics. Floradapt™ Baby Colic Claims Substantiation Dossier. Kaneka Americas Holdings, Inc. 2019.