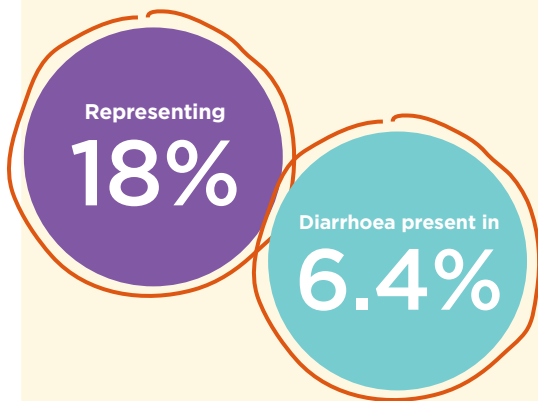




## DO BACTERIAL GI SUPPORT PRODUCTS WORK?

**Gastrointestinal problems are common in dogs:**



of all non-routine veterinary visits for dogs<sup>1</sup>

Using bacterial GI support products can help preserve the balance of the intestinal microbiome, helping to maintain general health and avoid GI disturbances, particularly:

- in situations where there is an increased risk of dysbiosis
- for younger and older animals, where GI upsets are more common<sup>2</sup>
- in animals that are predisposed to GI problems
- when a healthy microbiome is especially important (e.g. pregnancy and lactation)



Dysbiosis - alterations in microbial composition and/or diversity. A key feature of intestinal dysbiosis is not only a decrease or increase of specific bacteria but also a decrease of intestinal microbiome function.<sup>3</sup>

# What can bacterial GI support products do?

## Reduce the risk of GI disturbances

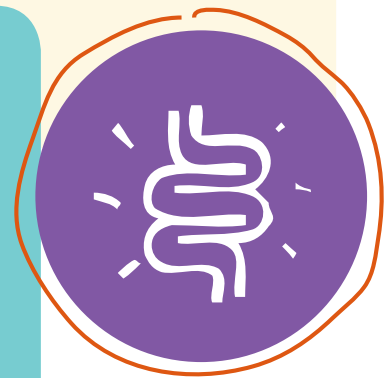
Human studies document the benefits of using bacterial GI support products to prevent gastrointestinal conditions.<sup>4</sup>

The use of bacterial GI support products has been shown to reduce the number of potentially pathogenic bacteria in the canine gut.<sup>5</sup>

### Due to stress

When used prior to and during stressful events, canine studies have shown bacterial GI support products may help to:

- Maintain normal stool consistency<sup>6</sup>
- Reduce stress-related gastro-intestinal conditions<sup>6</sup>
- Reduce the incidence of diarrhoea<sup>6,7</sup>



### Due to physical changes that affect the microbiome

Sudden dietary change (including scavenging), antibiotic use and gastrointestinal issues can result in dysbiosis. 5%-35% of humans<sup>8</sup> who take antibiotics experience diarrhoea as a side-effect and diarrhoea was found to occur in 56% of dogs treated with metronidazole<sup>9</sup>. It has been demonstrated that in cases of severe dysbiosis (e.g. after a course of antibiotics), the intestinal microbiome can take years to fully recover with no intervention.<sup>10</sup>

Studies in dogs have found that the administration of bacterial GI support products can help to:

- Prevent and treat antibiotic induced diarrhoea<sup>11</sup>
- Reduce the likelihood of inappetence<sup>9</sup>

In humans, bacterial GI support products have been shown to have a role in preventing antibiotic associated diarrhoea, in a meta-analysis of 25 randomised controlled trials (2180 patients), bacterial GI support products were found to have an overall protective efficacy.<sup>8</sup>



## Help during gastrointestinal disturbances

### Acute gastrointestinal disturbance (especially prior to faecal testing)

The use of bacterial GI support products in cases of acute, non-complicated diarrhoea in dogs may help to:

Accelerate normalisation of stool consistency<sup>5</sup>

Improve general well-being<sup>5</sup>  
Good appetite, no vomiting and reduced discomfort

Reduce the duration of diarrhoea<sup>12-14</sup>

Decrease the requirement for antimicrobials because of non-improvement or deterioration<sup>13,15</sup>

Accelerate normalisation of the intestinal microbiome after acute haemorrhagic diarrhoea<sup>16</sup>

This is consistent with human studies, where these products have been found to reduce the duration of clinical signs in children with acute diarrhoea.<sup>17,18</sup> A meta-analysis of 63 human studies found that the use of bacterial GI support products was beneficial, shortening the duration of clinical signs and reducing the stool frequency in cases of acute infectious diarrhoea.<sup>19</sup>

### Chronic gastrointestinal disturbances

Canine specific studies show that the use of bacterial GI support products in cases of chronic gastrointestinal conditions may help:

- Normalise the intestinal microbiome<sup>20</sup>
- Decrease clinical signs and duodenal histological scores in dogs with IBD<sup>20</sup>
- Promote intestinal mucosal homeostasis<sup>21</sup>
- Reduce inflammation and proliferation in dogs with IBD and colonic polyps<sup>22</sup>
- Reduces signs of colonic dysmotility<sup>23</sup>



In human celiac studies, the use of bacterial GI support products has been found to reduce the inflammatory response and help promote a healthier intestinal microbiome.<sup>24</sup>



## Support during pregnancy and lactation

A healthy intestinal microbiome in the dam is essential for the pup's microbial development.<sup>25</sup>

In human studies, alterations in the mother's microbiome have been shown to modulate foetal immune development.<sup>25</sup>

## Improve general GI health

Bacterial GI support products have been shown to:

- Enhance intestinal health<sup>2,27,5</sup>
- Promote a dog's own commensal bacteria<sup>5</sup>

## Support overall health

Supporting the intestinal microbiome with bacterial GI support products can have positive effects on other body systems. For example,

- Improved immune function<sup>26,28</sup>
  - Systemic changes observed including increased neutrophil, monocyte and serum IgG concentrations and nitric oxide concentration<sup>26</sup>
- Increase glomerular filtration rate in dogs affected by chronic kidney disease<sup>29</sup>

Evidence of the influence that the health of the intestinal microbiome has on various body systems is continually growing

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