



HOWARU® RESTORE

Your daily challenge

Help maintain good digestive health during episodes of gut stress

Help minimize gastrointestinal symptoms associated with antibiotic use

The clinically proven probiotic for restoring gut health

Of all the organs in the human body, those of the gut are most susceptible to external stress factors that can throw your beneficial bacteria off balance and undermine the body's natural frontline of defense. Antibiotic treatment, travel, a poor diet and a hectic way of life are just some of the stresses your GI tract may encounter on a daily basis.

HOWARU® Restore is a probiotic formulation combining top-quality lactobacilli and bifidobacteria strains to address gut stress episodes. This clinically-documented formulation demonstrates proven efficacy in strengthening gut health.

The HOWARU® Restore formulation is designed to provide 50% by count of those bacteria that are adapted to the upper intestine—specifically the *Lactobacillus* species: *L. acidophilus* NCFM® and *L. paracasei* Lpc-37™. The remaining 50% by count is provided by *Bifidobacterium* species, which are adapted to the lower intestinal tract. These strains are *B. lactis* Bi-07™ and *B. lactis* BI-04™.



DANISCO®

Gut health restored

More and more consumers understand the link between gut health and overall health and well-being. Gut health can be negatively influenced by the stresses of everyday life – poor diet, skipped meals and travel, as well as antibiotic and prescription drug use to name a few. For example, antibiotic-associated diarrhea (AAD) is experienced by 1 in 5 antibiotic users or 180 million people annually. Studies have shown that one of the most effective and natural precautions consumers can take to overcome the negative effects of gut stresses, such as antibiotic therapy, is to supplement the diet with an efficacious dose of live and active probiotic bacteria.

For patients who are experiencing general gastrointestinal discomfort caused by these daily stressors, doctors frequently recommend eating yogurt. However, not all yogurts contain probiotics. Furthermore, yogurts and most probiotic supplements deliver a far lower dose of probiotics than contained in HOWARU® Restore. Additionally, most of these products lack any clinical data supporting their ability to rapidly reestablish gut microflora after GI stress.

The beneficial effect of HOWARU® Restore probiotics on the incidence of AAD and *Clostridium difficile*-associated diarrhea (CDAD) during and after antibiotic use has been confirmed in a large (N = 503), randomized, triple-blinded, placebo-controlled, dose-ranging study in healthy adult, inpatient volunteers requiring antibiotic therapy.*

In this study, the primary objective was to investigate the incidence of AAD at different doses of the HOWARU® Restore probiotic compared with a placebo. The secondary objectives were to investigate the dose effect on the severity and duration of AAD and CDAD, the number of liquid stools per day, fever, bloody stools, bloating and abdominal pain.

Subjects were stratified according to age (30–49 and 50–70 years), sex, and antibiotic treatment duration (3–8 and 9–14 days). HOWARU® Restore was administered from the start of antibiotic therapy and continued for 7 days after the cessation of antibiotic treatment.

KEY STUDY FINDING: HOWARU® RESTORE LOWERED THE INCIDENCE OF AAD, CDAD AND GASTROINTESTINAL SYMPTOMS IN A DOSE-DEPENDENT MANNER IN ADULT INPATIENTS.

HOWARU® Restore has been shown to reduce the impact of AAD in patients undergoing antibiotic therapy. Clinical study patients experienced a significant reduction in each of the following:

- Number of episodes of AAD
- Duration of diarrhea and number of liquid stools
- Diarrhea-associated symptoms such as fever, bloating and abdominal pain

HOWARU® Restore can be delivered successfully in:

- Supplements—capsules, tablets and powders
- Plain or flavored yogurts
- Fresh-fermented or non-fermented milks

*Study currently pending publication

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