



HOWARU® PROTECT KIDS

Helps Keep Children Healthy

Protecting Kids Against Everyday Threats

Germ and viruses are everywhere — at daycare, school, public transportation — there's no getting away from them. That's why colds and flu are the most frequent infectious diseases worldwide. Children can be affected up to six to ten times a year with symptoms ranging from runny noses to fevers, and often resulting in missed days from school or day care.

Colds and flu are considered a major public health issue. They represent a significant economic burden in the form of health care costs and lost work days by parents of sick children. Supporting a child's immune system to combat seasonal stressors can be an effective preventive measure. Several studies have shown that probiotics may help maintain and reinforce immune defenses.

Helping Kids Stay Healthy Around the Globe



But not all probiotics are the same. IFF scientists have developed HOWARU® Protect Kids, a unique proprietary* probiotic formulation with documented benefits to help keep children healthy.

Product Attributes

5B CFU

Bifidobacterium lactis (HOWARU Bi-07™)

5B CFU

Lactobacillus acidophilus
(HOWARU NCFM™)

- ⊖ Helps promote optimal health and wellness in children
- ⊖ For maintenance of respiratory health in children
- ⊖ Helps shorten duration of symptoms and supports fewer missed school days



Immune
Health



Respiratory
Health

Benefits of HOWARU® Protect Kids

A double-blind, placebo-controlled clinical study measured the incidence and duration of cold- and flu-like symptoms in healthy children between 3 and 5 years of age.

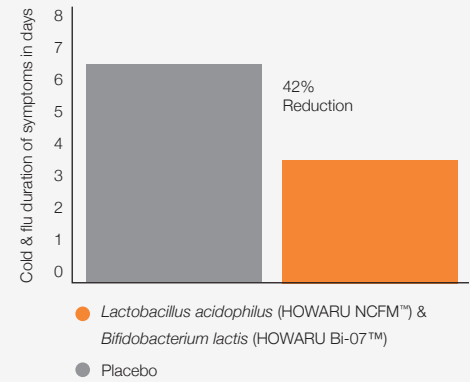
The study was conducted from November to May, when children are particularly vulnerable to seasonal illness because of inclement weather conditions. The study, "Probiotic Effects on Cold & Influenza-Like Symptom Incidence and Duration in Children," *Pediatrics* 2009; 124: e172-e179, monitored the impact of *Lactobacillus acidophilus* (HOWARU NCFM™) and *Bifidobacterium lactis* (HOWARU Bi-07™), commercially known as HOWARU® Protect Kids, versus a placebo. Cold- and flu-like symptoms — namely headache, sore throat, runny nose and fever — as well as other symptoms were evaluated. Each symptom was documented as to its frequency, duration and severity, adhering to guidelines issued by the World Health Organization. The study also recorded the incidence of illness-related or flu-like symptoms and the number of absences from day care due to illness or fever.

Results from the study showed a significant reduction in fever, cough and runny nose. The number of sick days taken was reduced by nearly half, and reported antibiotic usage was reduced by 80 percent for those

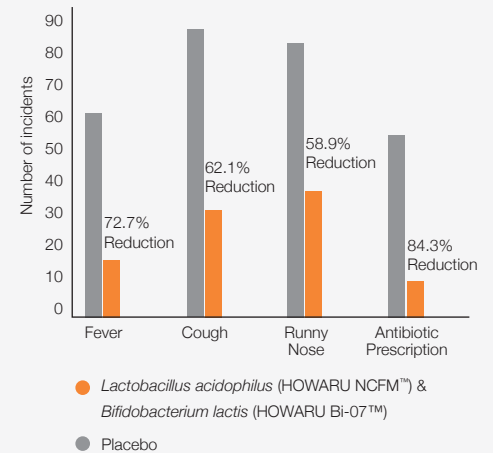
Key Findings

- ✔ Support of respiratory health with symptom duration shortened from 6.5 to 3.5 days
- ✔ A decrease in incidences of respiratory symptoms
- ✔ A strong reduction in antibiotic use
- ✔ Reduced the number of sick days

HOWARU® Protect Kids: NCFM® and Bi-07™ reduces number of sick days



HOWARU® Protect Kids: NCFM® and Bi-07™ reduces symptoms and antibiotic use



Figures adapted from Leyer et al. 2009

*Patent families WO 04/052462 and WO 12/168732

References

1. Leyer, GJ, Li, S, Mubasher, ME, Reifer, C and Ouwehand, AC. 2009. Probiotic effects on cold and influenza-like symptom incidence and duration in children. *Pediatrics* 124(2): e172-179. Results reported are from placebo and NCFM & Bi-07 combination; NCFM alone results not shown.


OUR HOWARU® PROMISE

As a trusted global leader in probiotic solutions, we offer the broadest range of robust, clinically-studied strains. You can be confident that our extensive portfolio, strong consumer insights, and unmatched global support and services make us your ideal partner in probiotic innovation.







Our Strains Area:

- ✓ Backed by Science
- ✓ Identified with complete genome. Every strain has been sequenced and fully assembled
- ✓ Tested for virulence and toxigenic properties and the absence of antibiotic resistance transfer potential
- ✓ Tested for toxicity to confirm safety for human consumption
- ✓ Formulated and evaluated to ensure viability through end of shelf life
- ✓ Generally Recognized as Safe (GRAS) or FDA notified without objection as a New Dietary Ingredient
- ✓ Manufactured in the USA under FDA Good Manufacturing Practices

Exceptional Quality

-  High Performance
-  High Stability
-  High Functionality

Our Areas of Expertise

-  Women
-  Weight Management
-  Immune
-  Oral
-  Digestive
-  Brain

Howaru
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