



## HOWARU® PROTECT KIDS

Helps keep children healthy

### Your daily challenge

Helping children stay healthy

Tailor-made products for the consumer you are targeting

Supporting your products with clinically-documented probiotics

Safe probiotics for your products

### Protecting kids against everyday threats

Germ and viruses are everywhere — at day care, 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 children around the globe

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



## Proven 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* NCFM® and *Bifidobacterium lactis* 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 children taking the NCFM® and Bi-07™ combination.

Key findings for HOWARU® Protect Kids:

- 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

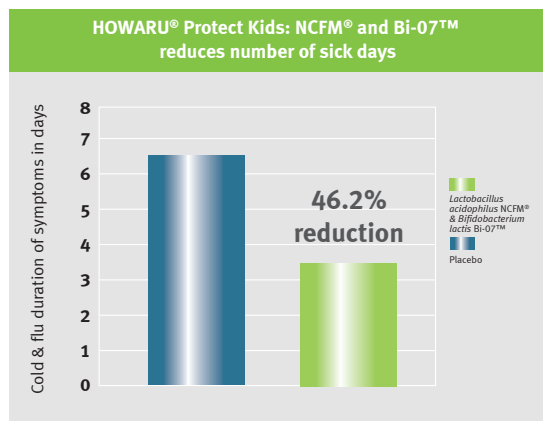


Figure adapted from Leyer et al. 2009

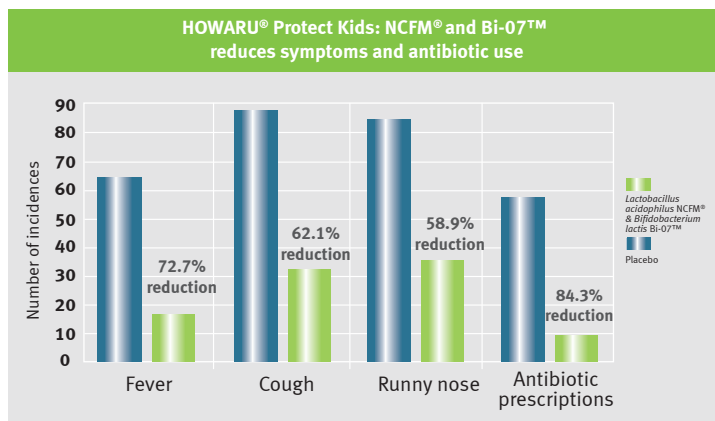


Figure adapted from Leyer et al. 2009

## Why choose HOWARU® Protect Kids?

- A documented probiotic solution developed to support the health of children. Benefits delivered at 10 billion CFU of *Bifidobacterium lactis* Bi-07™ and *Lactobacillus acidophilus* NCFM®
- A range of convenient ready-to-market formats and concentrate available for the sports nutrition, consumer health care, dietary supplements, and food and beverage industries, or as a custom formulation suited to your desired delivery format
- Patented probiotics\* for their immune health properties and shelf-stable stabilization technology

\*Patent families WO 04/052462 and WO 08/042101

## Why choose DuPont?

- Leaders in Probiotic science
- Broadest range of clinically-documented probiotics
- Unrivalled dietary supplement formulation expertise
- Global and regional applications expertise used widely by the food & beverage industries
- Robust regulatory support to help you comply with local requirements
- Marketing support and industry insights to help you successfully position your products

## References

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.

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