



## HOWARU<sup>®</sup> SMILE

Supports a healthy smile

### Clinically-documented probiotics for oral health

A healthy smile is a top health concern of many adults today. Periodontal diseases represent a major cause of expenditure in the adult and geriatric populations, with 8 out of 10 people aged 35 years and over suffering from some form of gum complaint. Since oral health has a direct effect on overall health, treatment of these diseases can potentially reduce medical costs of patients diagnosed with a variety of other ailments including Type 2 diabetes, heart disease and stroke, however; current preventative treatments are only partially effective. There is a drastic need to develop new, more effective and efficient care approaches for gum issues. Fortunately, recent studies have indicated that certain probiotics can have positive effects regarding oral health. One such probiotic is *Bifidobacterium lactis* HN019™.

HOWARU<sup>®</sup> Smile is formulated entirely with *B. lactis* HN019™, offering a natural, alternative way to support healthy gum tissue and promote an overall healthy smile.

### Your daily challenge

- Supporting gum health
- Promoting healthy oral microbiota
- Lowering cost of oral health treatment
- Documented clinical evidence to support your products
- Proven safety

## Why Oral Health?

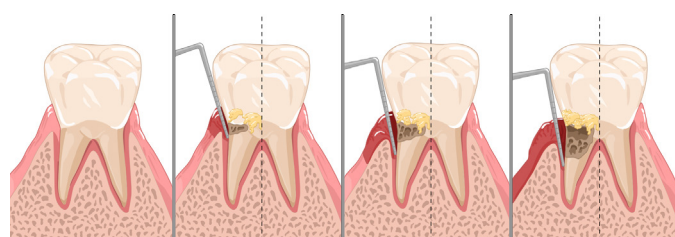
Probiotic supplementation is often associated with gastrointestinal benefits, but the body of research is growing for the additional benefits consumers can gain that go beyond digestive and immune support. One such area of research is oral health.

Less than 10% of 35-44 year olds have healthy gums, which is a concerning statistic knowing that many serious health concerns stem from oral health. Poor oral health may contribute to everything from cardiovascular disease to endocarditis, an infection of the inner lining of your heart, to premature birth and low birth weight. Therefore, in addition to daily good oral hygiene practices, HOWARU® Smile may provide an effective way to support oral health and moreover; overall health.

## Periodontal Disease

The oral cavity is home to more than 700 different species of bacteria. These bacteria form communities in the mouth called biofilms, which live in saliva-covered soft and hard tissues. These biofilms are associated with oral diseases such as tooth decay and periodontal (gum) disease, which is an infection and inflammation of the gums and tissue that hold teeth in place.

A common form of gum disease is gingivitis, an inflammation of the gums which causes bad breath, tooth pain, and gums that bleed easily. Untreated gingivitis may develop into a more serious condition called periodontitis, which is a severe gum infection that can lead to tooth loss and other health complications- see Figure 1. In fact, periodontitis is considered a risk factor for heart and lung diseases.



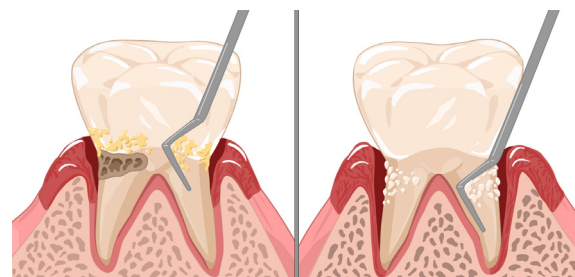
Healthy Gums	Gingivitis (2-3 mm pockets) - gums become red and bleed easily	Moderate periodontitis (4-6 mm pockets) - gum recession, bone and tissue destruction	Severe periodontitis (more than 6 mm pockets) - extensive bone and tissue loss, teeth can become loose
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Figure 1: Gingivitis and Periodontitis- the importance of the oral biofilm

## Traditional Treatment

Traditional treatment for periodontitis is scaling and root planning (SRP)-see Figure 2. This process involves removing plaque and tartar from the gum line (scaling) and then scraping the root surface to allow gum tissue to reattach better (planning).

SRP can be uncomfortable and may take several visits to address different portions of the mouth. In addition, SRP may cause a sore and sensitive mouth that is swollen and bleeds for a few days following the procedure.



### Scaling

Cleaning that removes plaque and tartar from gum line

### Planing

Scraping, smoothing of root surface to allow gum tissue to reattach better to roots

Figure 2: Traditional treatment of periodontitis- Scaling and Root Planning (SRP)

## New Approach to Periodontal Treatment

Probiotic supplementation offers an alternative way to support oral health by affecting the composition of resident oral microbiota. A clinical study has shown that oral consumption of HOWARU® Smile containing *B. lactis* HN019™ increases effectiveness and acts synergistically with traditional treatment of periodontitis (SRP). It has shown to induce positive changes in oral microbiota and improve clinical outcomes – such as the attachment loss between the teeth and the gum as well as the pocket depth around the teeth. In addition, HN019™ has been shown to positively modulate the body's immune response. This may then promote patient healing and lower the overall cost of treatment.

## Why Choose HOWARU® SMILE?

- Promotes healthy oral microbiota
- Helps support healthy gum tissue
- Supports patient healing and symptom relief

## Why Choose DuPont?

- Leader in probiotic science
- Broadest range of clinically-documented probiotics
- Unrivalled dietary supplement formulation expertise
- Robust regulatory support
- Marketing support and industry insights to help you successfully position your products

## References

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