

# BLIS ™

## Probiotic for Dental Health



# Support Healthy Teeth and Gums



The mouth is a constant battleground where, on a daily basis, billions of invasive bacteria attempt to displace the native and generally beneficial bacteria of the mouth, teeth and gums. Common problems people often experience in their oral cavity, such as dental cavities, bad breath or gum disease, is a result of imbalanced oral bacteria. Most people practice regular oral hygiene routines, such as brushing their teeth, flossing and using mouthwash to reduce the “bad” bacteria in their mouths and freshen breath. However, these practices, while important, only provide short-term results and in some cases can actually disrupt the natural balance of beneficial microorganisms in the oral cavity.

**BLIS M18** is a new generation of advanced probiotic, friendly bacteria that can be used in conjunction with regular oral hygiene practices to establish a healthy balance of natural bacteria in the mouth and naturally protect the teeth and gums from oral and dental microbes.\*

## What is BLIS M18?

BLIS M18 is a totally new approach to managing oral hygiene and dental health. BLIS M18 is an oral probiotic providing advanced protection for teeth and gums. BLIS M18 was developed from a specific strain of *S. salivarius*, a common and beneficial oral bacterium, which has been shown to promote the health of the oral cavity by continuously supporting and promoting the health of teeth and gums.

BLIS M18 goes above and beyond regular probiotic activity because it produces anti-microbial proteins called **BLIS: Bacteriocin-Like Inhibitory Substances**. Most other probiotics work by competing with bacteria for space and nutrients in the mouth and in this way help prevent over-growth of bad bacteria. BLIS M18 is different. Not only does it compete for space and nutrients but it also produces three potent antibacterial BLIS molecules: Salivaricin A, Salivaricin 9, and Salivaricin M.<sup>(1,2)</sup>

These naturally occurring and potent anti-microbial proteins actively target and act up on microbes in the oral cavity giving BLIS M18 a wider range of activity.

## BLIS M18 is a special kind of *S. salivarius*

*S. salivarius* is among the most important and beneficial bacteria of the mouth and appears in the mouth of newborns within hours after birth. It is also one of the most dominant bacteria found in the oral cavity and substantial research links *S. salivarius* with good oral health. However, some *S. salivarius* are more beneficial than others and BLIS M18 is one of those highly beneficial bacteria. Unfortunately, most people do not have sufficient *S. salivarius* with BLIS M18 activity to promote oral and dental health.

Not all strains of *S. salivarius* act equally to inhibit oral and dental microbes. BLIS M18 is a naturally occurring strain that *In vitro* studies have shown is especially potent at inhibiting *Streptococcus mutans* (*S. mutans*).<sup>4</sup> *S. mutans* is a harmful oral bacteria considered a leading causative of dental caries and tooth decay.

# Advantages of BLIS M18™

- Supports healthy teeth and gums\*
- Helps protect teeth from bacteria shown to cause tooth decay\*
- Neutralizes acid in the oral cavity\*
- Helps break up dental plaque\*
- Together with good oral hygiene, unique enzyme producing abilities provide added protection for teeth\*
- Oral probiotic with advanced activity against dental microbes\*
- Proprietary strain of bacteria that produces potent BLIS anti-microbial molecules: Salivaricins A, 9, and M
- Able to colonize and persist in the mouth because it is a dominant oral strain (*S. salivarius*)
- Safe and effective for children and adults

## A Unique Enzyme Producer

M18 has unique enzyme producing abilities that allow it to break up dental plaque and neutralize acid that can be harmful to teeth and gums. This is a unique attribute of BLIS M18 and not found in any other oral probiotics.

## BLIS M18 Protects Teeth from Acid Erosion\*

Organisms responsible for dental plaque like *S. mutans* produce lactic acid from dietary carbohydrate. Lactic acid degrades tooth enamel and dentine (a major component of teeth) which can lead to cavities and eventually tooth loss. Research has shown that BLIS M18 produces an enzyme called urease which neutralizes acid in the oral cavity.<sup>3</sup>

## BLIS M18 Breaks Up Dental Plaque\*

While *S. mutans* are able to produce acid they also produce extracellular polysaccharides which contribute to the plaque biofilm or the sticky structure which allows the problematic bacteria to be in close association with dental tissue. Limited numbers of *S. salivarius* strains, including BLIS M18, produce an enzyme called dextranase, which can help break up the plaque biofilm caused by *S. mutans*.<sup>3</sup>

**BLIS M18™**  
**Probiotics**  
**enter mouth**

- Produces BLIS and unique enzymes
- Colonizes in the mouth

- Protects from *S. mutans*
- Breaks up dental plaque
- Neutralizes acid in oral cavity

Supports  
Healthy Teeth  
and Gums

## Product Applications

Because BLIS M18 is an oral cavity probiotic, ideal applications are those that allow contact with the mouth, such as:

- Chewable tablets or lozenges
- Stick packs
- Fast-melt tablets
- Powders
- Chewing gum



## ABOUT STRATUM NUTRITION

Stratum Nutrition is *Empowering Product Innovation* with functional and specialty ingredients for manufacturers and marketers of foods, beverages, and dietary supplements. Stratum offers a portfolio of branded, value-added ingredients that are progressive, safe and reliable. These ingredients are based on consumer need, supported by science and the backing of a trusted multi-national company.

As a Novus International company, we support the Corporate Mission to make a clear difference in sustainably meeting the growing global needs for nutrition and health with a Vision to help feed the world affordable, wholesome food and achieve higher quality of life.



## References

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3. J. P. Burton, P. A. Wescombe, P. A. Cadieux, J. R. Tagg. Beneficial microbes for the oral cavity: time to harness the oral streptococci. Beneficial microbes, Vol 2 (2), 93-101.
4. BLIS proprietary results, peer-reviewed publication in preparation.

\*These statements have not been evaluated by the Food & Drug Administration. Our products are not intended to diagnose, treat, prevent or cure any disease.

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