

FOREVER SMILES BRACKET CHATTER

Official Newsletter from Dr. Yan Razdolsky Specialist in Orthodontics for Children & Adults

PROBIOTICS IN ORTHODONTICS

It has long been understood that fixed brackets, bands, and wires used in patients receiving orthodontic treatment are convenient areas for the retention of food. In fact, one of the most troubling side effects of orthodontic treatment are white spot lesions left behind after treatment has ended. Since oral hygiene becomes more difficult while undergoing treatment, appliances become a perfect eco-system for the growth of microorganisms which can cause tooth decay and white spot lesions.

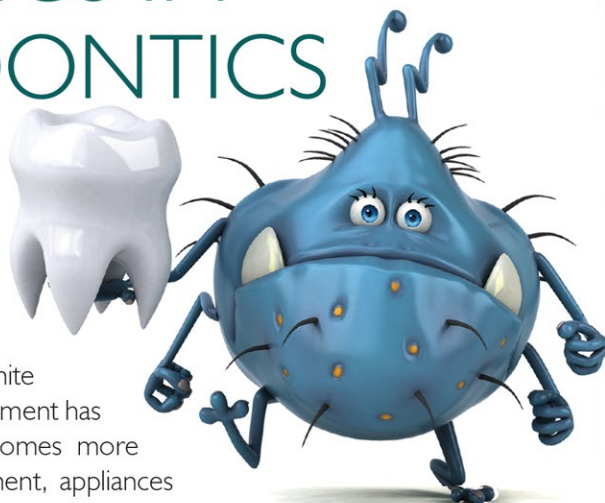
Although fluoride varnishes, tooth-pastes, and sealants are used to mitigate the damage caused by these microorganisms, more often it is found their effectiveness can only be observed when they are regularly used. This disadvantage leads researchers to explore probiotics as an alternative.

"Probiotics have been associated with gut health for a while now," said Dr. Yan Razdolsky. "And while most clinical interest has focused on the prevention or treatment of gastrointestinal infections and diseases; in the last decade, an increasing number of suggested health effects of probiotic bacteria have been reported, including enhancement of the adaptive immune response, treatment or prevention of urogenital and respiratory tract infections, and prevention or alleviation of allergies. And, now research suggests probiotics may play a significant role in our oral health, the implications of this are very interesting," he added.

Bacterial therapy or replacement treatment is an alternative way of fighting infections by using harmless bacteria instead of pathogenic microorganisms such as antibiotics. In fact, the benefits of probiotics in the prevention of tooth decay, halitosis, and periodontal disease have been accepted, and increased probiotic treatment of these issues has occurred due to the spread of antibiotic resistance in bacteria. Because of this and other perceived health benefits, probiotics can be found in an increasing number of dairy foods including milk, cheese and even ice cream! Research even indicates that probiotics added to a regular daily diet may benefit orthodontic patients as well.

Although the mouth is colonized by 200 to 300 bacterial species, the two main microorganisms that cause tooth decay are, *Streptococcus mutans* (*S mutans*) responsible for initial tooth decay and *Lactobacillus* which plays a role in those white spot lesions we were talking about. Recent studies even suggest the use of probiotic products in orthodontic patients may reduce salivary *S mutans* and *Lactobacillus* levels in patients. And while the studies demonstrating the effect of probiotic products and probiotic delivery methods

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YAN RAZDOLSKY D.D.S., L.T.D.



O R T H O D O N T I S T

FOREVER SMILES WE'RE REALLY INTO RESEARCH

Forever Smiles is proud to announce that we are part of the National Dental Practice-Based Research Network. This consortium of participating practices and dental organizations is committed to advancing knowledge of dental practice through research-based studies to improve clinical decision making. This new partnership will allow our office to offer our patients the latest technological advances in treatment materials and techniques, as well as participate in upcoming clinical trials to improve patient care nation-wide.

What makes this so important for you, our patient? Through affiliation with other dental health care providers and academic centers, Forever Smiles can research new opportunities for treatment and share expertise. There's strength in numbers. This highly-successful network amasses topics and ongoing discussions regarding issues that directly impact patient treatment in daily practice -- improving outcomes, satisfaction and efficacy of treatment.

Through his leadership and involvement in this network, Dr. Razdolsky will help develop and share clinical research advances, and engage in discussion with other PBRN members about scientific approaches.

Dr. Razdolsky has a passion for education, and at Forever Smiles we welcome any questions related to the science behind dental and orthodontic treatment.

**The National Dental
Practice-Based
Research Network**

The nation's network



PROBIOTICS IN ORTHODONTICS

are limited, the good news is researchers did find a decrease in salivary microbial colonizations in orthodontic patients who consumed probiotics daily.

For example, in one study researchers explored daily ingestion of probiotics and the application of a topical probiotic toothpaste, and their impact on salivary microbial colonizations in orthodontic patients.

While the group who used the probiotic toothpaste did see some reduction in harmful bacterial growth, the group who consumed kefir, a bacterial fermented milk, appeared to experience greater decrease in salivary microbial colonizations.

While the outcome of this study is promising, more studies are needed to compare the relevant probiotic systems, to evaluate the effect of different probiotic products in the fight against tooth decay in orthodontic patients. In the meantime, consumption of daily probiotics with your doctor's approval may just help protect your smile and minimize your chances for white spot lesions.

"We now understand that at least some probiotic bacteria used in various products may colonize the oral cavity during the time they are in use, and therefore their use is important to understand," said Dr. Razdolsky. "The extent to how probiotics influence damaging microorganisms is difficult to predict, so this research is important as it may provide new means of preventing or treating oral diseases."



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your
FOREVER SMILE
is very important to us
please tell us **HOW WE'RE DOING.**



In Closing

Thank you for being part of our Forever Smiles Family. If you have any questions about this newsletter or anything else, please do not hesitate to contact us at our Buffalo Grove office: 847-215-7554 or via email: yan@razdolsky.com. We look forward to providing you and our community with even more reasons to smile!

Truly,

www.razdolsky.com

Yan Razdolsky, DDS, BSD, LTD
Orthodontist for Children and Adults

