

INNOVATIVE CLINICAL RESEARCH IN PROBIOTICS

Bone health when aging



Probi is exploring a new health area for probiotics. The unique findings and the results from a successful clinical study were recently published in *The Lancet Rheumatology*.

Osteoporosis constitutes a major health concern, affecting mainly women, and places a large economic burden on the health care system and entails a lot of suffering for the affected persons by osteoporosis related fractures. The increasing number of fractures associated with the aging population emphasizes the importance of developing preventive solutions. The natural bone loss process increasing the risk for osteoporosis starts already around the age of 30-40. For women, the rate of bone density loss is greatest during the first few years in menopause and continues gradually in the post-menopausal years.

The randomized, double-blind, placebo-controlled trial included 249 post-menopausal women. The results provide evidence that bone loss is significantly reduced with a Probi® probiotic supplement. The product tested in the study contains a unique combination of three patent protected Probi® strains and was given daily for one year. The effect was measured on bone mineral density using Dual-energy X-ray absorptiometry (DXA). The subjects in the placebo group suffered significantly more bone loss over the study period as compared with the subjects treated with the three probiotic strains who were protected against bone loss.

The results show an opportunity to delay the progression of bone loss using the combination of probiotic strains in this healthy population, which may also lead to a reduced risk for osteoporosis.

Jansson P-A, Curiaç D, Lazou Ahrén I et al. Probiotic treatment using a mix of three *Lactobacillus* strains for lumbar spine bone loss in postmenopausal women: a randomized, double-blind, placebo-controlled, multicenter trial. *The Lancet Rheumatology*, 2019; 1: e154-62

Immune health for children



It is known that symptoms in the respiratory tract are one of the main causes for days away from school and work and it has been discussed that specific strains of probiotics could make a difference. We are now able to present data that support benefits from using Probi Defendum® by both adults and children.

Probi Defendum® is an immune concept based on two strains from Probi, *Lactobacillus plantarum* HEAL9 and *Lactobacillus paracasei* 8700:2. These strains have been clinically studied for effects on the immune system and their impact in the respiratory tract in adult populations has previously been reported

by Berggren 2011 and Busch 2013. The recent publication in the *European Journal of Nutrition* confirms for the first time the efficacy of Probi Defendum® also in children.

The study was conducted in Sweden during a winter season with healthy children 1-6 years old attending day care. The young participants were randomly allocated to consume either Probi Defendum® or placebo, once daily, for a period of 12 weeks.

The results show that Probi Defendum® may reduce nasal congestion and the need for concomitant medication.

Lazou Ahrén I, Berggren A, Teixeira C et al. Evaluation of the efficacy of *Lactobacillus plantarum* HEAL9 and *Lactobacillus paracasei* 8700:2 on aspects of common cold infections in children attending day care: a randomized, double-blind, placebo-controlled clinical study. *European Journal of Nutrition*, 2019, doi: 10.1007/s00394-019-02137-8

Iron status during pregnancy



A recently completed clinical trial has successfully demonstrated that Probi FerroSorb®, a unique probiotic concept containing *Lactobacillus plantarum* 299v®, significantly improves iron status in pregnant women.

Iron deficiency is the most common nutrient deficiency in the world and is especially common during pregnancy. Deficiency of iron can lead to anemia, which can cause multiple symptoms, e.g. fatigue and weakness, affecting the expecting mother. Furthermore, iron deficiency anemia may also confer negative outcomes for the baby, such as low birth weight, premature birth, and increased mortality. Iron supplementation is currently standard treatment for iron deficiency. However, only a small part of the supplemented iron is absorbed, and the remaining unabsorbed iron often causes side effects such as abdominal pain and constipation.

Probi FerroSorb® has earlier been proven to increase iron absorption in healthy women of childbearing age. This new randomized, double-blind, placebo-controlled trial on Probi FerroSorb® included 326 healthy, pregnant women. The results provide evidence that iron status is significantly improved for pregnant women after intake of Probi FerroSorb®. The product containing *Lactobacillus plantarum* 299v® and a carefully balanced mix of iron, vitamin C and folic acid, was administered twice daily from early pregnancy until delivery. The effect was measured on iron status and the treatment with the probiotic product showed significant improvement compared to placebo. **Supplementation with Probi FerroSorb® resulted in reduced iron deficiency, and also significantly reduced the prevalence of anemia and iron deficiency anemia, in healthy pregnant women.**

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Probi is a leader within probiotics – dedicated to probiotics only. Founded by scientists in Sweden in 1991, Probi is a multinational company with 4 centers of excellence, active in more than 40 markets around the world and holding over 400 patents worldwide.

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