Effect of chewing gums containing the probiotic bacterium *Lactobacillus reuteri* on oral malodour

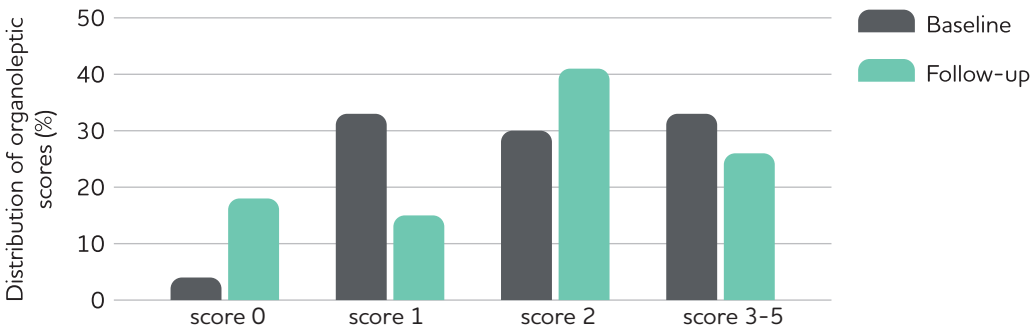
Keller MK, Bardow A, Jensdottir T, Lykkeaa J, Twetman S.
Acta Odont Scand. 2012;70:246-250.

Demonstrates that *L. reuteri* Prodentis reduces oral malodour (halitosis)

Results

- Significantly lower organoleptic scores in the *L. reuteri* Prodentis group compared to the placebo group ($p<0.05$)
- No adverse effects from chewing the gums were registered

Percent distribution of organoleptic scores in *L. reuteri* Prodentis group



Conclusion

- *L. reuteri* Prodentis chewing gums have a beneficial effect on oral malodour assessed by organoleptic scores. The results indicate that the probiotic gum affect bacteria that produce malodourous compounds other than volatile sulphur compounds (VSCs)

Facts

- Study design: randomized, double blind, placebo-controlled cross-over clinical trial
- Subjects: 25 adults
- Dosage: 2 gums daily ($4x10^8$ CFU/day)
- Duration: run-in and washout periods, interspersed by two intervention periods of 14 days each
- Primary endpoints: organoleptic scores (0-5) by a certified test panel, concentration of VSCs measured with a halimeter, concentration of VSCs after a cysteine rinse

Further reading

- Teughels W et al. Clinical and microbiological effects of *Lactobacillus reuteri* probiotics in the treatment of chronic periodontitis: a randomized placebo-controlled study. J Clin Periodontol. 2013;40:1025–1035
- Kraft-Bodi et al. Effect of probiotic bacteria on oral *Candida* in frail elderly. J Dent Res. 2015;94(9 Suppl):181S-186S

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