Caries still remains the most significant type of dental disease.\(^1\)

The risk factors for caries are, in particular, sugary foodstuffs and inadequate plaque removal.\(^2,3\) There are, however, other factors that can significantly increase the risk of caries.

Demographic changes have resulted in an aging population. As we age, the amount of medication we take also increases. Numerous medications that are taken on a day-to-day basis and other factors, such as stress and certain illnesses, can result in a reduction of saliva.\(^4-6\)

**Examples of medication that can lead to a reduction of saliva are:**

- Antidepressants
- Betablockers and other antihypertensive agents
- Antihistamines (antiallergic medication)
- Painkillers
- Antibiotics

When saliva is reduced, the natural remineralisation process from saliva is restricted and the risk of caries is increased. There is too little calcium phosphate from the saliva.\(^3\)

**Karex with hydroxyapatite**

Hydroxyapatite is the natural building block of dental enamel and is therefore of particular interest in oral care as a biomimetic agent.\(^7\)

Karex with hydroxyapatite offers protection using an anti-caries active complex:

- Regeneration and protection of the enamel\(^8-15\)
- Modern biofilm management\(^15\)
- Plaque removal\(^17\)

Karex contains hydroxyapatite and is therefore effective even when saliva is reduced. This is because the active ingredient is already present in mineral form and does not have to be formed from the saliva through remineralisation processes.\(^10\) Moreover, Karex with hydroxyapatite repairs microfine defects in the tooth surface and forms a protective layer to prevent caries.

**The latest clinical study confirms effectiveness in caries prevention**

A successfully concluded randomised and placebo-controlled study of a caries-active risk group confirmed the effective protection against caries.\(^18\)

The hydroxyapatite toothpaste was just as effective as a toothpaste with amine fluoride/stannous fluoride, the “gold standard” for caries prophylaxis. Based on a risk group of patients undergoing orthodontic treatment at five German university hospitals, it was successfully demonstrated that a hydroxyapatite-based toothpaste is just as effective in terms of caries prophylaxis as a reference product containing amine fluoride and stannous fluoride (in total 1400 ppm fluoride). The study comprised a total of 150 subjects. The caries was assessed using the modern International Caries Detection and Assessment System (ICDAS).\(^19\)

**Conclusion:**

**Karex with hydroxyapatite:**

*Oral care for modern caries prevention.*

More information: [www.karex.de](http://www.karex.de)
References


Karex toothpaste with hydroxyapatite

Daily tooth brushing with Karex toothpaste helps to promote the regeneration of weakened enamel areas and the formation of a protective layer. Due to its saliva-neutral pH, Karex is particularly gentle on the teeth. Moreover, Karex toothpaste cleans the teeth thoroughly and effectively combats bacterial dental plaque. Use: 2 x daily for 2 minutes.

Ideal addition: Caries prophylaxis in the form of a mouthwash

The Karex mouthwash boosts the effectiveness of the Karex toothpaste. Thanks to its gel-like consistency, the mouthwash adheres well to the tooth enamel to promote its regeneration. With its active complex of hydroxyapatite, zinc and xylitol, it has an antimicrobial effect and also prevents dental plaque.