

# Less CHX—greater effect

## A new generation of mouthwashes is changing therapy

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**Chlorhexidine digluconate (CHX) is considered the gold standard among oral antiseptics, but its use comes with a number of side effects. Consequently, there is growing demand for alternative formulations. One antiseptic mouthwash seems to tick the box: Curaprox Perio plus regenerate. A recent study by researchers at the University of Bern in Switzerland has shown that Perio plus regenerate achieves a strong antibacterial effect with less CHX, thanks to a unique blend of additives.**

### More than the sum of its parts

CHX has been the go-to oral antiseptic for treating oral disease caused by biofilm. However, its use often results in tooth discoloration, taste disturbance and irritation of the oral mucosa. Its bactericidal effect can also disturb the symbiosis of oral microflora in higher doses or with prolonged use. Some mouthrinses have tried incorporating so-called anti-discoloration systems to limit CHX staining, but a number of studies have shown that these tend to interfere with CHX's activity in the mouth. In a new approach, Swiss oral health brand Curaprox has developed Perio plus regenerate. The percentage of CHX in this mouthwash has been limited to 0.09% in order to minimise side effects, and a number of additional active substances boost its overall substantivity and antibacterial activity.

In a recent in vitro study, researchers from the University of Bern compared the effect of different mouthwash solutions, including Curaprox Perio plus regenerate, against 13 oral bacteria found in biofilm associated with caries and periodontal disease. The researchers found that Perio plus regenerate's formulation was active against all 13. With only 0.09% CHX, Perio plus regenerate was able to significantly reduce biofilm formation and established cariogenic

biofilm. Interestingly, the mouthwash was able to slow down biofilm formation better than were CHX mouthwashes with a higher percentage of CHX but without additives.

### A change in chemistry, a change in mentality

The high efficacy of Perio plus regenerate against biofilm can only be explained by the synergy of its ingredients. Citrox®, an organic bioflavonoid mix, reduces the viability of biofilm and has a broad antibacterial effect. Xylitol inhibits biofilm formation, and hyaluronic acid promotes wound healing and boasts anti-inflammatory properties. Lastly, poly-L-lysine boosts the substantivity of all active compounds in the mouth.

"Many dentists still believe more is more. But in recent years, there has been growing concern about the impact of high doses of CHX on the oral microbiome," Curaprox owner Ueli Breitschmid explained. For over 60 years, the Swiss brand has been unique in its mission to move dentistry away from restoration and to promote holistic oral health products and concepts. "Supplementing a lower dose of CHX with additives allows dental professionals to use a lower dose of CHX right away. Our goal is a mouthwash with the effect of a classic 0.2% CHX mouthwash, only with fewer side effects.

Less CHX means less damage to the microbiome and a healthy symbiosis of the oral microflora."

### Brushing remains key

All mouthwashes used in the study had a relatively low effect on already established periodontal biofilm. According to the researchers, this confirms the general guidelines that mouthwash treatment during periodontal therapy should always go hand in hand with scaling and root planing. Chemical therapy is an adjunct to mechanical biofilm removal. Instructing patients on correct brushing with a manual brush and calibrated interdental brushes remains key.

The study by  
Jeyakumar et al. can be  
accessed at  
[www.bit.ly/3B3gCgT](http://www.bit.ly/3B3gCgT)  
or scan the QR code:

