

Effect of Different Mouthrinses on Salivary Bacteria *in Vivo*

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Objectives: The aim of this *in vivo* study was to investigate the antibacterial effect of three different mouthrinses and an oral spray on the salivary flora.

Materials and Methods: Five adult volunteers performed a single wash/ spray of (Chlorhexamed Forte, Biorepair, Elmex Kariesschutz, Theranovis oral spray). Samples of saliva were collected under baseline conditions and at 30 s, 1, 6 and 12 h after performing the tested mouthrinses/ oral spray. The samples were centrifuged, bacterial pellets isolated. The pellets were microscopically examined by BacLight™ viability assay and transmission electron microscopic.

Results: CHX showed high level of antibacterial activity up to six hours. Biorepair and Elmex Kariesschutz have a similar or better immediate antibacterial potential as chlorhexidine, whereas after one hour an obvious recovery in the bacterial vitality was detected. However, Theranovis had the weakest antibacterial action on the salivary flora.

Conclusion: The results of the present study revealed antibacterial effects of all tested mouthrinses/ oral spray on the salivary bacteria. This study allows classification of the tested mouthrinses/ oral spray.