

Xylitol and Magnolia Bark for High Caries-Risk Patients - Dentistry Today

siteground

Salivary flow is a major host defense against caries, and chewing gum has been shown to enhance saliva production, which facilitates the clearance of fermentable carbohydrates and encourages the return of plaque pH. Xylitol has been shown to have both noncariogenic and cariostatic effects; therefore, a xylitol-containing chewing gum would be beneficial to a high caries-risk patient. Magnolia bark extract is known to have antimicrobial properties. Adding magnolia bark extract to xylitol-containing chewing gum could potentially show increased cariostatic effects compared to the currently marketed xylitol chewing gum. A study by Dr. Gulielmo Campus et al evaluated the effect of magnolia bark extract administered daily through a xylitol chewing gum on different variables related to caries and gingivitis in high caries-risk adults. The randomized, double-blind study involved 120 adult subjects with > 1 and < 4 carious lesions, a salivary *Streptococcus mutans* concentration 10⁵ CFU/mL (colony-forming units per milliliter), and bleeding on probing > 25%. Subjects were divided into 3 groups of 40: group 1 received chewing gum containing magnolia bark extract and xylitol, group 2 received only xylitol gum, and group 3 received sugar-free gum. Patients were instructed to chew for 5 minutes, 3 times a day. The study included a clinical examination, a saliva sample, and a plaque pH evaluation at baseline, 7 and 30 days of gum use, and 7 days after the end of gum usage. The study found a statistical difference in pH between groups 1 and 2 at 20 minutes and 30 minutes following a sucrose rinse. After 30 days of gum use, a significant difference in *S mutans* concentrations was noted between group 1 and the other 2 groups. However, 7 days after the end of gum use, a significant difference was found only between groups 1 and 3. Subjects from groups 1 and 2 showed a significantly lower bleeding on probing score at the end of the chewing period compared to group 3. The authors conclude that chewing gum containing magnolia bark extract and xylitol has beneficial effects on oral health, reducing salivary *S mutans* and controlling plaque pH, potentially reducing caries risk.

(Source: *Caries Research*. 2011, Volume 45, Number 4, pages 393 to 399)

We use cookies on our website to give you the most relevant experience by remembering your preferences and repeat visits. By clicking “Accept”, you consent to the use of ALL the cookies.