Investigating the sweeteners of current gums present in Iranian market

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Abstract

Background and Aims: Dental research has developed substantial evidence that dental plaque is the predominant etiological factor responsible for dental caries. Plaque deposits can be removed either mechanically or chemically. Although brushing the teeth with a toothbrush is a widely recognized technique for maintaining dental health, chewing gum has over the years been advocated as a possible excellent adjunct for cleaning the teeth. The purpose of this study was to investigate the properties of different gums present in Iranian market.

Materials and Methods: In this cross - sectional study, compounds of 11 gum species (sugar free gums, gums containing sugar) is investigated.

Results: gum ingredients include: gum base, sweeteners, flavouring, antioxidant, colour, glazing agent and emulsifier. The most common dietary polyols used in sugar-free chewing gum are Xylitol and Sorbitol. Most oral bacteria do not metabolise Xylitol and Sorbitol to form acid. While the main sweetenerin chewing gum containing the sugar is glucose.

Conclusion: sugar free gum can be effective in preventing dental caries.

Key words: gum, sweetener, dental caries