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The Effect of Artificial Sweeteners in Chewing Gum, Helpful or Harmful?

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Review of Literature

Objective/Aims: This review of literature was designed to analyze the effects of artificial sweeteners in chewing gum on the oral cavity. The intent was to recognize which formulations of artificial sweeteners in chewing gum lead to beneficial outcomes in the oral cavity and which formulations lead to harmful effects.

Methods: The review of literature analyzed and synthesized primary and secondary resources accumulated from PubMed. Multiple scholarly studies were filtered based upon meta-analysis, cross-sectional, and cohort studies. The following key terms were used: artificial sweetener, chewing gum, plaque, saliva, microbes, and oral health. A summation report was created based upon the relevant findings.

Results: Articles selected were published after 2014. Studies conducted revealed the artificial sweetener is able to be fermented in the oral cavity. The benefits of artificial sweeteners on hard and soft tissues in the oral cavity have been widely accepted in the last century. Research has revealed artificial sweeteners in chewing gum lead to beneficial outcomes in the oral cavity. Among the artificial sweeteners researched, xylitol was proven to have the most beneficial effects on the oral cavity through clinical studies. Although studies using artificial sweeteners show benefits to the oral cavity, the concentration of artificial sweetener required to yield all of the results are often not found within chewing gum.

Conclusion: This review of literature will assist the chewing gum population in recognizing which artificial sweeteners in chewing gum lead to beneficial outcomes in the oral cavity. The intent is to recognize which formulations of artificial sweeteners in chewing gum lead to beneficial outcomes in the oral cavity and which formulations lead to harmful effects.

Abstract

Introduction

Artificial sweeteners have become increasingly popular since they were developed in the 1870s. Saccharin, the first artificial sweetener discovered, was created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. Fahlberg spilled the compounds he created accidentally by Constantine Fahlberg. 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