Baking soda as an abrasive in toothpastes: mechanism of action and safety and effectiveness considerations

1. Which 1 of the following products was reported to have the lowest radioactive (or relative) dentin abrasivity (RDA) score?
   a. Arm & Hammer Peroxicare
   b. Crest Baking Soda & Peroxide
   c. Colgate Baking Soda & Peroxide
   d. Arm & Hammer Truly Radiant Bright & Strong

Stain removal and whitening by baking soda dentifrice: a review of literature

2. In a 12-week study by Koertge and colleagues of efficacy in stain removal and increasing whiteness, what were the findings regarding twice-daily brushing with baking soda dentifrices compared with a regular silica-based dentifrice?
   a. The silica-based dentifrice was more effective only in whitening.
   b. The silica-based dentifrice was more effective in both stain removal and whitening.
   c. The baking soda dentifrices were more effective only in stain removal.
   d. The baking soda dentifrices were more effective in both stain removal and whitening.

Effect of baking soda in dentifrices on plaque removal

3. Based on studies of Streptococcus mutans growth, what did the authors suggest is the lowest concentration of baking soda in dentifrice necessary for salivary concentration to achieve clinical antibacterial effects?
   a. 88%
   b. 55%
   c. 26%
   d. 17%

4. In a study comparing a baking soda-containing dentifrice to a triclosan-containing dentifrice, what results were reported for mean plaque scores after 4 weeks?
   a. 2.22-fold greater reduction for the baking soda group than the triclosan group.
   b. 1.12-fold greater reduction for the baking soda group than the triclosan group.
   c. 1.43-fold greater reduction for the triclosan group than the baking soda group.
   d. 2.59-fold greater reduction for the triclosan group than the baking soda group.

Baking soda dentifrice and periodontal health: a review of the literature

5. Which one of the following statements best summarizes the results of a comparison of the antimicrobial effect of a baking soda-peroxide dentifrice with that of other products?
   a. The baking soda-peroxide dentifrice had the greatest effect.
   b. The baking soda-peroxide dentifrice had an effect that was exceeded only by that of the essential oil mouthwash.
   c. The baking soda-peroxide dentifrice had an effect that was comparable with that of a stannous fluoride formulation and that of an essential oil mouthwash.
   d. The baking soda-peroxide dentifrice had an effect comparable with that of a sodium fluoride formulation.

6. In a double-blinded, placebo controlled randomized clinical trial examining healing after gingival flap surgery, what were the findings when a baking soda-peroxide formulation was compared with the fluoride dentifrice used as the study’s control intervention?
   a. The baking soda-peroxide formulation was associated with significantly better healing at days 7 and 14.
   b. The baking soda-peroxide formulation was associated with significantly better healing at day 7 but not at day 14.
   c. The baking soda-peroxide formulation and the fluoride dentifrice were not associated with significantly different healing at any time point in the study.
   d. The fluoride dentifrice was associated with significantly better healing at days 7 and 14.

Evidence for biofilm acid neutralization by baking soda

7. In a study involving 5 participants with hyposalivation who received sucrose rinse challenges, how long did salivary pH remain alkaline after the subsequent sodium bicarbonate rinse?
   a. 90 minutes
   b. 60 minutes
   c. 20 minutes
   d. 2 minutes

8. Which 1 of the following statements about a chewing gum study described by the author of this article is not correct?
   a. Chewing the gum that contained 2% baking soda 20 minutes after a sugar challenge (toffee) significantly increased the extent and rate of rise in interproximal plaque pH, compared with a sugar-free control gum.
   b. Increases in plaque pH that occurred after chewing the gum that contained 2% baking soda persisted for at least 20 minutes.
   c. Chewing the gum that contained 2% baking soda before a toffee exposure showed only a slight effect on the subsequent minimum pH, compared with the sugar-free control gum.
   d. Compared with sugar-free control gum, chewing gum that contained 2% baking soda resulted in significantly greater salivary flow rates.