Editorial

Chewing gum as a part of preventive dentistry? Who's kidding whom?

Throw away the fluoride! Who needs sealants? Toothbrush and floss are passé. Incredibly, sucrose-sweetened chewing gum, it is now claimed, has a role in preventive dentistry!

In my perhaps rather narrow-minded view of oral habits, gum chewing is just one tiny step above tobacco chewing — the one perhaps marginally less disgusting than the other. Additionally, neither is exactly a habit that should evoke visions of oral health, but the Wm Wrigley Jr Company, the world's leading manufacturer of chewing gum, has been feeding the profession and the public the theory that gum chewing is actually healthy. "Chewing gum. Think of it as a part of preventive dentistry," scream the Wrigley advertisements.

I was reminded of the misleading advertisements that I have seen over the past few years by a short informational piece appearing in the November 23, 1991, issue of the *British Dental Journal*. On a page titled "Trade News" it was stated: "Following the success of a pilot advertising campaign earlier this year, highlighting the dental health benefit of chewing sugar-free gum, The Wrigley Company has extended the campaign. . . . [C]hewing . . . [gum] for 20 minutes after eating stimulates saliva to neutralise the harmful plaque acid which causes tooth decay. . . ."

Who is Wrigley trying to fool? Is the dental profession so gullible as to accept this clinically unsupported claim? The manufacturer's claims are built on a study in which tiny electrodes were used to measure plaque pH in vivo. It is true that after chewing gum following a meal there is a measurable rise in pH toward neutrality. But the claim that plaque pH remains high after cessation of chewing gum is apparently not reproducible. After the individual stops chewing the gum, the plaque pH will again fall into the danger zone for hard tissue demineralization.

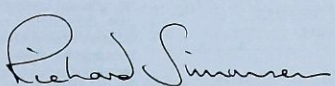
The carbohydrates that provide the fuel for the acid-producing bacteria in interproximal plaque do not just go away after 20 minutes. While salivary stimulation from chewing gum is a transient benefit, there is absolutely no evidence to show that this will have any effect whatsoever on the incidence of caries. Plaque must be removed, and chewing presently available gum will not accomplish interproximal plaque removal. In fact, use of sugared gum is potentially harmful by making available additional fermentable carbohydrates. Not surprisingly, no mention of sugar-free gum is made by Wrigley in their recent advertisements. Maybe this has something to do with the fact that their product line consists primarily of chewing gums that contain fermentable sugars.

There is a real danger to public health in promoting unsubstantiated techniques of caries prevention. By encouraging the chewing of sugared gum after meals, instead of promoting accepted preventive techniques, such as brushing and flossing, the Wrigley Company may actually be promoting harmful habits.

It is impractical and inadvisable to recommend the use of chewing gum for caries prevention. The Wm Wrigley Jr Company should retract, not expand, their advertising campaign based on the "dental health benefit" of chewing gum until a clinical study has documented that a caries-prone population that chews sugared gum after every meal develops fewer carious lesions than does a matched population that does not chew any gum. Without such a study the Wrigley Company is, at best, misleading the profession and the public.

While it should be expected that the primary goal of any business is to sell a product, corporate profits must remain a secondary goal to that of protecting the public health.

Chewing gum as a part of preventive dentistry? Prove it.



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