SODA POP AND YOUR TEETH

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Soda pop has become part of the American pop culture and diet.

In the '50s, the typical soda pop serving size in a fast food outlet was 6.5 oz. By the '60s it was 12 oz, and in the '90s it ballooned up to 20 oz. Today, you can find it in 42 oz. The consumption of sodas in the United States has increased in alarming proportions and crosses all demographic boundaries from children to adults. This has created a public health crisis, which has been recognized by a number of professional associations.

Recently, the American Academy of Pediatrics published a position paper to inform health care professionals, school personnel and parents about the significant danger posed by the ever-increasing amounts of soda pop consumed by children and teenagers. Between 60-85% of school-age children consume one or more than one serving of soda pop per day. At least 20% of them consume four sodas per day, and some teenagers drink as many as 12 cans a day.

The potential ravages of soda pop caries (cavities) or enamel erosion should not be underestimated. In one well documented case, a teenager who grew up drinking fluoridated water and brushing twice daily with fluoride toothpaste developed caries in every one of his erupted teeth. His diet analysis revealed that he daily consumed 6-12 cans of soda pop.

One of my adult patients in his 50's needed to have 28 crowns, as he had lost most of the enamel of all his teeth. A thorough diet analysis revealed that he was addicted to soda pop and was drinking 20 cans a day.

Enamel (90% mineralized) is the hardest substance in the body. It protects the crowns of the teeth. However, it is susceptible to demineralization from acid. Acid is produced when bacteria colonizes the tooth surface and metabolizes carbohydrates. This process leads to the development of tooth decay in the enamel and dentine.

Soda pop has emerged as one of the most significant dietary sources of acid capable of producing demineralization of the enamel. Many brands of soda pop also contain sugars that are fermented by bacteria that produce acid by-product. It also appears that soda pop contains other ingredients that produce demineralization independent of its acid content or fermentable sugars

Soda pop represents a double threat to the enamel: its sugar content and its role in sustaining bacterial growth and acid by-products. Acid is capable of producing demineralization of the enamel. Depending on the brand, soda pop may contain carbonic, phosphoric, malic, citric and tartaric acid, and all have an acidic PH.

Repeated exposure to these acids produces erosion and demineralization of the enamel, which will produce hypersensitivity to air, cold and heat – and eventually decay.

One of the additional problems with the increase in soda pop consumption is that it leads people into drinking less milk, which leads to a higher incidence of demineralization and caries. Milk contains calcium lactate, which stimulates remineralization of the enamel.

The best thing is to stay away from sodas, but if you cannot, here are some tips that will help preserve the enamel of your teeth.

1. Drink only a small-size soda. Once you've finished, make sure to drink water or rinse your mouth with water. This will help remove the coat of sugar on your enamel.

2. Drink the soda through a straw, as this creates minimum contact with the teeth.

3. Do not hold and swish the soda in your mouth, it increases the exposure to the acid.

4. Use of mouthwash containing fluoride reduces the incidence of dental caries and stimulates remineralization of the enamel. There are numerous over-the-counter mouthwash rinses with 0.05% sodium fluoride available, as well as prescription 0.2% sodium fluoride gel or toothpaste for high-risk patients.