

Improper consumption of acidic foods could lead to destroyed enamel

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Fruit, yogurt, citric and soft drinks, may seem like harmless snacks and beverages, but improper consumption and overuse may lead to devastating and permanent damage to teeth. It's known as tooth erosion, the break down of tooth structure caused by the effect of acid on the teeth that leads to decay.

According to David Bartlett, BDS, PhD, who will lead a discussion at the Academy of General Dentistry's 55th annual meeting in San Diego, June 27-July 1, 2007, titled, "Acid Erosion-Why is it Important to My Patients?", "Early diagnosis and prevention of the effects of tooth erosion are fundamental to keeping teeth healthy for life."

"Sipping or holding acidic drinks in the mouth before swallowing increases the risk of erosion on dental enamel," says Dr. Bartlett. Dental enamel is the thin, outer layer of hard tissue that helps maintain the tooth's structure and shape while protecting it from decay.

Soft drinks, which contain acids, break the tooth surfaces. These acids also damage tooth enamel over time by dissolving the mineral structure of teeth, thinning the teeth. Eventually, because of repeated exposure to acid, the tooth's enamel will lose its shape and color and as the damage progresses; the underlying dentin, (which is the tissue that makes up the core of each tooth), becomes exposed causing the teeth to look yellow.

To prevent tooth erosion, Dr. Bartlett advises patients who eat or drink an acidic food or beverage to wait at least 20 minutes before brushing

the teeth so as not to destroy the weakened enamel. He also suggests eating acidic foods within five minutes, instead of snacking on them throughout the day, and eating these foods just during meal times in order to minimize the amount of time the acid is on the teeth.

Also, frequently consuming and continual snacking of foods with a low pH (potential of hydrogen) value, such as fruit juices, pickles, fresh fruit, yogurt, honey and raisins can lead to irreversible dental erosion. It is important to also beware of habits such as lemon-sucking and swishing soda in the mouth. Doing this extends the amount of time that enamel and dentin are exposed to the acids and can increase the structural damage. But eating fruit as part of a balanced diet is good. Dr Bartlett says, "It's not what you eat and drink that is important its how you consume acidic food".

Dr. Bartlett also encourages patients to talk to their dentist about the use of dentin bonding to help prevent tooth erosion, a procedure he will share with attendees during his course at the AGD's annual meeting. Dentin bonding is when the dentist paints a very thin layer (about the thickness of plastic cling film) which is painted on the surfaces of teeth showing signs of erosion. "Together, with dietary advice and daily desensitizing toothpaste, the aim is to prevent and treat early or moderate signs of erosion on the teeth," says Dr. Bartlett. Early signs of tooth erosion consist of dentin hypersensitivity. In other words, if hot or cold foods and beverages cause pain or sensitivity this is an indication of tooth erosion. Dentists may also recommend daily use of an OTC fluoridated anti-hypersensitivity toothpaste with a neutral pH to help re-harden softened tooth enamel.

Source: Academy of General Dentistry

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