

Prevention of Dental Caries

Oral hygiene care for your infant: Starting a supportive homecare routine at infancy will result in positive oral hygiene throughout life. Infants are not born with bacteria that cause cavities. Those bacteria can be transferred by sharing utensils, cups, straws, pacifiers. Always wipe out your infant's mouth with a clean damp cloth after feedings and visit a dentist as soon as the first tooth appears.

Fact: Streptococcus Mutans (a cavity causing bacterial species) is the most common oral bacteria found on heart valves and coronary arteries. They invade the artery lining tissues; responsible for bacterial endocarditis, infections of the heart and valves.

Risk Factors for caries include:

- More than one area of decalcification/demineralization (white spots)/enamel hypoplasia
- Current decay condition in caregiver and child
- Decay/restorations history in caregiver and child
- Radiographic caries
- Presence of orthodontic appliances
- Dietary habits/ Snacking between meals
- Salivary flow
- Oral hygiene habits
- Plaque presence/Gingivitis
- Current bacterial condition
- Frequency of dental visits
- Medications
- Medical conditions

Oral Hygiene Habits: Everyone has a thin layer of bacteria on their teeth which is called biofilm. This biofilm is made up of different microorganisms meshed together in a sticky film called plaque. It adheres to the teeth immediately after brushing, thus showing the importance of brushing and flossing your teeth 2-3 times daily.

There are many products on the market for preventing caries and restoring lost minerals from dental plaque.

Dietary Habits: Diet, defined as the combination of foods consumed, may impact caries risk, soft tissue health, and responses to injury and infection. Nutrients are essential for growth, maintaining tissue health, repairing injured tissue, and providing energy for daily activities. Dental caries (cavities) occur when acid, produced by oral microorganisms, dissolve all parts of the tooth (enamel, dentin, and cementum). The acidity level of a healthy mouth has a pH of 6.75. Every time we eat or drink, the pH in the mouth becomes more acidic dropping it below 5.5 (which is when enamel lesions occur.) Foods that cause the pH of interproximal (in between) plaque to fall below 5.5 include: apples, bananas, beans, bread, cooked

carrots, most cereals, milk (white and chocolate), soda, crackers, cream cheese, Jell-O, grapes, oatmeal, oranges, pasta, peanut butter, chips, raisins, rice, and tomatoes. Although some of these foods can be great for your body, these foods contain a lot of sugar and acid. It will in turn start to destruct the tooth and its surrounding parts. Reduce snacking in between meals to avoid imbalanced pH. Food supplements containing probiotic bacteria and alkaline foods can also help reduce the incidence and severity of dental caries. There are products on the market that can reduce the risk of caries when used properly.

Basic Bites: Sugar-free soft chew that neutralizes the pH in the mouth and increases salivary flow.

Xylitol: Xylitol is a natural sugar from the birch tree. It works in 3 ways: it prevents bacteria from metabolizing into acid, it reduces bacterial growth, and increases salivary flow.

Fluoride: Fluoride is a mineral that can also help strengthen teeth and inhibits production of acids. Topical fluoride is applied to the erupted teeth by using toothpastes, rinses, or gels.

Calcium and Phosphate: Remineralization is a process where calcium and phosphate are continuously deposited into weakened enamel. It occurs naturally in calcium and phosphorus rich foods. Examples of calcium rich foods are leafy green veggies, low fat cheese, milk and yogurt. Phosphorus rich food include whole wheat bread, low fat cheese, almonds and eggs.

Baking Soda (sodium bicarbonate): has a mild abrasive action that helps remove plaque when it is used as a toothpaste. Baking soda neutralized the pH level in the mouth, resulting in a more basic oral environment. Baking soda has also been shown to facilitate the remineralization of enamel. Other benefits of baking soda include natural whitening of the teeth and promoting healthy gingival tissue (gum tissue)

Coconut Oil: New research has shown that coconut oil can decrease plaque accumulation. It can also be used as a natural teeth whitening agent.