The Importance of Water in Decrease Rate of Caries in Oral Mouth
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ABSTRACT
In industrialized societies, enamel caries affects the vast majority of individuals, particularly up to the age of 20 years, where after its incidence is reduced. Root-surface caries is becoming a problem in the elderly due to gingival recession exposing the vulnerable cement to microbial colonization. Dental caries can be defined as the localized destruction of the tissues of the tooth by bacterial action. Cavities begin as small demineralized areas on the surface of the enamel, and can progress through the dentine and into the pulp. Demineralization of the enamel is caused by acids, and in particular lactic acid, produced from the microbial fermentation of dietary carbohydrates. Lesion formation involves dissolution of the enamel and the transport of the calcium and phosphate ions away into the surrounding environment. This initial stage is reversible and demineralization can occur, particularly in the presence of fluoride.

Keywords: Oral Mouth, Caries, Teeth decay, Dental Care..
INTRODUCTION:
Drinking water with fluoride (called “nature’s cavity fighter”) is one of the easiest and most beneficial things you can do to help prevent cavities that caused by a wide variety of oral bacteria, but only a few specific species of bacteria are believed to cause dental caries: Streptococcus mutants and Lactobacillus species among them so the tooth surface normally loses some tooth mineral from the action of the acid formed by plaque bacteria after ingestion of foods containing Fermentable carbohydrates. This mineral is normally replenished by the saliva between meals. However, when fermentable foods are eaten frequently, the low pH in the plaque is sustained and a net loss of mineral from the tooth occurs. This low pH selects for aciduric organisms, such as S mutants and lactobacilli, Which (especially Streptococcus mutants) store polysaccharide and continue to secrete acid long after the food has been swallowed accordingly the patient will feel pain when caries approaches the tooth pulp and the gums detach from the teeth as a result of an inflammatory response to plaque which is called Periodontal disease when the teeth loss of periodontal tissue the pocket will forming and loosening occur so the patient may loss his teeth.
Dental decay occurs at discrete sites on the surface of the enamel. Progress through the enamel is usually slow because of the remineralizing action of the saliva, and is asymptomatic. When decay spreads into the dentin, the process accelerates, most likely because the very low pH that can arise in this semi closed environment denatures the collagen scaffold that holds the hydroxyapatite salts in
place and rapidly solubilizes them. When the dentinal decay approaches the innervated tooth pulp, the pain can be intermittent or continuous, and dull or excruciating. Pain is the chief complaint of the patient.

**Prevention:**

Thorough cleaning and rinsing with water fluoridation apparently selects for the more desirable bacterial types, such as S sanguis and S mitis, which are capable of rapidly colonizing the tooth surfaces. S mutants presumably do not have an opportunity to become dominant, because the frequent debridement neutralizes its ability to be selected for by the low pH values that characterize an undisturbed plaque. Also, the 5% fluoride paste has an immediate bacteriostatic effect on the plaque organisms.

**To prevent tooth decay:**

Brush your teeth at least twice a day with fluoride-containing toothpaste. Preferably, brush after each meal and especially before going to bed. Clean between your teeth daily with dental floss or interdental cleaners. Rinse daily with a fluoride-containing mouthwash. Some rinses also have antiseptic ingredients to help kill bacteria that cause plaque.

Eat nutritious and balanced meals and limit snacks. Avoid carbohydrates such as candy, pretzels and chips, which can remain on the tooth surface. If sticky foods are eaten, brush your teeth soon afterwards. Check with your dentist about use of supplemental fluoride, which strengthens your teeth. Ask your dentist about dental sealants (a plastic protective coating) applied to the chewing surfaces of your back teeth (molars) to protect them from decay. Drink fluoridated water. At least a pint of fluoridated water each day is needed to protect children from tooth decay. Visit your dentist regularly for professional cleanings and oral exam.

Children and adults benefit from fluoride use. Fluoride strengthens developing teeth in children and prevents tooth decay in both children and adults. Toothpastes and mouth rinses contain fluoride. Fluoride levels in tap water may not be high enough without supplementation to prevent tooth decay. Contact your water utility to determine the level for your area. Talk with your dentist about your fluoride needs.

Ask if fluoride supplements or a higher strength, prescription fluoride product is necessary for you.

Brush your teeth at least twice a day (morning and before bed time) and floss at least once a day. Better still, brush after every meal and snack. These activities remove plaque, which if not removed, combines with sugars to form acids that lead
to tooth decay. Bacterial plaque also causes gum disease and other periodontal diseases.

Antibacterial mouth rinses also reduce bacteria that cause plaque and gum disease, and fluoride mouth rinse can help prevent tooth decay.

**PERSONAL HABITS:**

Muslims as I clinically noticed, most of them have a low percentage of dental decay among the other cultures due to they are rinsing and cleaning their mouth five times per a day each time three times which mean fifteen times per a day rather than brushing their teeth so the adding water rinsing to our daily oral care routine is one of the fastest and most effective paths available to healthier gums and teeth.

**CONCLUSION:**

Four Steps to a Healthy Mouth

Like everyone else, people with developmental disabilities can have a healthy mouth if these four steps are followed:

1. Brush every day.
2. Water rinsing every day.
3. Floss every day.
4. Visit a dentist regularly.

**Recommendation:**

Brushing and flossing every day and seeing the dentist regularly can make a big difference in the quality of life of the person you care for. If you have questions or need more information, talk to your dentist.

**References:**

1. Adriaens, P. A., Loesche, W. J. and De Boever, J. A. (1986) Bacteriological study of the microbial flora invading the radicular dentine of periodontally diseased caries-free human teeth, in Borderland between Caries and Periodontal Disease III. (eds. T. Lehner and G. Cimasoni) Editions Médecine et Hygiène, Geneva, pp. 383–90.

2. Bowden, G. H. W. (1990) Microbiology of root surface caries in humans. Journal of Dental Research, 69, 1205–10.CrossRef
3. Boyar, R. M. and Bowden, G. H. (1985) The microflora associated with the progression of incipient lesions in teeth of children living in a water fluoridated area. Caries Research, 19, 298–306. CrossRef

4. Dawes, C. and Ten Cate, J. M. (eds.) (1990) Fluorides: Mechanisms of action and recommendations for use. Journal of Dental Research, 69, 505–835.