

Four Dental Conditions – Prevention Summit Primer

This document is an overview of four common dental conditions that will be discussed during the Prevention Summit in November 2013. This document can assist non-dental providers in understanding the basic tenets of these dental conditions, how oral health is an important component of overall health and how prevention practices can help patients manage their disease.

Dental Decay: Dental “caries” (or cavities) happens when certain bacteria in plaque (material that is present in the mouth) utilize dietary sugars to produce acid, which gradually erodes the tooth enamel and produces a hole or cavity. Efforts to prevent caries include minimizing dietary sugars, placing sealants on the chewing surfaces of permanent teeth, frequent brushing and appropriate use of fluoride.

Decay on a single tooth can eventually erode into the pulp (or nerve) of the tooth. Because of the infective nature of tooth decay, bacteria can spread from the tooth pulp to the rest of the body producing serious facial infections leading to swelling, toxicity and sometimes death. Chronic dental infections can compromise the treatment of patients with comprehensive medical conditions, including diabetes, hypertension, renal issues or cancer treatments.

Periodontal Disease: Also known as “gum disease,” periodontal disease occurs when plaque film missed during home hygiene practices calcifies and begins to weaken the bony structures supporting teeth. Teeth loosen as inflammation progresses (due to certain bacteria in the plaque), especially in smokers. Gums may become painful and bleed easily, which eventually leads to a chronic, long term infection, which increases systemic inflammatory markers. Untreated periodontal disease can complicate otherwise healthy pregnancies, diabetic treatment, and cardiac surgery, to name a few examples. Periodontal disease can be prevented with appropriate dental cleanings, antimicrobial strategies and effective home care practices.

Facial Trauma Injuries: This category includes sports injuries, such as concussions during football. Some studies show that custom fitted mouthguards can reduce concussions by significant percentages. Other sports injuries, such as tooth breakage and avulsion, can be prevented by the appropriate use of mouthguards. Facial injuries can also result from accidents and abuse.

Oral Cancer: Oral cancer remains one of the most understood and poorly treated conditions. Five year survival rates for oral cancer have not improved in the last 40 years and the human papilloma virus is now strongly linked. The current case of actor Michael Douglas is one example of oral cancer with a link to HPV. Smoking and use of smokeless tobacco continues to be strong predictors of oral cancer risk development.
