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American Academy of Periodontology

The end of daylight savings time may harm your oral health

Effect of vitamin D and calcium on periodontitis

Chicago – Beginning in 2007, daylight savings time will be extended by almost a month. This additional amount of daylight may also help extend the life and health of people's teeth and bones. That's because vitamin D, also known as the "sunshine vitamin," is made by the body through casual and minimal sun exposure. Vitamin D is just as essential as calcium for healthy teeth and bones according to a paper that was published in the September issue of the Journal of Periodontology.

"Both vitamin D and calcium counteract deficiencies and reduce bone resorption," said Dr. Charles Hildebolt, Department of Radiology, Washington University School of Medicine, St. Louis, MO. "Numerous studies indicate that vitamin D and calcium deficiencies result in bone loss and increased inflammation. Inflammation is a well recognized symptom of periodontal diseases, which is why it has been suggested that calcium and vitamin D deficiency may be a risk factor for periodontal diseases."

Research shows that the best means of obtaining the required amount of vitamin D is from sunshine. According to the National Institutes of Health, season, geographic latitude, time of day, cloud cover, smog and sunscreen affect ultraviolet ray exposure and vitamin D synthesis. Ten to 15 minutes of sun exposure at least two times per week to the face, arms, hands or back is usually sufficient to provide adequate vitamin D. People who live in an area with limited sun exposure may want to eat foods fortified with vitamin D such as milk, eggs, sardines and tuna fish.

"We are not encouraging people to forego their sun protection, nor to spend prolonged periods of time in the sun" said Vincent J. Iacono, DMD and president of the American Academy of Periodontology. "According to the American Academy of Dermatology, there is no such thing as a total UV block. Even the most effective sunscreens currently on the market let through enough UV to allow for adequate vitamin D formation." Periodontal diseases are bacterial infections that, if left untreated, may cause damage to the bone

and even tooth loss. A number of infectious diseases have been linked with low levels of vitamin D, and it has been demonstrated that vitamin D can suppress proinflammatory cytokine production. (Proinflammatory cytokines are molecules that have destructive effects throughout the body.)

"Periodontal disease increases the production of cytokines, but it has been demonstrated that vitamin D can suppress cytokine production, and possibly decrease the risk of periodontal disease," explains Hildebolt.

"Further research is needed to define the health risks associated with inadequate levels of vitamin D and calcium intake and how they affect periodontal diseases," said Iacono. "Until we have further information, it is prudent for patients to talk to their healthcare providers about the possibility of taking vitamin D and calcium supplements."

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The American Academy of Periodontology is an 8,000-member association of dental professionals specializing in the prevention, diagnosis and treatment of diseases affecting the gums and supporting structures of the teeth and in the placement and maintenance of dental implants. Periodontics is one of nine dental specialties recognized by the American Dental Association.

EDITOR'S NOTE: A copy of the study "Effect of Vitamin D and Calcium on Periodontitis" is available to the media by contacting the AAP Public Affairs Department at 312/573-3244. The public and/or non-AAP members can view a study abstract online, and the full-text of the study may be accessed online for $20.00 at http://www.joponline.org/