NEWS

Sleep deprivation

Affects facial appearance



In order to investigate the facial cues by which individuals recognise that someone is sleep deprived, the researchers at the Karolinska Institute in Stockholm photographed the faces of five men and five women after eight hours of normal sleep and after 31 hours of sleep deprivation. Afterwards, 20 male and 20 female participants with an average age of 25 rated the photographs with respect to fatigue, facial cues and sadness.

Overall, the faces of sleep-deprived individuals were perceived as having more wrinkles or fine lines and droopier corners of the mouth, the researchers reported. The participants also stated that those who had slept less had droopier eyelids, redder eyes, eyes that were more swollen, darker circles under the eyes and paler skin. In addition, sleep-deprived individuals appeared sadder than after normal sleep, and this apparent sadness was related to looking fatigued.

"Since facial regions, such as the eyes and mouth in particular, contain a lot of information on which humans base their interactions with each other, how fatigued a person appears may affect how others behave toward him or her," said Tina Sundelin, lead author and a doctoral student at Stockholm University's Department of Psychology.

The study, titled "Cues of fatigue: Effects of sleep deprivation on facial appearance", was published in the September issue of the *SLEEP journal*.

American Dental Association

Statement on Regular Dental Visits



To maintain optimal oral health, the American Dental Association (ADA) recommends regular dental visits, at intervals determined by a dentist. In light of a new study published in the Journal of Dental Research titled "Patient Stratification for Preventive Care in Dentistry," the ADA wants to remind consumers that the frequency of their regular dental visits should be tailored by their dentists to accommodate for their current oral health status and health history. In the June 10 issue of the journal, researchers from the University of Michigan School of Dentistry explored the link between long-term tooth loss and frequency of preventive dental visits in adults with and without three risk factors for periodontal disease: smoking, diabetes and interleukin-1 genetic variations.

The study concluded that individual risk factors help to dictate the frequency of cleanings needed per year to help prevent periodontal disease. Based on data analysis, researchers speculate that high-risk patients would likely benefit from more frequent dental visits, while low-risk patients may see the same benefits from only one cleaning per year. The key takeaway for consumers, underscored by this study, is that personalised oral care is a necessity for good dental health. The ADA encourages people to work closely with their dentists to identify any potential risk factors that would determine the need for and frequency of follow up visits to enhance the outcomes of preventive care.

For more information on the ADA's recommendations for healthy teeth and gums at every life stage, please visit mouthyhealthy.org.

Dental caries may

Prevent oral cancer

In order to test the association between dental caries and head and neck squamous cell carcinoma, researchers from the University at Buffalo examined the oral cavities of 399 patients diagnosed with primary head and neck squamous cell carcinoma between 1999 and 2007, and 221 healthy controls.

They observed that cancer patients had a significantly lower mean number of teeth with caries, crowns, endodontic treatment and fillings. However, they had more missing teeth compared with controls. After adjusting for age, sex, marital status, smoking status and alcohol use, the researchers found that the prevalence of head and neck squamous cell carcinoma was lower among participants with prevalent dental caries and more crowns.



Although the mechanism underling this inverse association between head and neck squamous cell carcinoma and dental caries is not fully understood by the scientists, the study suggests that lactic acid bacteria, which demineralize tooth structures, and their associated immune response may have a positive effect on the cancer cells.

According to the Centers for Disease Control and Prevention, dental caries is the most common chronic disease among children aged six to eleven years and adolescents aged twelve to 19 years in the US. It also affects the majority of adults, with nine in ten over 20 having some degree of tooth-root decay. More than 30,000 new cases of cancer of the oral cavity and pharynx are diagnosed each year. The study, titled "Dental Caries and Head and Neck Cancers," was published online on Sept. 12 in the *JAMA Otolaryngology*—Head and Neck Surgery journal.

Laser therapy could help

Relieve pain after orthodontic treatment

Many patients experience significant levels of pain or discomfort after the placement of separators before band placement to separate the molar teeth. Now, a team of Korean researchers has suggested that laser therapy might be an effective method of reducing such orthodontic pain.

The study included 88 patients who received elastomeric separators on the first molars. To determine whether low-level laser therapy (LLLT) would have an effect on the participants' perception of pain after separator placement, the patients were randomly assigned to a laser group, a light-emitting diode (LED) placebo group and a control group. After irradiation of the molars for 30 seconds every twelve hours for one week, significant differences in pain perception among the three groups were reported. The researchers observed that pain scores in the laser group were significantly lower than in the control group up to 24 hours after placement. However, no such effect was found in the LED group.

Thus, the scientists concluded that frequent LLLT may be an effective way to reduce orthodontic pain for the first day after separator placement. In addition, the researchers observed that the perception of pain was not significantly different based on age or sex. However, the effect of laser irradiation was more pronounced in male subjects.

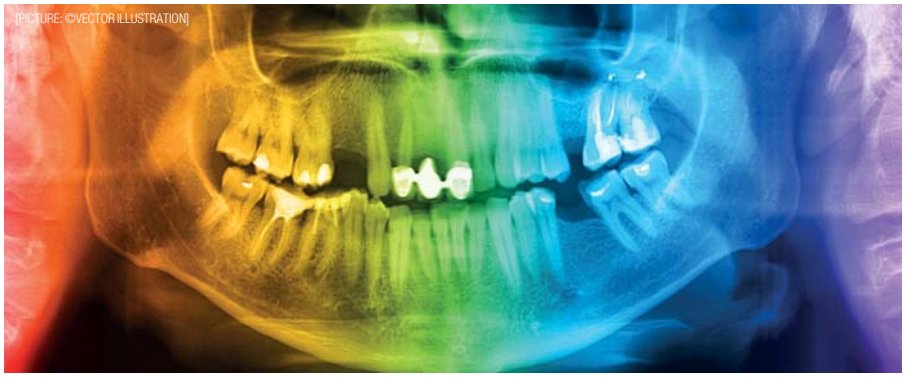


[PICTURE: ©KALCUTTA]

According to the study, the effect can mainly be attributed to the anti-inflammatory properties of the laser and its regenerative effect on neurons. The findings are in line with those of previous studies that have demonstrated that LLLT may increase the blood supply and promote healing of dental tissue. The study, titled "Effect of frequent laser irradiation on orthodontic pain", was published in the July issue of the *Angle Orthodontist journal*.

Pakistan introces

First oral diagnostic lab



[PICTURE: ©VECTOR ILLUSTRATION]

The scope of Oral Pathology has always been restricted to histopathology only. Now a wide range of oral diagnostic investigations are being brought to Pakistan and are being offered from this platform where saliva is being used to detect different pathologies.

Pathodont is the first laboratory and diagnostic center in Pakistan that is dedicated solely to oral health. In addition to providing maxillofacial and oral diagnostic services, Pathodont has introduced state of the art American Biolase laser technology in Pakistan for the first time. As a leader and a pioneer in providing diagnostic opportunities to maintain oral health, pathodont, a subsidiary of Health.net, is committed to enhance the oral health care of Pakistani Patients, providing diagnostic tests for different kinds of oral pathologies. The center offers complete management protocols, established according to the latest guidelines, for different oral pathologies, including the latest LLLT laser treatment for a wide range of maxillofacial and oral pathologies.

Award for

Statement on Regular Dental Visits



[PICTURE: ©SWAPAN PHOTOGRAPHY]

The International Association for Dental Research (IADR) has recognised a dental student for his research on the clinical effectiveness of mouthwash made from the bark of the neem tree, which used in traditional South-East Asian medicine. His study found that the plant-derived mouthwash is just as effective as conventional mouthwashes. As reported online by the *Myanmar Times*, Mg Ye Htut Oo, a final-year student at the University of Dental Medicine, Yangon, was awarded second place in a regional dental research competition. The prize was awarded during a meeting of the IADR's Asia Pacific divisions in Australia, New Zealand, China, Japan, Korea and South-East Asia that was held from 21 to 23 August in Bangkok.