Legal loopholes

Dentistry and cosmetic surgery are two fields that may be especially vulnerable to exploitation of legal loopholes concerning the administration of local anesthesia, according to the Australian and New Zealand College of Anesthetists. To address this issue, the medical body has called for tighter and uniform national regulation for administering sedation in these fields.

Changing taste

Caffeine is a powerful antagonist of adenosine receptors, which promote relaxation and sleepiness. Depressing the effect of the receptors may make people feel more awake, but a new US study has found that it also decreases their ability to taste sweetness—which makes food and drink seem less sweet and may trigger sugar cravings, the researchers concluded.

Women in dentistry

SYDNEY, Australia: The latest figures out of Australia show that, for the first time in the island continent’s history, there are more women working in dentistry than men. According to data from the Dental Board of Australia, 50.2 per cent of dental practitioners, including dentists and dental therapists, across the country are female. Additionally, of the 732 current members of the Australian Dental Association Victorian Branch, 410 are women and 322 men.

With its flexible hours, creativity and good pay, many women are choosing the profession over medicine. Speaking to Dental Tribune, President of the Australian Dental Association Victorian Branch Dr Susan Wise said, “There is now more diversity of dentists with respect to gender and ethnicity. Women are attracted to dentistry as a career, as it is possible to do part-time work and fit in bringing up young children. This is more difficult in many fields of medicine, law, accounting and architecture.”

Crown and go

Aiming to find a safer, more effective and faster treatment method to reduce the high prevalence of dental caries in children in New Zealand’s Whanganui district, a three-year study has set out to test an alternative method of treating caries, the Hall technique. Instead of removing the diseased tissue under anesthesia, in the Hall technique, dentists leave the decay as is and cement a small metal crown on the tooth.

“Hydroxyapatite crystallites are the fundamental units of enamel, each less than 10,000th the thickness of a human hair,” said co-author Prof. Peter Ungar from the University of Arkansas. “Most research on tooth wear to date has focused on effects at much larger scales, but we have to study enamel at this finer level to truly understand the nature of how the hardest tissue in our bodies resists wear and tear.” The study, titled “Enamel crystallite strength and wear: Nanoscale responses of teeth to chewing loads,” was published online on 25 October in the Journal of the Royal Society Interface.

Chewing causes microwear

The researchers observed that, at every level of pressure, scratching led to more damage than indentation, but both types of stress resulted in three different kinds of damage. Plucking occurred when the crystallites were separated from each other. Applying more pressure to the enamel led to deformation, or the bending and squeezing of the crystallites. At even higher levels of pressure, fragmentation resulted when the chemical bonds holding the crystallites together broke.

“Food leaves permanent traces on teeth. A team of international researchers has now examined these marks — or microwear,” she explains why.

When the crystallites together broke.

Pioneering dental research: Australian molecular biologist Prof. Eric Reynolds (middle) is this year’s winner of the Prime Minister’s Prize for Innovation.

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Health tooth produces a radiant smile. We are here to achieve this goal on a daily basis. It inspires us to search for innovative, economic and esthetic solutions for direct filling procedures and the fabrication of implants, fixed or removable restorations, so that you have quality products at your disposal to help people regain a beautiful smile.

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