Legal loopholes

Dentistry and cosmetic surgery are two fields that may be especially vulnerable to exploitation of legal loopholes concerning the administration of local anaesthesia, according to the Australian and New Zealand College of Anaesthetists. 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.

Hydroxyapatite crystallites are the fundamental units of enamel, each less than 1,000th 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.

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Women in dentistry

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.”

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.

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Food leaves permanent traces on teeth. A team of international researchers has now examined these marks—or microwear.