

Men's and women's

Teeth do not differ significantly

Several morphometric studies have proven sexual dimorphisms in human teeth, for example that women's teeth are smaller than men's teeth.

The German Society for Sex-Specific Oral and Maxillofacial Surgery (Deutsche Gesellschaft für geschlechterspezifische Zahn-, Mund- und Kieferheilkunde) recently reported on a study that found no obvious differences between male and female teeth.

The study was conducted by a research group headed by Prof. Ralf J. Radlanski from the Centre for Oral and Maxillofacial Surgery at the Benjamin Franklin Campus of Charité Universitätsmedizin Berlin. The researchers explored whether the sex of an individual could be identified if only the front teeth were considered. This was tested by having participants

evaluate 50 images of the anterior oral region of men and women aged between 7 and 75. The lip area was not shown. The participants included dentists, dental technicians, dental students and dental professionals, as well as 50 people who had no professional dental background.

The results overall demonstrated that sex could be detected in only about 50 per cent of the images. Although there are anthropological studies that claim to prove measurable morphometric differences, the study proved that those are not even visible to experts' eyes. While some tooth positions were correctly assigned by 70 per cent of the participants, others were wrongly assigned by the same number of participants. The assumption that women tend to have rounded teeth and men rather angular ones could not be confirmed by the study. Furthermore, contrary to what was expected by many of the participants, shape, size and colour of the canines were not meaningful indicators of sex. "In everyday practice, it is relevant whether the restoration fits the patient's face but not whether the patient is male or female," Radlanski said. "Recognisable typical male teeth or female teeth do not exist."



New massage method

Quadruples protection against tooth decay

Researchers at the University of Gothenburg's Sahlgrenska Academy have developed a method to massage the buccal surfaces with the fingertips, using toothpaste as a kind of lotion. They found that brushing teeth twice a day with high-fluoride toothpaste and additionally rubbing toothpaste onto the teeth increases fluoride protection by 400 per cent. Eight years ago, Duraphat (Colgate), a high-fluoride toothpaste, containing more than three times as much fluoride as standard toothpaste, was launched in Sweden. Available without prescription, it is primarily aimed at people with a high caries risk. The researchers at Sahlgrenska Academy have now evaluated the effect of this toothpaste. At the same time, they developed a new method that quadruples the level of protection from fluoride. In the

study, 16 volunteers tested a variety of brushing techniques, using either high-fluoride or standard toothpaste, and brushing either two or three times a day.

The researchers also tested a new method that involves rubbing toothpaste onto the teeth with a finger. "This massage method proved to be at least as effective as a third brushing in increasing the amount of fluoride in the mouth", Anna Nordström explained. "Rubbing the front of your teeth with toothpaste can be an easy way of giving your teeth a third shot of fluoride during the day, after lunch for example. However, this does not replace brushing with a fluoride toothpaste in the morning and evening but it's an additional procedure."

The study "Effect of a third application of toothpaste, including a 'massage' method on fluoride retention and pH drop in plaque" was published online in February in the *Acta Odontologica Scandinavica* journal.



Nobel Biocare celebrates

Dual anniversaries of osseointegration



Professor Per-Ingvar Brånemark made a surprise entrance on March 22 at the first Nobel Biocare scientific symposium of 2012 in Gothenburg, Sweden. While his dramatic entry to the symposium was largely unexpected, his presence was warmly welcomed. Sixty years have now passed since Professor Brånemark's remarkable discovery that titanium could integrate with bone. Thirty years later, in 1982, the discovery was acknowledged and confirmed at an epoch-making meeting of dental authorities in Toronto, Canada. In acknowledgement, this year we revisit Toronto on the last stop of Nobel Biocare Symposia 2012.

The Nobel Biocare Symposia 2012 continue on the road from Sweden to Toronto, with stops along the way in France, Ukraine, Germany and Italy. From all over the world, many more participants are expected to make the pilgrimage to these symposia during the current year. As they do so they will be paying tribute to the discovery that astonished the dental community and sparked new treatment opportunities in such disparate fields as dentistry and orthopedics. An estimated 1,000 attendees descended upon the hometown of osseointegration — Brånemark's Gothenburg — from March 21–23 to celebrate the two anniversaries of osseointegration. For more information please visit <http://www.nobelbiocare.com/symposia2012>.

EAO revises guidelines for

X-rays in implant dentistry

The European Association for Osseointegration (EAO) has updated its guidelines on the use of diagnostic imaging in implant dentistry by extending them to cone-beam computed tomography (CBCT). Their aim is to optimise both conventional radiography and new procedures and to address the As Low As is Reasonably Achievable principle (ALARA).

The association approached the revision of its 2002 guidelines after SEDENTEXCT, a collaborative EU research project on the sound and scientifically based clinical use of CBCT in dental imaging, had recommended in 2009 that the EAO review its previous guidelines to take into account the increasing demand for CBCT in dental practice in recent years.

The new EAO guidelines primarily focus on patient welfare and safety with regard to minimising their exposure to ionising radiation. They were drawn up to support radiologists, as well as dentists and their assistants, in primary care.

"The field of diagnostic imaging is often both very technical and complex. I believe these EAO guidelines provide a very easily accessible, practical and authoritative approach to the area and offer useful guidance to dentists to help them fulfil their obligations, to act always in the best interests of their patients, as well as to be aware of their ethical and legal responsibilities," said Prof. David Harris, lecturer at the Trinity College Dublin Dental School and Hospital and chair of the EAO panel of 14 radiologists and clinicians from all over Europe that convened at the Medical University of Warsaw in May 2011.

According to the panel, all diagnostic imaging carries a risk however small; nevertheless, in implant dentistry, it is considered essential to patient evaluation for proposed surgical treatment, the investigation of certain complications and prosthodontic planning. The experts therefore highlighted that it is necessary to reduce any radiation dose according

to the ALARA principle and to ensure that the examination of each patient is always justified and results in a net benefit to the patient. Available alternative techniques with the same objective but involving less or no exposure to ionising radiation must also be taken into account, they said.



(PICTURE: ©JOHANN HELGASON)

The consensus paper was presented at the 2011 EAO annual congress in Athens. It was published online on 20 March in the *Clinical Oral Implants Research* journal ahead of print.

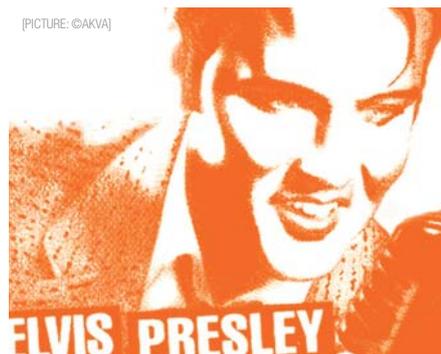
The King's dental crown

Purchased by Canadian dentist

A Canadian dentist has recently made the winning bid on a porcelain crown of Elvis Presley. The affectionately named "Kings Crown" sold for £5,200 (US\$8,150) and added to the dentist's collection of celebrity dental memorabilia, in which he already had a tooth from John Lennon he bought last year from the same auction house. Dr Michael Zuk, a general dentist from Red Deer, Alberta (Canada), purchased the crown together with a model of Elvis Presley's teeth made for the rock-and-roll star by his former dentist, Henry Weiss, in Memphis. The crown was accompanied by five documents confirming its authenticity, including a letter from Presley's

tour manager Joe Esposito. The crown was sold on 25 February by Omega Auctions, a family-run business in south Manchester, offering rare items of music and film memorabilia, among others. Prior to the auction, the crown was expected to be sold for an estimated value of £6,000 to £10,000.

"Whilst it is not a real tooth, as was the case with the Lennon tooth, it is the only one in existence and we expected there to be considerable interest in this and were really pleased that it sold for £5,200," said Paul Fairweather of Omega Auctions. According to Zuk's blog, Presley used to have a gap between his teeth. He was so embarrassed by the space that he decided to have one of his front teeth crowned. Weiss practised dentistry in Memphis for 57 years until he died in December 1990. He was Presley's dentist until 1971, and prepared the porcelain crown and always kept an extra copy of the crown. When Elvis cracked his crown on a microphone during a performance, Weiss's son, S. Lewis Weiss, flew the replacement crown to Las Vegas. "John Lennon was a huge Elvis fan so to be the owner of dental memorabilia from both mega-stars is pretty amazing," said Zuk.



(PICTURE: ©AKVA)

Carl Zeiss receives

Red Dot Award for OPMI PENTERO 900 Surgical Microscope

Medical technology provider Carl Zeiss Meditec announced that its OPMI PENTERO® 900 surgical microscope has won the highly-coveted Red Dot Award: product design 2012 in the Life Science and Medicine category. Only 62 of the 4,515 products entered this year were awarded "red dot: best of the best" in various categories. The 30-member international jury honored the industrial design of the surgical microscope for meeting the highest standards in nine strict adjudication criteria, including quality, innovation, ergonomics and functionality. The winning products will be honored at the awards ceremony to be held in Aalto Theater in Essen, Germany, on July 2, 2012.



reddot design award