centre. When children attend they are accompanied by a parent/carer and also a social worker. In this way we are able to ensure multi-disciplinary working. The dental appendix to the medical report can also highlight the oral needs of the children to their health visitor (for the under fives) and many of the health visitors will have a dental health support worker as part of their team who can support families to access the care. Importantly this has also raised the profile of oral health with both our medical colleagues and colleagues in social services who are now more aware of the important input dentistry can have to the overall assessment of children's welfare, especially in this most vulnerable group.

C. Harris, A. Cairns, R. Welbury
Glasgow
DOI: 10.1038/sj.bdj.2013.60

TWO SMALL PUNCTURE WOUNDS

Sir, we would like to bring to the attention of the reader two unusual cases which we have recently seen.

Both patients were referred to us following routine scaling of lower teeth using an ultrasonic scaler and high volume suction, in dental practices. Both described similar accounts of a sudden pain in the floor of the mouth followed by the sensation that tissue was sucked into the aspirator tip for a number of seconds. Immediate swelling of the floor of the mouth and neck was experienced by both of these patients. Treatment was ceased immediately and the patients were referred on an urgent basis. Crepitus, as the characteristic finding of subcutaneous air, was evident in the anterior triangles of the patients' necks bilaterally. Further examination showed that two small puncture wounds were noted in the floor of the mouth of each patient. These patients were fortunate not to require any surgical airway intervention but were treated with prophylactic antibiotics and admitted to hospital for a period of observation. The surgical emphysema resolved spontaneously over some days.

We hypothesise that the puncture wounds made inadvertently by the ultrasonic scaling tip acted as a flap-type valve. Air was drawn into the floor of the mouth when tissue was sucked in to the aspirator tip with subsequent spread of air into the neck along normal anatomical tissue planes.

Surgical emphysema can be a complication of a number of dental and maxillofacial procedures. The exhaust of an air rotor drill can sometimes inject a small volume of air into submucosal or subcutaneous tissues. Defects of the anterior wall of the maxillary sinus can predispose to surgical emphysema if patients blow their nose against resistance. This increases the intra-antral pressure and air can escape into the soft tissues. These include patients who have recently had maxillary osteotomies, patients with zygomatic fractures, and also individuals who have oro-antral fistulae closed surgically.

We feel that practitioners should be aware of this unusual complication that can arise during a routine and very commonly performed procedure.

C. J. Sweet, G. C. S. Cousin
Blackburn
DOI: 10.1038/sj.bdj.2013.61

NEW TWIST TO AN OLD STORY

Sir, I read with some amusement and interest the article by Jeavons on 'familiar forceps'.[1] Doubtlessly, down through time, both dentists and patients alike have sought and prayed for that 'painless and easy' extraction. In order to make in particular those molar and premolar extractions easy (easier), I have found empirically that rotation movements greatly assist. Standard forceps are placed on a multirooted tooth, after application of straight elevator to the buccal and lingual – be it a molar or premolar – care being taken to grasp as far apically with the forceps as possible. Then, firm steady clockwise rotational force is applied until strong resistance is felt. Pause against the resistance and relax the grip. Then redo this manipulation two to three times in the same clockwise fashion. Release the forceps and re-apply and perform this manipulation several times anticlockwise. Again release and proceed clockwise in such a fashion. By this stage the tooth will be found to be relatively loose in its socket. Standard elevation can now be attempted to deliver the offending structure! This procedure fractures periodontal ligament fibres and aids socket dilation of the most reluctant of teeth. I personally find it much less of an effort than standard figure of eight and socket dilation via compression and tensional forces. The patient too doubtlessly appreciates the simpler approach with the only caveat being that for lower teeth good jaw support with the opposing hand is required – but this is not entirely different from a standard protocol extraction.

Quinn[2] has demonstrated that rotational movements are indeed workable for a multirooted tooth contrary to the general dogma of not using rotational forces in teeth with more than one root. Rotation can be demonstrated to be effective with a low incidence of alveolar and root fractures. Quinn uses the rotational approach with cow horn forceps into the bifurcation area. One caveat is that the roots must be relatively straight. Although this author does not advise this approach with finer multirooted maxillary teeth I personally find that the rotational method works well with upper as well as lower multirooted teeth.

From a theoretical viewpoint, the periodontal ligament can be modelled as an anisotropic, viscoelastic material.[3] In other words, shows directional dependence in terms of stress and strain and has elements of elastic recovery and flow deformation. I would add that the periodontal ligament fibres can be perhaps also likened to a series of springs and thus could be mimicked by Hooke's spring laws. For those seeking the more technical engineering application, finite element analysis has been adequately outlined in regards translational orthodontic tooth movements.[4] Ultimately, engineering modelling for dental extraction also has the potential to greatly support the clinician involved in this procedure daily.

Whatever the model or theory applied, perhaps the periodontal ligament and socket can be simply viewed as weaker under rotational shear and torsional forces than compression or tension. From first principles it can be appreciated that chewing forces would place less torsional load on teeth compared to compression or tension. Nonetheless, for my clinical colleagues I would without hesitation

recommend the use of the described controlled rotational movements for the removal of any multirooted tooth with reasonably straight roots. This straightforward technique ought to be added to the general dentist's armamentarium. No extra equipment is required and you and your patients may well be thankful for any such method that makes exodontia easy (*easier*)!

J. A. Loudon
NSW

1. Jeavons P. Familiar forceps. *Br Dent J* 2010; **208:** 96.
2. Quinn J H. Use of rotational movements to remove mandibular molars. *J Am Dent Assoc* 1997; **128:** 1705–1706.
3. Natali A, Pavan P, Carniel E, Dorow C. Viscoelastic response of the periodontal ligament: an experimental-numerical analysis. *Connect Tissue Res* 2004; **45:** 222–230.
4. Provatidis C G. An analytical model for stress analysis of a tooth in translation. *Int J Eng Sci* 2001; **39:** 1361–1381.

DOI: 10.1038/sj.bdj.2013.62

IMPLANTS AND DEMENTIA

Sir, your interview with Professor Donos (*BDJ* 2012; **213:** 479–481) stimulated me to ask the most important question of all. What happens to people with high maintenance implants when they develop dementia and are unable to look after themselves?

As a dentist working in Central London in the special care dental service I know the answer, and it's not pretty.

Over the past year or two I have started to see a number of people with dementia and implants. All of them are uncomfortable, and none of them is practising adequate oral hygiene. The dentists who fitted the implants and follow Professor Donos' recall/hygiene procedure lose touch with them. In any case, the patients often can't afford to pay for follow-up, and we can't do very much on a domiciliary basis anyway.

Care staff notice that the overdenture or fixed appliance has a nasty exudate from the fitting surface. They are unable to clean the appliance properly because the resident won't cooperate. Often they won't remove the overdenture because they are frightened of the strange objects protruding from the gum, or the patient won't let them, for fear of losing the denture. Forget aided flossing or interdental cleaning.

Not only are the gums under the appliance infected, but the different 'feel' of the implants causes concern, especially when the odd couple of teeth are placed around the mouth, and the adjacent natural teeth have decayed to roots.

Radiographs show peri-implantitis, of course. What's the answer? Oral surgery referral for a sick 95-year-old for fairly unpleasant surgery, who can't provide informed consent?

Looking at the number of dentists placing implants, I can see this cohort is the tip of the iceberg.

Older people are a real dental time bomb, even more so with increased life expectancy.

I recently looked at the dental status of residents in a local care home: 75% had decayed teeth, and 54% had very poor oral hygiene. (Special care dentists will be nodding their heads at this – words can't describe how bad these people's mouths are.)

In this situation I urge implantologists to think about the ageing of their patients, as well as the beauty of their restorative jewellery.

Perhaps the answer is to stick to implants where all the intraoral parts can easily be unscrewed when the patient is old and unable to look after themselves. Obviously a silly suggestion, but one which I hope will stimulate thought.

As for me ... I'll stick to my gaps in the premolar areas thanks!

D. Howarth
By email

DOI: 10.1038/sj.bdj.2013.63

INCREASING INTEGRATION

Sir, the opinion piece by Professor Giddon (BDJ 2012; 213: 497–498) draws attention to the increasing integration of medical and dental education exemplified by the proliferation of academic institutions combining faculties of medicine and dentistry. The University of the Witwatersrand, Johannesburg, has had for a number of years a Faculty of Health Science, incorporating as equal partners Schools of Oral Health Science, Clinical Medicine, Pathology, Public Health and Therapeutic Sciences. The University of Western Ontario in London, Canada, combines the teaching of the two professions under the umbrella of the Schulich School of Medicine and Dentistry. The University of Medicine and Dentistry of New Jersey, USA incorporates the two professions under its combined single title. The University of Alberta, Edmonton, Canada incorporated its Dental Faculty into the Faculty of Medicine and Dentistry, subdivided into various medical departments, with the School of Dentistry recognised as an equal partner with the Dean of Dental Affairs being a Senior Associate with the Dean of Medicine. The first two years of the four-year MD and DDS programmes are taught together. Moreover, the dental students are inducted into blood pressure assessments, and, with medical students, take a course in patient tobacco cessation guidance. The Harvard University protocol of training general practice dental residents to provide preventive primary care as oral physicians sets the pattern for the future practice of dentistry as a partner in medicine in providing comprehensive healthcare for their patients.

G. H. Sperber
Edmonton

DOI: 10.1038/sj.bdj.2013.64

QUESTIONABLE VALUE

Sir, recent *BDJ* content has raised important CPD issues.[1,2] The enormous amount of paper consumed in feedback forms (often completed in seconds at the end of a CPD programme) duly collected and exchanged for verifiable CPD certificates surely must be a concern, as well as of questionable value. Yet this can often be the only method used to confirm this most important process currently used to facilitate re-registration pan-professionally.

Is this really sufficient to maintain a professional edge when it is known that biomedical knowledge doubles every 20 years?[3] Are these traditional methods that are widely used in various formats to update knowledge and skills pertinent to dental practice in the year 2013? The essential need from a general dental practice standpoint and of course, that of other modalities, is that any system that purports to increase the knowledge base will also help to apply and deliver this to clinical decisions and practice and hence benefit patient treatments as Kelleher points out.[2] It has been suggested that