

important for youth smoking prevention. Interestingly, the strength of the tobacco industry's (failed) legal challenges to SpOT, in the UK, indicate their views on the potential impact to their business.<sup>8</sup>

Pictorial health warnings are also an important tool in a comprehensive tobacco control strategy. To date, more than 100 countries have passed legislation implementing this highly cost-effective tool.<sup>9</sup>

In a recent review, the UK ranked 14th globally for its warning size of 65% of the packaging's front and back surface (along with all other EU countries).<sup>9</sup>

Finally, surveys of the public perception of harm from e-cigarettes (and nicotine replacement therapy) indicate increasingly negative views, with only 13% of people (in 2017) considering e-cigarettes to be a lot less harmful than smoking.<sup>10</sup> Some of this is attributed to misconceptions around perceived harm from nicotine, which although highly addictive is 'not a significant health hazard' on its own delivered in forms other than combustible tobacco.<sup>11</sup> There are clearly mixed views amongst dental professionals and over the coming years we need to continue to develop the evidence base to best inform our patients and ourselves.

R. Holliday, D. Arnott, P. M. Preshaw, L. Bauld,  
by email

1. Quinlan K. Perspectives: 'Patients with 40-60/day habits are now few and far between'. *Br Dent J* 2017; **223**: 468-471.
2. Use of e-cigarettes in public places and workplaces. Advice to inform evidence-based policy making. London: Public Health England, 2016, PHE publications gateway number: 2016129.
3. Will you permit or prohibit electronic cigarette use on your premises? Five questions to ask before you decide. London: Action on Smoking and Health (ASH), 2015.
4. Holliday R, Preshaw P, Bauld L. Smoking cessation: The role of e-cigarettes. *Br Dent J* 2017; **222**: 3.
5. Moodie C, Angus K, Stead M, Bauld L. Plain Tobacco Packaging Research: An Update. Stirling, Scotland: Centre for Tobacco Control Research, Institute for Social Marketing, University of Stirling, 2013.
6. Moodie C, Stead M, Bauld L. Plain tobacco packaging: a systematic review. Stirling, Scotland: Public Health Research Consortium, University of Stirling, 2012.
7. Chantler C. Standardised packaging of tobacco. Report of the independent review undertaken by Sir Cyril Chantler. London: King's College London, 2014.
8. Royal Courts of Justice. Case Numbers: CO/2322/2015, CO/2323/2015, CO/2352/2015, CO/2601/2015, CO/2706/2015. London: High Court of Justice, Queen's Bench Division, Administrative Court, 2016.
9. Cigarette Package Health Warnings: International Status Report. Fifth Edition. Canada: Canadian Cancer Society, 2016.
10. ASH Fact Sheet. Use of e-cigarettes (vapourisers) among adults in Great Britain. London: Action on Smoking and Health (ASH), 2017.
11. E-cigarettes: an evidence update. A report commissioned by Public Health England. London: Public Health England, 2015, PHE publications gateway number: 2015260.

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## Cariogenicity of e-cigarettes

Sir, electronic cigarettes (e-cigarettes) have been a popular topic of discussion recently. Their relationship with periodontal disease has been a particular area of interest within the dental field.<sup>1</sup> However, they may also pose a risk for another major oral health problem, dental caries.

An electronic cigarette is a device which utilises the heating of a solution or 'e-liquid' to release a vapour. Initially devised as a means to deliver nicotine to a smoker in a familiar method to which they are accustomed, the concept was developed with the introduction of a plethora of flavoured 'e-liquids'.

The e-liquids contain a mixture of various chemicals including sucrose,<sup>2</sup> aqueous glycerine and artificial flavourings.<sup>3</sup> This cariogenic substrate is delivered to the oral cavity as an aerosolised vapour.

Furthermore, the introduction of flavoured e-liquids, as well as zero-nicotine levels, has now also attracted non-smokers to the use of e-cigarettes as a recreational activity. 'Vaping' has become especially popular with teenagers and young adults, often involving prolonged sessions of continuous use lasting numerous hours.

I would propose that the cariogenicity of flavoured e-liquids could be an area of further research. Furthermore, it could be particularly beneficial to work together with manufacturers to develop less cariogenic 'e-liquids', using alternative ingredients.

S. Umerji, Liverpool

1. Wadia R, Booth V, Yap H F, Moyes D L. A pilot study of the gingival response when smokers switch from smoking to vaping. *Br Dent J* 2016; **221**: 722-726.
2. Kubica P, Wasik A, Kot-Wasik J, Namie-nik J. An evaluation of sucrose as a possible contaminant in e-liquids for electronic cigarettes by hydrophilic interaction liquid chromatography-tandem mass spectrometry. *Anal Bioanal Chem* 2014; **406**: 3013-3018.
3. Callahan-Lyon P. Electronic cigarettes: human health effects. *Tob Control* 2014; **23**(Suppl 2): ii36-ii40.

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## Primary dental care

### Rubber dam, feather fingers and reflection

Sir, like Keith Marshall (*You're not serious*, *BDJ* 2017; **223**: 552) I was a rubber dam addict: so much easier for patient, dentist and dental nurse. My patients also fell asleep and sometimes I needed a small prop to keep the mouth open as it could close while they slept and this seemed better than waking them with a request to open. One patient who was

a professor of physiology was routinely asleep, but on one visit was uncharacteristically eyes open, wide awake. He later explained he was trying to work out why, with rubber dam on, he felt I was not working on him. This seems important, perhaps worthy of research. Could it partly explain why for nervous patients, rubber dam seemed so helpful? Roger Beetles' feather fingers (*A gentle touch*, *BDJ* 2017; **223**: 552) may also aid sleep. I hope this can be taught/developed but maybe it is mainly a gift. Again, a great topic for research!

I so enjoyed your *Reflection* Editorial (*BDJ* 2017; **223**: 549), triggered by the celebration of 50 years in Wimpole Street, although as a student at the Royal in the 1960s I can confirm plaque was identified as the cause of periodontal disease and all local anaesthetics were given with disposable needles. The Queen's address on the opening of the building showed she was well aware a good dentist could reduce operative work by encouraging self-care by the patient. Her dentist, with rooms close to BDA headquarters and a practice predicated on prevention, may explain her knowledge. This makes your final paragraph all the more important. You hit hard about: 'the prolonged and disastrous reign of the Unit of Dental Activity as part of the defunct NHS Dental Service, the ineptitude of the discredited and disbanded GDC as an out of touch regulator...' This was for me an appropriate reflection on the two worst things to befall dentistry in my 50 years.

E. Kidd, by email

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## Dental radiography

### Root dwarfism

Sir, the case described in the letter *Dental radiography: short roots* (*BDJ* 2017; **223**: 464) seems to be a case of SRA (short root anomaly), a rare disease. It can be idiopathic, a result of radiotherapy or chemotherapy in childhood, or hereditary. It is also known as root dwarfism. Further information is available in the literature.<sup>1,2</sup>

M. Fecine, Brazil

1. Valladeres Neto J, Rino Neto J, de Paiva J B. Orthodontic movement of teeth with short root anomaly: Should it be avoided, faced or ignored? *Dental Press J Orthod* 2013; **18**: 72-85.
2. Bansal S, Bansal P, Gupta A. Generalized severe short root anomaly: A diagnostic dilemma. *Indian J Oral Sci* 2015; **6**: 88-92. Available at: <http://www.indjos.com/article.asp?issn=0976-6944;year=2015;volume=6;issue=3;page=88;epage=92;aulast=Bansal> (accessed December 2017).

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