

Dental amalgam

The realities of amalgam teaching

Sir, H. Al Saliati makes some very interesting points about discrepancies between teaching in dental schools and the realities of practice, particularly with regards to the teaching and use of dental amalgam.¹ Whilst the use of amalgam post-qualification in the UK may differ from Jordan, the argument with regards to amalgam use may soon become more relevant and increasingly complex.

Recent EU proposals² suggest:

‘The revised Mercury Regulation targets the last intentional remaining uses of mercury in a variety of products in the EU in line with commitments set out in the EU’s Zero Pollution Ambition. It sets rules that put the EU firmly on the track to becoming the first mercury-free economy by:

- Introducing a total phase-out of the use of dental amalgam from 1 January 2025 in light of viable mercury-free alternatives, thereby reducing human exposure and environmental burden;
- Prohibiting to manufacture and export of dental amalgam from the EU from 1 January 2025.’

Whilst not yet ratified [at the time of writing] there is a high chance the UK will be affected. Once EU production ceases, although procurement routes will still exist from Australia and USA, costs are likely to increase accordingly. Northern Ireland may be disproportionately affected due to the Windsor Framework.

Much as H. Al Saliati describes, undergraduate teaching in the UK has also shifted, in favour of composite placement over amalgam wherever practicably possible. In the UK, however, amalgam is still in widespread use amongst dental practitioners.³ Accordingly, Peninsula Dental School and some others currently provide practical amalgam teaching, in order to graduate safe practitioners. In light of the EU proposal, this leads us to consider: (i) what are the contingency plans for teaching and assessment involving amalgam? (ii) what are the options for advanced cavities in posterior teeth where adequate isolation is not possible?

Dental education and the profession as a whole need to urgently start considering the implications of disrupted supply chains on their practice and what this may mean for our patients. The impact on wider clinical care

should not be underestimated, particularly against a backdrop of a crisis in NHS dentistry within the UK. Dental amalgam – here today – may be gone tomorrow.

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Oral health

Energy drinks in healthcare personnel

Sir, we would like to contribute to the discussion prompted by S. Watt *et al.* on the consumption of sports and energy drinks (EDs) and the potential impact on general and dental health.¹

The widespread diffusion of EDs among young people has been analysed in several manuscripts.^{2,3,4} These habits have repercussions on the development of non-communicable diseases.^{4,5} However, the most recent literature highlights that drinking EDs is also growing in a new category of subjects: healthcare personnel.^{6,7}

Healthcare personnel are subjected to night shifts and the use of EDs facilitates alertness and attention. The consumption was exacerbated during the pandemic period when healthcare personnel were overwhelmed by stressful shifts and extreme working conditions.^{6,7} It is necessary to implement knowledge on the negative effects caused by the different components contained in EDs, also in healthcare personnel.^{2,3,8} The harmful effects on health depend not only on the amount of caffeine, but also on the action of other energising substances such as taurine and guarana.³ The damage to teeth is often underestimated even by staff who have had specific healthcare training.

We believe it is important to extend the assessment of EDs consumption beyond just young people to identify risk trajectories early. This broader perspective aligns with a proactive approach to understanding and addressing potential health risks associated with energy drink consumption across diverse demographic groups.

A greater knowledge and awareness is needed among healthcare personnel regarding the potential risks associated with high consumption of EDs. This implies the need for education and training programmes within the healthcare community to ensure that professionals are well informed about the side effects induced by both EDs and foods with nutraceutical effects.

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Dental charities

BDA Benevolent Fund articles

Sir, the recent BDA Benevolent Fund articles have made fascinating reading, the thoroughness of the research impressive (Volume 235 issues 9–12). Having been involved with the charity in various ways over many years, to find my name mentioned, without full reference to so, so many others, can only require an immediate response.¹ In my time initially both Ken Swiss and Tony Chivers were our wise leaders and inspiration. Fellow Officers and Trustees/Branch Reps worked tirelessly and selflessly with the sole aim to help those in our profession, and their dependants, in need. In particular, during my years in office, Ken Franklin, Bryan Gillard, Peter Swiss, Bob McKechnie, Richard Elvin, Ian McIntyre, Mavis Phipps, John Turner, Philip Sutcliffe and Robin Rippon, all prominent members of the profession, were terrific team mates. The then-administrators, Priscilla Watt followed by Sally Atkinson, played their role superbly. The Ben

Fund has, quite rightly, changed more rapidly as time has passed with equally dedicated and able helmsmen and crew. The need for the Fund continues. Please, don't forget the Ben Fund!

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Occupational health

Ear protection for dental practitioners

Sir, recent research into hearing loss, hearing aids, and dementia¹ has concluded that people with hearing loss have a 20% higher risk of developing dementia than people with no hearing loss. This is reduced to 6% if hearing aids are worn. This link intensifies the need for dentists to consider and manage the risk to themselves, and to their staff.

The association between the use of the air rotor handpiece and hearing loss is well researched and documented^{2,3,4} with

dentists using this equipment suffering twice the incidence of hearing loss and tinnitus compared to the general population. The association was noted even among dental students after as little as 15 minutes' exposure.⁵

The air rotor handpiece operates with noise levels reportedly between 70 and 82 dBA, with peaks up to 105 dBA. The Control of Noise at Work Regulations 2005⁶ sets action by employers at certain noise exposure levels. These include risk assessments, provision of hearing protection, and health surveillance, including hearing tests.

A quick scan through advice and guidance given relating to PPE shows a heavy influence from the COVID pandemic, a concentration on prevention of cross infection and protection of eyes and skin, and a total absence of reference to noise levels and hearing impairment, for example *Practice Support Manual*.⁷

Ear protection devices (EPDs) range from the simple cotton wool ear plug, to devices which block certain levels of noise or certain sounds and allow normal conversation.

Should guidance now be reviewed to include specific reference to the risk of

hearing loss and subsequent dementia, and to the responsibility of employers to protect their staff?

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