

Letters to the editor

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Orthodontics

Orthodox or orthodont?

Sir, I write to draw the attention of your readers to a new campaign launched to lobby for a change of names for orthodontists to orthodontists to help straighten out a long-standing disparity.

For many years there has been evident confusion in the public's mind about the differentiation between 'dont' and 'dent'.¹ For many the dont is viewed as denoting a lesser qualification than the dent, leading to a significant loss of respect to my esteemed colleagues in the field of orthodontics, or orthodontics as we would like to hear it styled in the future (Fig. 1).



The precedent for this is very clear since a GDP is not described as a general dontist practitioner and the prospective next NHS agreement is not referred to as the new Dontal Contract.

We are in discussions with other specialist societies who feel similarly about this historically iniquitous situation and I suspect that in due course you will be receiving similar missives from prospective periodontists, prosthodontists and forensic odontologists.

D. Ignation, by email

1. Spool N. Dents and donts – new musings on an age-old dilemma. *Int J Clin Med Nomenclature* 1954; **232**: 7–35. DOI: 110.1038/sj.bdj.2017.1093

Oral health

Terrifying mineral

Sir, imagine my surprise when in recent conversation with my dentist I discovered that my mouth is contaminated by a high concentration of 'hydroxyapatite'. Since learning this shocking information I have spent a significant amount of time browsing Internet chat rooms and in conversation down the pub and would like to present the findings of my research for your consideration.

Hydroxyapatite is a terrifying sounding complex crystalline mineral which has the chemical name $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$. As if this weren't bad enough you can see its ingredients include 'phosphate' and 'hydrogen'. Hydrogen is known for being a highly flammable gas, responsible for the Hindenberg disaster. Phosphate is an industrial chemical used in fertiliser and can also be used to make explosives! Further research has led me to discover that hydroxyapatite is commonly found in the mouths of monkeys, pigs and (worst of all) rats!

There has never been any research into the safety of this chemical in our mouths. As you know, a 'randomised control trial' is well recognised as a gold standard research method. I think it is telling that there has never been a single randomised control trial to demonstrate the safety of hydroxyapatite. There are no regular measurements made of the levels of hydroxyapatite found in urine, blood or nails. However, what we do know though is that it can accumulate in bones, sometimes making up to 70% of bone mass by weight. This seems like an awfully high percentage.

Worse still, there is no standardisation of the oral dose individuals are exposed to. This can vary massively, even between members of the same family. It seems that people subject to high levels of sugary and acidic

foods and with low levels of oral hygiene are much safer as they have significantly reduced oral quantities of hydroxyapatite. This is contrary to 'traditional' oral health advice. Some would say that this advice is outdated.

Aside from the chemical dangers of hydroxyapatite there is also the physical danger. Studies have shown that it is extremely hard and when teeth covered in hydroxyapatite are pressed into soft tissue with force (for example, the arm of a colleague), significant trauma can be caused.

Unfortunately, government officials and dental professionals have put a great deal of their credibility on the line defending hydroxyapatite, demonstrated by the fact that most modern dentistry is aimed at protecting and preserving this potentially deadly mineral. This means it will be very difficult for them to speak honestly and openly about the issue.

After consideration of the evidence this author suggests precautionary removal of hydroxyapatite from the oral environment. The safest way of achieving this is a full dental clearance and provision of complete dentures as this avoids aerosolisation and environmental pollution. However, an untested but more conservative approach could include removal of the layer hydroxyapatite from all teeth and replacement with a layer of hygienic and chemically stable porcelain.

My advice to patients would be to not be disheartened if your dentist looks confused or even incredulous when you discuss this with them. It is important to remember that they are unlikely to be as well informed as you. This is because health professionals rely on published studies in peer-reviewed journals for information to inform their practice. This leaves them with limited experience of the real world and of internet search engine use.

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