

## First line defence for dental caries

Tooth decay is one of the most prevalent health problems in the UK – with figures suggesting that approximately 31 per cent of adults have it to some extent.<sup>1</sup>

This disease can have a number of negative ramifications for patients who allow tooth decay to progress, including infection, tooth loss and the formation of abscesses. It can also lead to inflammation of the tissues around an individual's teeth, or periodontal disease. This last factor is particularly concerning, since periodontitis has been linked to a number of serious health conditions, such as diabetes, heart disease and, according to some sources, even cancer.

However, with good oral care and diligence, dental caries can be avoided. While there is some research suggesting a genetic predisposition to tooth decay may be the reason for a higher risk of developing these issues, there can be no denying that the main causal factor of decay is a lack of thorough oral care. This is, perhaps, due to the fact that many people do not understand the causes of dental decay or the steps they can take to prevent it. It is, therefore, imperative that dental professionals impress the importance of good practice upon their patients and offer them accurate and easy-to-understand advice – as well as do everything in their power to treat patients preventatively, rather than reactively.

Indeed, ever since 2009's 'Steele' report into UK dentistry, the onus on practitioners has been to promote preventative dental care, rather than focus on treatment.<sup>2</sup> This paradigm shift forced dental diagnostics into the limelight and means that professionals are under a great deal of professional and public pressure to identify and treat symptoms as early as possible.

Unfortunately, dental caries are notoriously difficult to detect in their initial stages, when the effects can be reversed or repaired. Normally, a patient will be diagnosed with tooth decay when they come in for a routine check-up and the practitioner physically sees that the damage has already been done, and so necessitating restorative treatment such as fillings. What's more, early detection has become significantly more difficult in recent years, due to the addition of fluoride in toothpastes and water – since cavities are more likely to develop under the top layer of harder enamel. As such, they are often missed until too late.

Luckily, new technologies are emerging on the dental market that seeks to improve the precision and efficacy of diagnostics and encourage enhanced preventative care. Visual technology, in particular, is proving to be especially effective, since patients are able to see their own dental issues easily – giving them a greater incentive to take action themselves. This has also had a positive impact on the profession, which can now share patient information quickly and effortlessly, enabling a higher standard of care between caregivers.

In regards to dental caries, the unique Calcivis<sup>®</sup> Caries Activity and Demineralisation Imaging System uses advanced biotechnology to provide a precise overview of active carious lesions on a patient's tooth before the damage they cause becomes irreversible. This way, practitioners can plan treatments, and

give advice to enlightened patients thus minimising the risk of carious progression and helping save more teeth.

**For more information visit [www.calcivis.com](http://www.calcivis.com), call on 0131 658 5152 or email at [info@calcivis.com](mailto:info@calcivis.com)**

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<sup>1</sup> Oral Health Foundation: National Smile Month, Facts and Figures. Link: <http://www.nationalsmilemonth.org/facts-figures/> [accessed 18/07/16]

<sup>2</sup> NHS England: NHS dental services in England: An independent review led by Professor Jimmy Steele, June 2009. Link: [http://www.sigwales.org/wp-content/uploads/dh\\_101180.pdf](http://www.sigwales.org/wp-content/uploads/dh_101180.pdf) [accessed 19/07/16]