EDITORIAL

Tooth wear

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The condition of erosive tooth wear can create significant challenges for dentists in any care setting. The impact of dietary (extrinsic) or gastric (intrinsic) acids together with attrition and/or abrasion can destroy tooth tissue. Like rampant caries it affects more than one tooth, often creating compensation mechanisms to the occlusal plane to such an extent that most if not all the teeth could be considered for restorations. However, in common with any condition the process starts with subtle changes and together with risk factors can lead to changes in the shape and size of teeth. As the papers in this *BDJ* themed issue illustrate, prevention is key.

In the early stages, in which we believe the impact is reversible, dietary or gastric acids cause a partial demineralisation of the enamel. Provided normal levels of saliva and acid clearance the impact is unlikely to lead to tissue loss. But if risk factors, which are explained in this themed issue, are not controlled repeated acid challenges can overwhelm the protective nature of the mouth and cause visible changes to the teeth. These changes are initially subtle and are not easily visible at a clinical examination. But if left uncontrolled the enamel, and eventually the dentine, are lost and ultimately lead to shortened teeth. As the reader will see, the impact of these changes both from an individual and community basis are common and the suspicion is that they are becoming more widespread.

Dentists can find the management of the condition challenging. There is emerging evidence to suggest that progression is not inevitable but the confidence of dentists in this concept remains questionable. Over time, more work is needed to understand when progression occurs and under what conditions the wear is stable. Emerging evidence from the diet suggests that for those susceptible to erosion they should restrict fruit and fruit-based drinks to meal times. The situation with gastric-related causes is less understood.

The BEWE remains the only simple practice-focused assessment to record the severity of tooth wear. It was intentionally designed to mimic the BPE and so allows dentists to adapt existing practices from an already established and accepted assessment into their clinical records. The title, BEWE, was chosen to assuage European colleagues who have a subtly different concept of tooth wear to those the UK. Although erosive tooth wear is used, it has equal relevance to any form of wear. The index is simply a tool to numerically record changes in the shape of teeth due to wear. As this tool becomes more widespread it will help dentists make a clinical record so if prevention is chosen as the most suitable intervention, no one should challenge them with neglect. As with all conditions the first phase in management is to recognise it.

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What is not open to debate is once the severity is visible to both the patient and dentist restorative intervention should be considered. This does not mean that restorations are the only option as this themed issue illustrates. A common theme with all restorations used to replace worn tooth tissue is the degree of maintenance needed to preserve them. It is relatively unusual for erosion to act independently; the impact of attrition and abrasion together or separately is more likely. When erosion, attrition and abrasion act together, restorations can be subjected to physical or mechanical forces which may lead to repeated material failure. The other consideration is the techniques needed to restore worn teeth are complex and in some cases beyond levels of confidence for most general dental practitioners. But there is no restorative panacea. Although composites are often considered by many to be a reversible intervention they also require maintenance and patients need to be aware of this as it involves more cost.

Our profession is increasingly aware of erosive toothwear and a new charity (www.erosivetoothwear.co.uk) supported by industry is designed to address this. With the help and financial support from of the four main commercial partners (Colgate, GSK consumer healthcare, Proctor and Gamble Professional Oral Health and Unilever Oral Care), it is the hoped that knowledge and understanding of this condition will improve and in time hopefully reduce the risk of it developing in our patients.

Both the authors of the articles and I hope readers will appreciate the effort involved with producing this themed issue of the *BDJ*, and it will help them in their daily practice. ■

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