Good oral health *and* orthodontic treatment belong together

Patients who receive orthodontic treatment often become adept at caring for their mouths. By **Caroline Holland**

While parents focus on getting orthodontic treatment to improve their child's smile, the wider health benefits of around 18 months in appliances are often overlooked. The evidence shows that there are significant improvements to be gained.[1,2]

In addition, there is anecdotal evidence from the dental professionals who care for this cohort of patients that those who are eligible for NHS orthodontic treatment become adept at oral hygiene and grow in confidence. In other words, there is a triple whammy of benefits. The reasons are clear:

If the clinician thinks you are not looking after your teeth, have poor oral hygiene or are eating and drinking the wrong sort of things – too many sweet snacks or fizzy drinks, for instance – you will not be offered treatment.

Furthermore, once you have started treatment, your dental health is constantly monitored and if you do not take care of your teeth the appliances may be removed. According to Colin Wallis, this happens rarely because only well-motivated patients are selected at the outset and they are given a clear idea of the commitment needed to undertake treatment.

Colin is the British Orthodontic Society's Director of Clinical Practice and founder of the Specialist Orthodontic Practice in Epping. During more than 30 years in the practice, he has seen hundreds of young people pass through his doors, their lives enhanced by their treatment.

His training made a deep impression (excuse the pun!): 'When I did my postgraduate training at UCH in the 1980s, the head of department insisted that in order to be accepted for treatment all prospective patients had to see the hygienist three times and achieve a plaque score of less than 10%. This rule applied to all malocclusions, regardless of severity.

'During treatment, plaque scores were recorded every six months and if they exceeded 10% patients were advised that appliances would be removed if scores remained high. This approach was set out in the informed consent and a few patients did indeed have their appliances removed mid-treatment.

'PATIENTS NEED TO KNOW THAT CLINICIANS WILL NOT OFFER TREATMENT IF THEIR MOUTHS AREN'T HEALTHY'

'Primarily, the aim was to minimise the risk of periodontal damage and decalcification, particularly with fixed appliances. It became increasingly clear, however, that many patients who had originally appeared with high plaque scores had carried their improved habits well beyond the end of treatment. Plaque scores were generally recorded during the retention period and the long-term periodontal benefits of an intensive period of oral hygiene supervision proved to be a very satisfying bonus.'

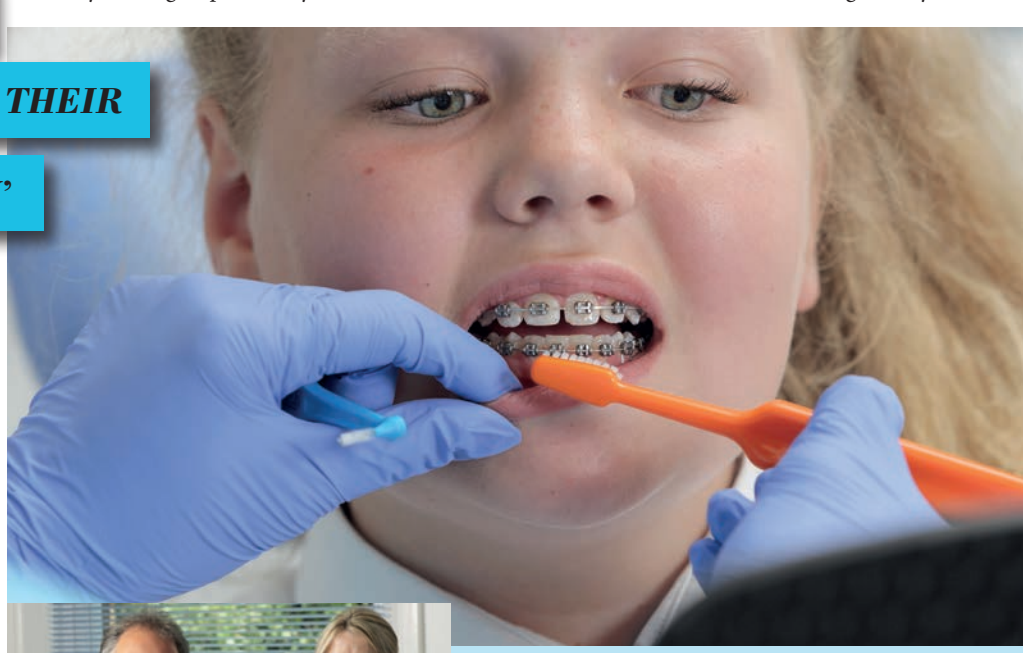
Tooth brushing clinic

Thirty years on, Colin continues to enjoy the same satisfying bonus of seeing young people learn to look after their mouths. Every year hundreds of patients complete treatment having grown in both stature and self-esteem. But some patients still struggle with their oral hygiene, which is why two of his orthodontic nurses, Jilly (who is also an oral health educator) and Kelly, took the initiative a few years ago to set up a weekly tooth brushing clinic. Patients who were turning up for appointments with too much plaque around their appliances, often with inflamed gingivae, would be booked in for a session.

Colin explains: 'A specific appointment is made with the two nurses, usually with two patients at a time for 15 to 20 minutes. The patients do not have an appliance adjustment on the same day, which reinforces the importance of the visit. The response from patients and parents has been very positive'.

Occasionally, parents want to join their children in the surgery and find out what they are being taught. But like his former head of department, Colin believes parents should wait outside and let their children take responsibility for their treatment.

'Schoolchildren see adults as authoritative and sometimes negative figures, but we aim to engage with them on a different level, treating them like adults and working together to complete treatment as efficiently as possible. In terms of compliance, tensions between patients and parents can surface in a clinical environment and at home. For example, in terms of oral hygiene, we avoid embarrassing patients in front of their parents. We discuss plaque control and diet on a one to one basis, discreetly shifting responsibility.'



Left hand page: Kelly and a patient. Above: Oral hygiene instruction. Left: Colin Wallis, orthodontist, with Jilly and a patient

Jilly and Kelly teach the following:

- Take extra care when you brush your teeth and remember to brush for at least two minutes in the morning and evening, as well as after meals to remove food debris
- Always use a fluoride toothpaste and brush your teeth with small circular movements, being careful to go thoroughly around your appliance
- After using a regular brush, use small interdental brushes in between the teeth and around the fixed appliance brackets, under the wires
- Chew a disclosing tablet once a week to show the areas of your teeth that need more attention
- Use a daily fluoride mouthwash.

The vast majority of patients are treated in the early permanent dentition stage but some malocclusions are associated with a significant skeletal discrepancy, which may require an orthognathic approach at a later stage. There may be additional complications, such as speech problems, and these patients may be advised to delay treatment until the late teens, when growth changes have reduced to a clinically insignificant level.[3]

Says Colin: 'By the time our patients have finished treatment, their oral health is generally greatly improved. I often think back to my training and I have learned how important it is to insist on high standards of oral hygiene. Patients and their parents need to know that clinicians will not offer treatment if their mouths aren't healthy, or that appliances might be removed for the same reason'.

1. Davies T M, Shaw W C, Addy M *et al.* The relationship of anterior overjet to plaque and gingivitis in children. *Am J Orthod Dentofacial Orthop* 1988; **93:** 303–309.
2. Davies T M, Shaw W C, Worthington H V *et al.* The effect of orthodontic treatment on plaque and gingivitis. *Am J Orthod Dentofacial Orthop* 1991; **99:** 155–161.
3. Magalhaes I B, Pereira L J, Marques L S *et al.* The influence of malocclusion on masticatory performance. A systematic review. *Angle Orthod* 2010; **80:** 981–987.

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