Using interdental brushes

Maggie Jackson explains how the use of interdental brushes can improve gum health

Aims and objectives
To discuss how interdental brushes can improve the health of the gums.

Expected outcomes
Correctly answering the questions on page 70 will demonstrate you understand how the use of an interdental brush can help improve gum health.

Verifiable CPD hours: 1

As a dental hygienist who has worked in specialist periodontal practices for more than 30 years, I see my role as eliminating periodontal disease without surgical intervention.

Healing of bleeding sites and minimal pocket depths need to be achieved and must be maintainable by the patient without undue rush or holding up the next stage of any restorative treatment.

Patient participation

Without patient participation, there cannot be long-term successful treatment outcomes, especially when you're presented with any level of periodontal disease.

Repeating three-monthly root instrumentation, or scale and polish, without exemplary home maintenance, cannot be said to be adequate care for periodontal disease control.

The patient needs the best tools available to play their part in eliminating bleeding or reducing pocket depths for themselves, in as many sites as possible, before any definitive professional periodontal instrumentation (Figure 1). Once this is completed, and there is a satisfactory review at six- and 12-weeks, the preparation and planning for placing restorative work may be considered.

The education and involvement of patients helps to provide 'adequate' treatment and groundwork for subsequent restoration of the dentition. It is crucial that the patient is enrolled in a long-term maintenance programme.

Unknown problems

As you know, when patients ask for advanced restorative, reconstructive or cosmetic treatment, they are often unaware of the importance of gum and bone health. Unfortunately, they may also be unaware that they have bone loss, pocketing and periodontitis, even if they may have noticed some occasional bleeding.

The superficial plaque control can very often look excellent but on probing there is bleeding and interdental pocketing, especially at posterior sites.

Restoration without absolute stability of the underlying tissues will be a disaster for the patient and the dentist.

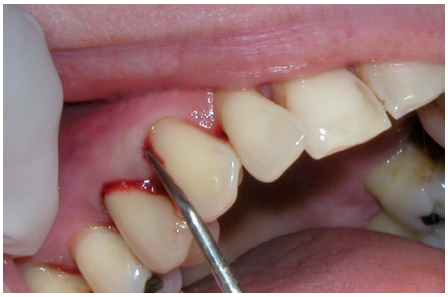

Figure 1: Subgingival instrumentation

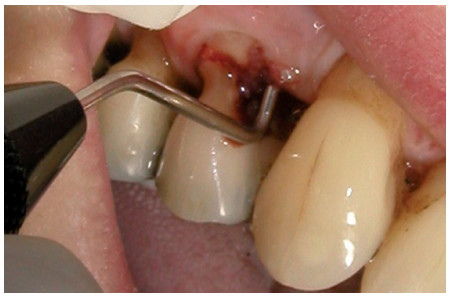

Figure 2: Interdental wear

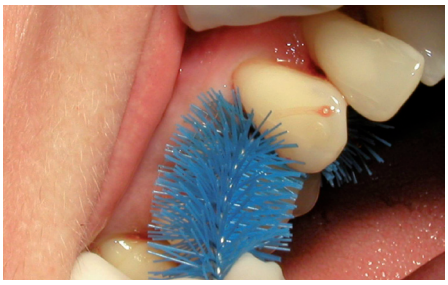

Figure 3: Subgingival cleaning

It is generally accepted that the usage of interdental cleaning aids, such as floss and fine interdental brushes at home, will help maintain gum health for those patients needing primary prevention, however, these products have a limited application with our periodontal patients.

The routine

Sometimes the patient is prescribed a range of interdental brushes by the dentist, hygienist or therapist using a carefully prescribed chart. The 'well-motivated' patient will seldom then think for themselves or change the routine they have received.

As the gingivae shrink or the lamina durra returns (there may be slight infill), they do not adjust the size they use because they have been instructed as to which brush is 'correct' in which site.

An interdental brush that is too small is no more than a toothpick, removing some debris and failing to adequately remove the interdental and subgingival biofilm that, as we know, clings tenaciously to the root wall of the pocket.

If the bristles are rather soft they are 'crushable' and the in/out scrub method, however gentle, can still cause tooth sensitivity and abrasion cavities over time (Figure 2) without cleaning the deepest part of the pockets in the interdental area.

Maggie Jackson qualified as a hygienist and worked initially in NHS practices building an enviable reputation as a clinician and an opinion former in the profession. In 2003 she was awarded a master of philosophy from Leeds, studying and researching periodontology. She has designed a special brush for the stabilisation and control of periodontal pocketing. Maggie has had many professional publications in leading journals and co-authored part of a hygienist handbook *Clinical Textbook of Dental Hygiene and Therapy*. She accepts referrals for more complex, non-surgical periodontal treatments from dental practices at The Malt House in Manchester and her own MIDHS practices in the North West and Colchester. For more information visit www.midhs.co.uk.

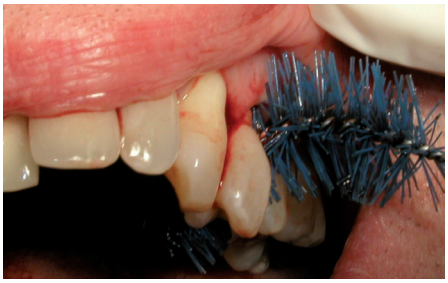

Figure 4: Subgingival spread

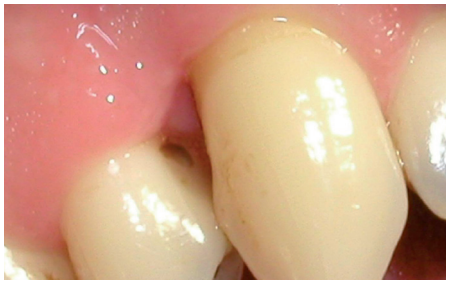

Figure 5: Healed interdental space

Figure 6: Vision Interdental Perio Brushes

The correct approach

Size does matter with any periodontal disease. We find effective interdental cleaning can reduce pocket depth and bleeding within two weeks in sites of 5-6mm by using the largest interdental brushes that can be fitted into the interdental area (Figure 3).

We show the patient how to use a very snug brush to compress the papillae. This method can reach 4-5mm into the base of these moderate pockets and well into the subgingival area, removing plaque (Figure 4).

By using this method of closely fitting brushes, patients will speed up recession and reduce bleeding from the base of the pocket remarkably quickly (Figure 5).

This can be followed a week or two later by thorough professional root surface instrumentation. In the periodontal practices where I work, most teeth that retain 30-50% bone and do not have deeply invaded furcation areas or endodontic involvement can often be regarded as restored to health, without surgery, and with a good prognosis for many years, ie no bleeding sites, which means no further bone loss. Although these teeth may have some reduced support, they can be maintained for many years as problem-free, stable teeth.

Special design

I find improved results with a specifically designed Interdental Perio Brush (Vision) (Figure 6). The brushes have coloured bristles that show up plaque and a larger diameter for patients with bone loss. Both the wire and bristle are firm and therefore strong enough to encourage compression of the soft inflamed tissues where bone has been lost and better subgingival plaque removal.

The brush has no handle so the tip of the bristle part is held directly onto the tooth (like a pen rests onto paper). Because it has no handle, I show the patient how it is inserted slowly little by little, wriggling, between the teeth for the entire length of the bristle part (Figures 7 and 8).

It has a curve designed to reach into the deepest depths at the mid-point of the interdental pocket. It is removed not by a 'tug' but little by little, gently compressing the papillae with the curve pressing against the gingival tissue.

Once in, once out, once a day is adequate. It meets patient needs and, in my practice, I find it the quickest way to reduce bleeding in a few days and hasten stability.

Patient responsibility

The advantage of not 'prescribing' any particular brush size means that the patient finds the fit for themselves. We explain that they start in the area with most bone loss, perhaps showing the X-ray to them. This is usually on the upper posterior area (and often on the right).

They start with one of the biggest in the range that has been selected for them. They are instructed to move round the mouth, fitting the brush where they can. Using the tightest brush they can fit in, without any back and forth rubbing, creates the best result.

We only find it necessary to suggest the biggest couple of sizes – then let them find out for themselves. They follow on with each brush in turn until a brush has been applied to each interdental area, if possible.

They rarely need to repeat from the palatal/lingual side as the brush head is long enough to reach this area. Because of the curve, the tongue side, which is often more swollen and usually with deeper pockets than the buccal, is compressed without the brush catching the gum.

It is inserted with just enough wriggle to compress the papillae. The patient is told that initial bleeding is to be expected but that it will reduce quickly as healing begins within a few days. They are encouraged to keep up a snug, appropriate fit for themselves.

It may be desirable sometimes to change sizes if they find, for example, that after a day or two the next size up can be used in an enlarged space, or after some weeks they may need a smaller size because of bone infill or tooth movement.

We review at two weeks to assess, reinforce and to keep them motivated. This is also a good time to help with any difficulties the patients may be experiencing.

A useful tool

I think the Vision Interdental Perio Brush is the most valuable addition to our armoury, in fact, even more than recommending a particular toothbrush – this being our 'weapon of choice' in the fight against progressive periodontal disease. It reaches the parts other brushes can't reach. More importantly, the patient takes 'ownership' of their improved gum health and has the means to keep the tissues healthy themselves. PD

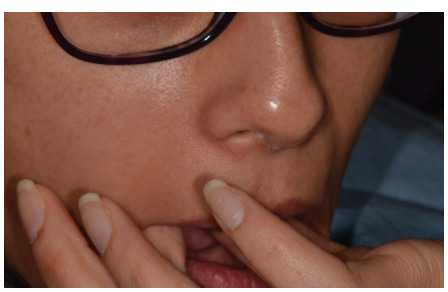

Figure 7: Patient finding access by feel alone

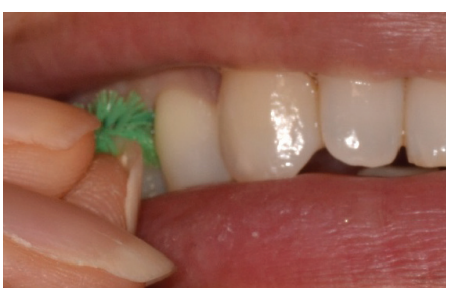

Figure 8: Patient feeding the brush between the teeth

CPD Questions turn to page 70