How to achieve better interdental healthcare routines

Clare Southards looks at the use of the interdental brushes in patients’ oral healthcare regimes

We all know what's good for us; eat well, exercise more, but there always seems to be a reason why we're unable to make the changes we'd like to see in our lives.

This is no different for our patients when it comes to maintaining a good oral healthcare habit. When it comes to interdental care, although many know the importance of removing the plaque that builds up unseen between teeth and below the gum line, there is still a lack of motivation to adopt a regular interdental routine.

According to a survey conducted in 1998, over half the adult population is suffering from periodontitis. As most dental practitioners know, the emphasis of the recent Steele Report was the need to improve oral health as a preventative method for the more serious complaints seen everyday in practices across the country.

The challenge for dental professionals is how to achieve and maintain better rates of compliance with oral health care routines by patients. Although 22 per cent of adults claim to floss regularly, there is good reason to be suspicious of this claim, and what might be the reasons for the low take-up?

Flossing is by no means a recent invention. Since the 1800s the notion of passing a silk thread between the teeth to loosen collected matter has been advocated as being an effective way of preventing tooth decay, but there's evidence dating back to prehistoric times of such methods being employed. Since the 1970s flossing has become an integral part of oral healthcare, and yet it's still undertaken by a relatively small fraction of the population.

Interdental brushing vs flossing

One reason may be that many dental practitioners find effective flossing difficult to teach, and patients often find it a tricky technique to master.

For those with poor manual dexterity, limited mouth opening or a strong gag reflex, alternatives to flossing (such as interdental brushing) should be sought. Only requiring one hand to perform the task of plaque removal is certainly an advantage for many patients, regardless of their manual dexterity, especially when the handles are ergonomically designed for greater manoeuvrability.

There is evidence supporting the view that interdental brushing is a better option for patients. A three-month trial found that not only did the people become proficient in using the brushes more quickly than floss, but also plaque and gingival inflammation was reduced more.

It's been recognised that flossing may not always be the most effective tool for removing interproximal biofilm, and that flossing becomes progressively less effective in interdental areas that have slight to moderate recession or complete loss of the interdental papilla.

In contrast, interdental brushes offer the flexibility of a range of filament thicknesses and lengths, meaning that regardless of the gap, there is a brush suited to best reach the recesses, making the process more effective:

As evidenced, because the filaments are soft there is less risk of damaging the delicate gum membrane, causing the pain and bleeds which will often demotivate the patient from persevering with the oral healthcare routine.

Maintaining motivation

Dental professionals, particularly dental hygienists, are at the forefront of oral healthcare education. With the shift in focus in NHS dentistry set to change, and a recommended restructuring of the payment system to reflect the practice’s efforts to improve oral health, motivating the patient to adopt and then maintain an oral healthcare routine should be in the minds of practice managers. The question is how.

Explain the risks: the connection between gum disease and heart disease has long been anecdotally suspected, but recent research has confirmed the link. It’s now understood that people with periodontal disease are almost twice as likely to suffer from coronary artery disease as those without periodontal disease.

Patients who are pregnant ought to be made aware that there is a relationship between periodontal infections and low birth rate.

Setting goals is a useful tool. Often a patient will claim a lack of time as being the reason for not maintaining a healthcare routine that involves flossing. One suggestion is to negotiate with the patient to produce a written plan.

One advantage of interdental brush is the ease of use. The ergonomic grip makes reaching the trickiest of interdental spaces easy to reach with one hand, making it feasible to clean the gaps between teeth at times convenient to the patient whilst watching television at home or on the move. The handy-sized brushes can be kept in a bag or purse to be used anytime or anywhere.

By creating a written plan the patient is far more likely to maintain an oral health routine, especially when another person (such as a dental hygienist) monitors their progress.

With more than 50 years of experience in designing interdental brushes, Curaprox have created the most durable and effective brushes now on the market. With ergonomic grips providing excellent manoeuvrability and control, patients will soon see an improvement in their oral health.
Genco summarised in his paper published the Journal of Periodontology the clinical implications of the workshop on inflammation and periodontal diseases. In this paper, he managed to compile a list of innovations currently still in the pipeline. These can be categorised as follows: Short-term: ready for clinical application over the next one to two years; Mid-term: ready for clinical application over the next five to 10 years; Long-term: ready for clinical application more than 10 years from today.

New risk profiles under development for periodontal disease and diabetes to be self-reported used in practice.

Risk assessment of risk for potential atherothrombotic vascular events in dental patients, with special consideration for those having periodontal disease using traditional markers of risk or C-reactive protein (CRP) in the Reynolds Risk Score.


Indication for use of nutraceutical and drug combinations (omega-5 fatty acid and aspirin) to control inflammation associated with periodontal infections.

Indication and application for use of inhibitors of matrix metalloproteinase for adjunctive management of periodontal disease as an adjuvant in surgical and non-surgical therapy.

**Mid-term innovations**

1) New diagnosis technology for measuring active bone loss
2) Application of diet diet rich in omega-5 fatty acids to reduce genetic predisposition to metabolic syndrome and the application of nutrigenomics
3) Therapeutic approach to use of anti-inflammatory agents, the endogenous resolvins and protectins
4) New tests to control MMP-8 in saliva, and fragments of bone collagen in tissue fluids for monitoring periodontal disease
5) The application of bone sparing agents to inhibit osteoclast recruitment and limit bone loss
6) Application of statins and targeted anti-inflammatory therapies in periodontal disease for modulation of inflammation

**Long-term innovations**

1) New approaches to regulate and prevent bone loss
2) Apoptosis regulation to reduce bone loss
3) Dietary modulation with genetic influence on phenotype in pathogenic pathways, for example, cholesterol levels and obesity – leading to prevention and treatment of cardiovascular diseases and other complex inflammatory disease such as periodontal disease
4) Identification of genetic risk profiles for periodontal disease
5) Genetic test to identify correlation between CRP, inflammatory mediators, periodontal disease, diabetes, and premature atherothrombosis
6) New data and information regarding pathogenesis of periodontal disease which may be modeled by incorporating gene, protein, and metabolite into dynamic biologic networks
7) Vaccines using periodontal pathogens to protect against periodontal infection
8) New prevention approaches to avoid uncoupling of bone deposition and bone resorption.

**References**


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Where did all the periodontists go?
Dr Louis Malcmacher finds out what’s changed the face of periodontology

Through my weekly travels to different cities across America, I speak to many dental specialists and their groups on the hottest topics in dentistry, practice management and total facial esthetics.

There are definite trends that are changing in all specialties across the board, whether it is short-term orthodontics versus long-term orthodontics, adhesive resin endodontics versus traditional gutta-percha endodontics or the conversation as to whether or not general dentists should be providing some of these specialty services.

I would have to say that the biggest change of any single dental specialty that I have seen has been in the periodontal field. There has been a real mind-set change that deeply affects the profession. I am not commenting here on whether this change is good or bad – I will leave that up to the reader to decide.

It is certainly something to consider as general dentists who refer patients to periodontists on what your treatment will be for the long run.

I have always believed that general dentists are the quarter-backs of any patient treatment case and we certainly rely on the skills and input of dental specialists, but the ultimate responsibility should be on the general dentist.

Removing teeth
Here is what I am being told by many periodontists whom I have spoken to over the last couple of years: they would rather remove teeth and place implants than actually treat patients through traditional periodontal surgery and try having them maintain their dentition.

The reason for this is really quite simple and every dentist knows this inherently. Patients refuse to take good care of their teeth even after they have gone through the time, cost, commitment and pain of traditional periodontal surgery and try having them maintain their dentition.

For years in our own practice, we have had patients who did not want periodontal surgery and would rather maintain the state of their oral health with three to four-month recall prophylaxis visits. We would often predict that their teeth would fall out within two to three years.

Surprisingly, many of these patients have done reason-
this mind-set has really changed periodontics today. Patients like the concept of implants, which are still vastly underused in North America.

Many patients would rather not have to take care of their teeth and have these unsightly, mobile teeth extracted and replaced with implants, which would restore their function and their esthetics.

With a 94 percent implant success rate, it is hard to argue when that success rate is so high compared to the poor long-term success rate of traditional periodontal surgery.

This is primarily because we have to depend upon the patients to keep up their regimens for the long-term success of their natural dentition.

New procedures – such as the wavelength optimised periodontal therapy (WPT) procedure with the Powerlase AT Laser by Laires Research, and LANAP procedures done with the Periolase laser by Millenium Dental – have brought periodontal services into the minimally invasive realm as a solution for patients who do want to keep their teeth without heavily invasive periodontal surgery.

Technology advances
New procedures – such as the wavelength optimised periodontal therapy (WPT) procedure with the Powerlase AT Laser by Laires Research, and LANAP procedures done with the Periolase laser by Millenium Dental – have brought periodontics today. Laser periodontal treatment will continue to develop and become even more effective in the future.

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Procedures such as implants and minimally invasive laser periodontal therapy will continue to improve and change the way we practice in this new decade.

Is this good or bad? You are the dentist, after all, so this is for you, the periodontist and the patient to decide.