One of the most successful species in evolution, sharks have been roaming the earth’s oceans for at least 400 million years. Key to their survival are their teeth, which almost entirely consist of fluorapatite, a mineral that forms highly organised, hard structures that are able to resist exceptionally high stresses. Glass Carbomer-based restorative products also develop high concentration of this mineral. Here at the BDIA Dental Showcase in London it is now being exhibited for the first time to dental clinicians in the UK and Ireland.

Developed by GCP Dental in the Netherlands, the material has been used clinically for over ten years. It is based upon biocompatible nano particle glass incorporating liquid silica and fluor/hydroxyapatite. Once in contact with the tooth, ion exchange commences which leads to direct bonding between the material and the tooth as well as remineralisation. Through the process, the material does not only form a strong and resistant unit with the natural tooth but also allows healing to any residual caries.

According to GCP, it can simply be recharged by using fluoridated toothpaste.

Fully biocompatible and fast-setting, the material is claimed to eliminate the risks of leakage and the development of any secondary caries. Clinicians will be able to continue working or taking impressions immediately after the material has been set using the thermocure LED light, the company said. While no bonding or etching agent are said to be required to establish the chemical fusion between the material and the dentine, a composite layer can be bonded onto the Glass Carbomer for enhanced aesthetics using standard acid etch/bond techniques. The material properties are optimised using a thermocuring lamp which according to GCP provides the correct level of focused thermal energy to speed up the curing process. An integral part of the GCP restorative system, however, the Carbo LED CL 010 can also be used for curing conventional composites. Also available from the company is the GCP Carbo Mix developed to allow controllable and consistent mixing of all types of capsules.

Recent studies conducted with the materials have demonstrated similar or favourable retention rates to composite resin based sealants, for example. The GCP Dental’s Glass Carbomer range of products is indicated for the restoration of pre-molar and molar teeth, as well as core build-up, fissure sealing and cementation. In the UK and Ireland, the line is exclusively distributed by Plandent.

“We are delighted to introduce GCP products to the UK and Irish markets in exclusive partnership with Plandent. We believe their knowledgable and well trained sales team to be ideal to advise dental clinicians, already well aware of the benefits of glass based restorative technologies, on the benefits of improved strength and remineralisation achievable with Glass Carbomer technology,” commented GCP Dental CEO Lekhram Changoer. He invited visitors of the BDIA Dental Showcase to discover more about this revolutionary new restorative technology at booth G10/H13 inside the exhibition hall. Introductory packages to early adopters will be offered as well. More information about this range of products, as well as training videos, are available at the company’s website at www.gcp-dental.com.
LONDON’S Top 10 Attractions

1. BRITISH MUSEUM
   The world-famous British Museum exhibits the works of man from prehistoric to modern times, from around the world. Highlights include the Rosetta Stone, the Parthenon sculptures and the mummies in the Ancient Egypt collection. Entry is free but special exhibitions require tickets.

2. NATIONAL GALLERY
   The crowning glory of Trafalgar Square, London’s National Gallery is a vast space filled with Western European paintings from the 13th to the 19th centuries. In this iconic art gallery you can find works by masters such as Van Gogh, da Vinci, Botticelli, Constable, Renoir, Titian and Stubbs. Entry is free but special exhibitions require tickets.

3. NATURAL HISTORY MUSEUM
   As well as the permanent (and permanently fascinating!) dinosaur exhibition, the Natural History Museum boasts a collection of the biggest, tallest and rarest animals in the world. See a life-sized blue whale, a 40-million-year-old spider, and the beautiful Central Hall. Entry is free but special exhibitions require tickets.

4. TATE MODERN
   Sitting grandly on the banks of the Thames is Tate Modern, Britain’s national museum of modern and contemporary art. Its unique shape is due to it previously being a power station. The gallery’s restaurants offer fabulous views across the city. Entry is free but special exhibitions require tickets.

5. THE LONDON EYE
   The London Eye is a major feature of London’s skyline. It boasts some of London’s best views from its 32 capsules, each weighing 10 tonnes and holding up to 25 people. Climb aboard for a breathtaking experience, with an unforgettable perspective of more than 55 of London’s most famous landmarks – all in just 30 minutes!

6. SCIENCE MUSEUM
   From the future of space travel to asking that difficult question: “who am I?”, the Science Museum makes your brain perform Olympic-standard mental gymnastics. See, touch and experience the major scientific advances of the last 300 years; and don’t forget the awesome Imax cinema. Entry is free but some exhibitions require tickets.

7. VICTORIA & ALBERT MUSEUM
   The V&A celebrates art and design with 3,000 years’ worth of amazing artefacts from around the world. A real treasure trove of goodies, you never know what you’ll discover next: furniture, paintings, sculpture, metal work and textiles; the list goes on and on… Entry is free but special exhibitions require you to purchase tickets.

8. TOWER OF LONDON
   Take a tour with one of the Yeoman Warders around the Tower of London, one of the world’s most famous buildings. Discover its 900-year history as a royal palace, prison and place of execution, arsenal, jewel house and zoo! Gaze up at the White Tower, tiptoe through a medieval king’s bedchamber and marvel at the Crown Jewels.

9. ROYAL MUSEUMS GREENWICH
   Visit the National Maritime Museum - the world’s largest maritime museum, see the historic Queen’s House, stand astride the Prime Meridian at Royal Observatory Greenwich and explore the famous Cutty Sark: all part of the Royal Museums Greenwich. Some are free to enter; some charges apply.

10. MADAME TUSSAUDS
    At Madame Tussauds, you’ll come face-to-face with some of the world’s most famous faces. From Shakespeare to Lady Gaga you’ll meet influential figures from showbiz, sport, politics and even royalty. Strike a pose with Usain Bolt, get close to One Direction or receive a once-in-a-lifetime audience with Her Majesty the Queen.
UK adults believe that correction of their smile improves confidence

• A UK survey commissioned by the British Dental Health Foundation and dental company Align Technology has found that over a quarter of people interviewed were dissatisfied with their smile. In addition, the majority of the respondents felt that their confidence would increase were their smile to be corrected. However, one-third were not aware that it is never too late to have one’s teeth repositioned.

The survey established that 27 per cent of Britons surveyed were unhappy with their smiles and felt that their imperfect smile had had a negative impact on certain aspects of their life. The majority of the respondents (70 per cent) stated that they never smile in photographs owing to their unattractive smile, and 45 per cent reported that they have very low confidence. About 10 per cent reported that their crooked smile had had an effect on their relationships.

When asked what aspect of their life would improve were their smile to be corrected, 76 per cent of the respondents said that they think that their confidence would increase. Almost 20 per cent said that their relationships would improve and nearly 10 per cent believed that correction of their smile could improve their career and job prospects.

Despite these advantages, 33 per cent of the respondents were not aware that one can still have one’s smile corrected as an adult. The investigators also found that many patients did not seek orthodontic treatment because they did not wish to wear fixed braces.

With regard to sex differences, men were more concerned that visible braces would affect their career and relationship prospects than women were. Female respondents avoided wearing fixed braces because they were concerned about their self-confidence and risk of embarrassment.

However, there is a number of alternatives to conventional orthodontics now available today. For instance, manufacturer Align Technology offers Invisalign treatment, a clear alternative to metal braces. In contrast to fixed braces, the company’s removable aligners have no wires or brackets and are nearly invisible. According to the company, 2.5 million people worldwide have undergone treatment with such aligners, including a considerable number of celebrities, such as singer Justin Bieber, model Gisele Bündchen and actress Eva Longoria.

The survey involved 2,027 UK adults. It was conducted by communications agency Positive Communications as part of National Smile Month, the UK’s largest health campaign, which ran from 18 May to 18 June this year.

More English adults see NHS dentists

• The number of adult and child patients who visit a National Health Service (NHS) dentist is rising, but only the North of England has recorded an increase in the percentage of the population seen by a dentist compared with eight years ago, the latest figures show. The report also found an 18 per cent rise in the number of dentists performing NHS activity since 2006/7.

Just over 29.9 million adults and children (i.e. patients under the age of 18) in England saw an NHS dentist in the 24 months before June 2014, according to the Health and Social Care Information Centre (HSCIC). This is 1.8 million (6.3 per cent) more than the corresponding period—March 2006—when the reporting series began, and equates to 55.9 per cent of the population seen in the 24 months before June 2004 (compared with 55.6 per cent in the 24 months before March 2004).

However, while the total number and percentage of adults seen by June 2014 are higher than in 2006, the percentage of the child population seen has fallen by almost 1 percentage point.

NHS Dental Statistics for England, 2013/14, which provides information about patients seen by dentists and NHS dental activity in England, shows that 22.0 million adults (52.3 per cent of the adult population) had been seen in the 24 months before June 2014 compared with 20.3 million (51.5 per cent) in the 24 months before March 2006. The report also shows that 79 million children (69.2 per cent of the child population) had seen a dentist in the 24 months before June 2014, compared with 78 million (70.2 per cent) in 24 months before March 2006.

In terms of the four NHS regions in England (North, South, London, and Midlands and East), in the 24 months before June 2014, the total number of adults seen rose in all regions compared with the 24 months before March 2006, but only two—the North and the South—saw a rise in the percentage of the population seen (with falls in the London, and Midlands and East regions).

The largest percentage of the adult population seen was in the North at 57.6 per cent (6.9 million)—a rise of 1.1 percentage points (420,000) on 2006. The lowest was in London at 46.4 per cent (3.0 million)—a fall of 1.8 percentage points on 2006.

The total number of children seen rose in two regions, the North and London, compared with the 24 months before March 2006, but only the North saw a rise in the percentage of the population seen—at 3.1 percentage points (73,000).

The North also accounted for the largest percentage of the child population seen at 74.0 per cent (2.4 million). The lowest was in London at 63.0 per cent (1.2 million)—a fall of 0.8 percentage points on 2006.

Cochrane reports no evidence for superior long-term success of dental implants

• Promising superior clinical outcomes, plenty of new dental implants are launched to markets each year. A report by researchers from the Cochrane Oral Health Group in Melbourne and Manchester included a review of dental implants, which showed that there may be no differences in terms of long-term success, regardless of the shape of the implant or the material used.

The researchers reviewed randomised clinical trials conducted around the world from the group’s own database. From this, the only statistically significant difference observed was in relation to surface preparations, with smoother surfaces being found to be less prone to bone loss associated with peri-implantitis than were rougher surfaces. Smooth surfaces, however, appeared to fail early more often, according to the analysis.

Similar results were reported by the group in a series of earlier reviews, of which the first was published in 2002. In the most recent update, two of the review authors independently compared 38 different implant brands, which had been placed in 27 trials involving more than 1,500 patients, ranging from the early 1980s to early 2014. They said that, while their report provided no evidence that one specific type of implant proved superior in terms of long-term success to other types of implants with different characteristics, the results would have to be evaluated carefully owing to the low number of participants and short follow-up periods, which ranged from one to 10 years.

Overall, more than half of the reviewed trials proved to be at high risk of bias, they said.

“One well known weakness of such a meta-analysis of several small studies is that it cannot predict the results of a larger study,” re- marked Prof. Stefan Holst, Global Head of Research and Science at Nobel Biocare, one of the leading dental market leaders in dental implantology, on the report’s findings. “With 38 different implant types with highly diverse geometries, surfaces, prosthetic superstructures and clinical protocols applied—several of which are no longer in use—there are many variables. The meta-analysis dilutes any potential effect of a single relevant implant surface or implant characteristic in clinical practice today.”

A representative of Straumann also cautioned against the results, saying that the review reflects the fact that there is very little or no published clinical data on the majority of commercially available dental implants, since they have not been clinically tested. He emphasized that all of the implants avail- able today only 38 tested in ran- domised controlled clinical trials were considered worthy of review.

“With regard to our own implants, the review ex- cluded studies that we and others feel are important. Furthermore, it did not con- sider the large body of bench tests and pre- clinical trials that dem- onstrate significant differences in some cases,” the representative told today.