The luxurious Pennyhill Park Hotel and Spa in Surrey was the setting for a daylong symposium to mark the UK launch of Septodont’s new product, Biodentine, last month.

More than 80 key opinion leaders and leading dentists from across the country came to hear how this cutting edge technology, which, for the first time, offers a bioactive substitute to dentine, could revolutionise their practice.

The symposium began with general manager of Septodont Holding Olivier Schillier introducing Biodentine as the product of a love story and a 12-year development into a dentine replacement set to change the face of restorative dentistry. Prof Trevor Burke was next to the podium. Acting as chair for the day’s proceedings, Trevor set the scene by discussing the change in thinking in caries management towards a more minimally invasive procedure where only a percentage of the caries is removed then a suitable material is used to seal in the remaining caries. He posed a question for delegates to ponder as they listened to the day’s speakers: Can one solution be a substitute for all restorative materials, ie MTA and amalgam?

Next to speak was Prof Gilles Richard, who is R&D manager for Septodont France and the developer of Biodentine. Prof Richard’s presentation, From Scientific Concept to Clinical Use, detailed the origins of Biodentine and the journey it took from conception to launch as a commercial product.

He explained that the goal to developing the product was to be able to treat many pathologies with a single solution. Biodentine began as an idea in 1998 when a dentist and a material developer contacted Septodont with the concept. Prof Richard then detailed the next 12 years as a whirlwind of development, testing and industrialisation before the present situation of launching Biodentine to market.

Prof Richard then went into detail about the composition of the product. He explained that it was an active biosilicate technology composed of tricalcium silicate. This is mixed with water to create the correct consistency.

Next to speak was Prof Pierre Colon, Head of Endodontics at Paris University. In his presentation Biodentine: a material worth discovering, he reviewed some of the clinical lab-based studies that had been undertaken. I must admit to his presentation being something akin to an advanced chemistry lesson for me with the amount of chemical formulae he showed, but his aim was to explain how Biodentine worked at a chemical level. He described the chemical reaction between the powder and...
water as similar to that of concrete and many comparisons in the studies he described were made to other materials (for example, ProRoot MTA).

After a fantastic lunch (with the amount of food available, I can see why the venue is the base for the England Rugby team for matches!) it was time to hear more about the use of Biodentine in practice. Prof Tim Watson, director of research at King’s College London Dental Institute and Head of Biomaterials Science and the Biomaterials, Biomimetics & Biophotonics Research Group, discussed Biodentine: the new dynamic, bioactive, interface with the dental tissues. He explained that he had been working with the product for about 10 months, and was interested how biomimetic it was especially in the field of restorative dentistry and carries management.

He looked at how Biodentine interfaced with the natural tooth surface as it settled into the mouth after placement. He explained that there was some form of remineralisation that can be seen. In addition, the product lays down good reactionary dentine when reacting with the pulp. His main message said: ‘it will work with caries – so get using it!’

Next up was Prof Gilles Koubi from the University of Marseilles. His presentation, Biodentine: a universal material: clinical applications and clinical cases, was a very entertaining look at some of the cases where he had used the product during trials between 2005-2010. Some of the indications where he had used Biodentine included:

- **Direct Composite Restoration** – Prof Koubi explained how after using it as a dentine substitute in this case, the restoration fractured at 16 months and he re-restored it by leaving the Biodentine where it was and putting new composite around.
- **Direct Pulp Capping**
- **Perforation Filling**
- **Inlays and Onlays**

Prof Koubi presented many cases where Biodentine had been used; always reminding the audience that at the time it was still very experimental and sometimes he may have used it just to see what it could do.

After a short break it was time for Dean of Liverpool Dental School, Prof Callum Youngson, to discuss Integrating Biodentine into undergraduate training. He put into context what was happening at undergraduate level and why introducing products such as Biodentine into the curriculum made sense; especially as the move towards minimally invasive dentistry at all levels meant clinicians were looking for solutions that ticked all the boxes of efficacy, compatibility and conservation of tooth structure. Prof Youngson stated that he could see the product having a place in teaching clinics around restorative and primary care.

He questioned why it should not be used at undergraduate level, after all, he said, what you learn at undergraduate level is what you are competent at. The fact that the product is technique insensitive and has a long setting time is a bonus for students who have no preconceptions about what to use, which gives a great learning platform.

The last clinical speaker, Dr Julian Webber, looked at the use of Biodentine in a specific discipline – endodontics. He began Biodentine, an Endodontic Perspective by detailing his six-month experience in using the product. He gave a very honest appraisal of Biodentine, discussing the advantages of a longer setting time of 10 minutes being beneficial to endodontists, but also that the fact that it is very dependent on how it is mixed was a potential problem. He showed some cases where he had used the product on and gave many practical hints and tips on using it in endo.