

On Friday the 14<sup>th</sup> of November I attended the Association of Dental Implantology Focus Meeting : Focus on Digital Implant Dentistry: The Present – The Future. The course covered how best to use Digital Technology to optimise the implant treatment work flow and make the treatment pathway safer, more pleasant, quicker and therefore cheaper for the patient, with the aim of bringing predictable implant solutions to a wider public. Here is my write up of the event.

## **What the Course Covered**

### **Current Digital Planning Strategies in Implant Dentistry**

Technological advances in 3D imaging (particularly Cone Beam Computed Tomography CBCT) have been accompanied by complementary advances in implant planning software, in CAD/CAM and in 3D printing and manufacturing technologies. These advances have brought improved diagnosis, safer and more predictable planning of implant surgery, guided surgery, the possibility of patient specific milled bone grafts, to name just a few of the exciting innovations. This presentation by Andrew Dawood of [Cavendish Imaging](#) explored the benefits, limitations and opportunities that may stem from an integrated approach to 3D imaging and planning.

### **Implant Impressions – How many Bits and Bytes are Necessary?**

Dr Tim Joda (Grietswald University) explored the link between digital technologies to facilitate a complete virtually based implant work flow. Digital implant impressions symbolise the link between the interface of implant surgery and the manufacture of the dental prosthesis. The superimposition technique of medical 3D media types offers the possibility to create a virtual dental patient!

### **Advances in the manufacturing techniques for the provision of the ideal implant prosthesis**

Here we explored how the link between digital imaging, CAD / CAM design and 3D printing is bringing bio-mechanical advances in prosthesis design and production.

## **How Digital Imaging is currently used at our practice**

- 1 Digital photos of a patient's mouth – At the initial consultation, images of the mouth are taken. These detailed images give an in depth understanding of the current condition of the mouth, clarify the patient's needs, illustrate potential solutions and allow excellent communication between myself as Implantologist and the patients referring dentist.
- 2 Digital X-Rays – these X-Rays analyse the suitability of dental implants by assessing in 2D the amount of available bone. They also detect the presence of any Oral Disease and the health / viability of remaining teeth as well as allowing detailed measurements prior to implant surgery
- 3 Cone Beam CT scans – These scans generate 3D digital images of people's jaws to allow accurate and safe planning of potential implant positions. This facilitates the production of accurate digitally constructed surgical guides for

safe and predictable implant placement. We have already acquired CBCT scanner.

- 4 CAD CAM Design - My team works closely with Morrison Dental Implants dental technicians who are at the forefront of dental technology, using digital scanning and CAD CAM to design and manufacture the replacement teeth which fit onto the implants. Find out more at [www.dentsplyimplants.com](http://www.dentsplyimplants.com).

### **Find out more**

Using the latest advancements in digital imaging has allowed my practice to remain at the fore front of Dental Implant technology. This investment allows for a shorter, less painful customer journey and ensures a standardised, and more predictable process.

If you would like to find out more about how we use Digital Imaging at our practice, please don't hesitate to contact me at [chris@chriswooddentalimplants.co.uk](mailto:chris@chriswooddentalimplants.co.uk).