

Keep on smiling

Replacing a full set of teeth is no easy task, says Dental and Implant Surgeon Jean Paul Demajo. He offers some tips on this specialised treatment

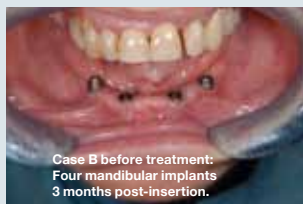
Reasons for replacing one's dentition



Case A after treatment: Definitive porcelain teeth in-situ.



Case A before treatment: Aerial view of Maxilla 2 months post-extraction.



Case B before treatment: Four mandibular implants 3 months post-insertion.



Case B after treatment: Construction of Porcelain bridge supported by the four implants.

- **Current teeth have persistent abscesses. Teeth have already undergone extensive work, including root canal treatment, and now require extraction**
- **Remaining teeth are mobile due to gum disease and cause discomfort on eating**
- **Unstable denture on eating and talking**
- **Psychologically traumatic due to long-standing edentulism (lack of teeth)**
- **Lifelong dream of having a perfect smile**

Replacing a full set of teeth could be a tricky affair. Important questions need answering. Firstly, what are the patient's main wishes and why does the patient wish to undergo this treatment?

Generally speaking in the upper or lower jaw, six implants are required to replace 12–14 teeth. Having said that, four implants may at times be used to replace 12 teeth, while eight implants would definitely guarantee fourteen teeth (normal number of teeth in each jaw). The conventional method for placing implants is changing to a more advanced computer-aided technique. Using this technology, CT scans are taken and the information downloaded onto an implant-planning programme. The information may be used to fabricate a surgical guide to the exact pre-planned implant placement requirements eliminating the need for any gingival incisions and suturing. This offers maximum comfort with no swelling or discomfort enabling the patient to return to his or her daily routine.

If the volume of bone present is not sufficient, then bone-grafting procedures may have to be undertaken. In the upper jaw, the maxillary sinuses are partly filled with bone grafting material. In this manner the implants are completely surrounded by bone, achieving excellent stability and allow for full osseointegration (fusion to bone).

In most cases the implants are placed at the same time as the bone graft is done. This avoids a second surgical sitting and halves the treatment time. In the lower jaw, bone grafting is rarely required. This is also thanks to the computer-aided implant planning technique, which allows for more precise

implant placement by avoiding important anatomical structures. Using this technique, implants are angulated allowing for an increase in the span and number of teeth, as well as reducing the overall number of implants required.

Once the implants are inserted in either of the jaws, four to six months are required for complete healing. During this time a removable denture may be used to replace the teeth. In a number of cases temporary teeth may be fixed to the implants on the same day as they are inserted in the jaw, offering the patient a fixed provisional dentition. These temporary teeth would be constructed of strong resin and offer good aesthetics. This form of temporisation is determined by the number of implants used as well as the quantity and quality of bone. After four to six months of complete healing, the temporary fixed teeth are removed, an impression is taken and the permanent fixed prosthesis is planned. The type of material used for the permanent fixed teeth may vary from a semi-precious metallic substructure to a metal-free zirconium substructure. The substructure is then coated with resin or porcelain teeth. Colour, shape and size are required to fulfill the patient's desired look. The set-up of the new teeth is tried in place and shown to the patient. This try-in stage allows for a few final adjustments before completion and fixation onto the implants.

Once the final set of teeth is fixed onto the implants the patient realises the importance of all the clinical time required to plan and execute the job. The hefty price tag is secondary to the irreplaceable comfort and aesthetics achieved!

Dr Jean Paul Demajo has trained in London and works in private practice in Malta

