

# Placing & loading of the implant

## Πρώτο Ραντεβού / Ιστορικό – Δεύτερο Ραντεβού / Σχέδιο Θεραπείας



- Information collection (medical history, patient expectations),
- Clinical review (oral hygiene and periodontal status, tissue examination),
- radiographic control (bone and anatomical area assessment),
- taking initial impressions (to create a study model),

They are the essential and fundamental elements of obtaining a successful treatment plan. It is a two-way process, which is the foundation for a proper therapeutic-surgical procedure to follow. Through this procedure, the intervening physician is informed about the incident, but also the patient about the procedure, the choices that can be made, and an initial economic assessment of the treatment.

In this point, the value of an x-ray imaging of the jaws (bone & soft molecules) has to be emphasized since the placing of the implant is based on them. the geometry (bone dimensions), the anatomical features (nerve pathways, sinuses, adjacent roots) and the bone density of the area are of interest in this process. **Cone Beam Computer Tomography (CBCT)** offers maximum help in providing information, and not only. With CBCT and digital casts of the patient through software programs, we can have the advantages of "Computer-Guided Surgery Implant Placement" by manufacturing a surgical splint for placing implant with the use of the 3D Printer. (see Digital Dentistry)

Panorama Dental Center, under the continuous training of its members and the application of innovative practices and applications, has integrated the procedures that Digital Dentistry offers in recent years in dental practice. At the same time it has invested in mechanical equipment and digital software, which give the opportunity to provide the benefits of this innovative process to its patients. (see "MACHINES & APPLIANCES")

TREATMENT PLAN. The result of the study and analysis of all the data and information leads to the treatment plan, which involves solution to each patient's dental problems. They are fully customised solutions, cost-based and scientifically documented.

These are presented to the patient, discussed and then decisions are made on the therapeutic approach.

### **Implant Placement - Selection & Loading Time**

Implant placement is a simple procedure performed in the dental clinic with the appropriate equipment under the influence of classical dental local anaesthesia used in daily dental practice.



The implantation, with respect to the time when the natural tooth that it replaces was extracted, can be made at the same appointment with it (immediate placement) or later (later placement).

The second choice is either why the patient arrives in the clinic after a period of extraction of the natural tooth, or because the extraction is performed but the implant is placed later on , mainly due to the creation and remodelling of the bone area (Guided Bone Regeneration - GBR). (see "Guided Bone Regeneration").

Immediate placement of the implant, when it is selected, reduces the interventions from two to one (extraction and placement made at the same appointment), as well as the total recovery time (especially when the choice of the treatment plan involves "direct placement" and "direct charging"). The choice between direct and delayed placement of the implant is judged by:

- the tooth that will be extracted (usually not direct placement after extraction of multirooted teeth)
- the volume and geometry of residual bone and the proximity of various anatomical elements (if great bone regeneration is needed or there is no bone sufficiency that will give a sufficient initial stability to the implant)
- the presence or not of inflammation and periodontal lesions of the area as well as the general oral hygiene.

Loading the implant (ie, attaching the implant to the implantable prosthetic structure and participation to the chewing function) can be done at a second time, with a time distance from

the implant placement date. Thus, in the first year the implant is placed in the bone to achieve its osteointegration with it.

The time it takes to make osteointegration is about 3-5 months (lower - upper jaw). This time depends on the initial stability that the bone area will provide to the implant, which can be tested during placement with an ultrasound system.

After implant placement, there are two possibilities. The first option is to cover the implant from the soft molecules of the area (gums), and at a second time (3 to 5 months after) to uncover the implant and proceed to the implant-prosthetic structure. Until then, the dental deficiency of the area is covered with a transitional-temporary prosthetic structure, mobile or immobile (partial denture, Maryland bridge).

The second option is immediate loading when the initial stability of the bone area is sufficient for this procedure. The transient-temporal prosthetic structure that will be bonded to the implant during immediate "loading" will have particular characteristics so as not to transfer chewing forces to the period of osteointegration until it is replaced by the permanent implantation crown. The immediate loading is chosen (when the initial stability allows) in the anterior aesthetic zone, as well as in the patients who wear full dentures. In the last ones, we can place either 2 or 4 implants or 2 or 4 locators which will be connected to the denture that the patient already has providing adequate support and restraint

Watch the relevant video, [here](#)