Creating the ideal treatment plan for implant placement

The MGUIDE Guided Implantology System helps ensure implant survival rates remain high

By MIS Implants Technologies Staff

With the MGUIDE Guided Implantology System (Fig. 1), a single CBCT scan and an impression of the relevant full arch is all that is required before the process may begin. A stone model and diagnostic wax-up of the patient are fabricated by the MCENTER for scanning and are displayed digitally on the CBCT data within the implant planning software. This allows us to see the current soft-tissue contour, the future prosthesis plan, the patient’s bone volume, the implants and even the abutments. With this information, we can now create the ideal treatment plan.

In fact, by using the surgical template, we can create a model of the post-operative condition, complete with analogs, prior to the surgery (Fig. 2).

By doing this, we can fabricate temporary components to be immediately loaded after implant placement, so the patient can go home having his or her teeth.

The surgical template is printed with the latest 3-D printing technology without any human intervention. It features a unique open design, which allows an optimal line of sight, as well as excellent irrigation. Within a few days, we can have the surgical template in your practice, ready for surgery.

Case planning

The latest CBCT scan data is used for case planning, allowing the location of the implant to be positioned with the precision of one-tenth of a millimeter. This reduces the risk of error tremendously and also the risk of damaging any proximal anatomical structures.

Because of the precise orientation, any bone replacement may be avoided. In situations where bone grafting is unavoidable, then the primary fixation of the implant can be strengthened with correct placement in the existing bone.

Clinical decisions such as this can be thoroughly discussed during the treatment planning stage.

Planning for implant placement with our system allows informed decisions to be made prior to the surgical procedure (Fig. 3).

This preparation helps ensure the implant survival rate remains extremely high.

By way of prosthetic-driven planning, actual surgery time can be reduced, and optimal implant placement results in simpler prosthetic work. Why? Because you can analyze the bone, the soft tissue and the proposed tooth placement during the planning stage. The ideal solution can be realized right from the beginning.

In overdenture cases, the axial positioning of the implants can be automatically made parallel. This allows better fixation of the prosthesis, resulting in better comfort and durability.

Surgery

Our newly designed MGUIDE Guided Surgical Kit and Tools Kit (Figs. 4, 5) work seamlessly within our system. Unlike traditional guided surgical kits, our system has eliminated the need for guidance keys or spoons. The drills and sleeves work together to center and stop at the precise depth and positioning that was planned. Our innovative drills are sequenced according to our implant lengths, so sleeve heights are not required to be raised or lowered to achieve accurate depth.

These features not only allow you to change implant sizes at the time of surgery but also to ensure that clearance is never a problem.

Raising the flap is not required, as tissue punches are provided to perform minimally invasive procedures. This means minimal or no suturing, faster healing time and esthetically pleasing restorative results, all of which lead to greater patient and clinician satisfaction.

The MGUIDE System goes beyond the guided surgical procedure, providing you with tools specifically designed to place the implants through the template. This ensures that the actual treatment goes precisely as planned, from pilot drilling to placement.

What makes the MGUIDE System so special?

We have created a system that simplifies the workflow for everyone involved.

The clinician now has the ability to responsibly plan his or her case using all of the resources available. Bone quality, tissue height and prosthetic planning information aid us in treatment planning, taking most of the guesswork out of the surgical procedure. We know going in what the final outcome should resemble, and from that knowledge, we create a precise and safe surgical plan that can be executed with the utmost ease.

Our tools are designed to allow you the most comfort and control during the procedure, vastly shortening actual surgery time.

This can allow greater patient satisfaction, minimal pain and the opportunity to treat more patients in one day. Shorter chair time equals more turnaround.

Being able to conceptualize the treatment plan and present it to your patient allows you to keep them informed about what is going to happen. This increases their comfort and enables them to be on board.

Our system allows you to map out the road to success. The collaborative efforts of MCENTER USA, the clinician and the lab allows all avenues to be explored and agreed upon with precise knowledge.