NobelActive™ –
Inventor’s perspective on this new direction for implants

Nobel Biocare launches a unique new implant with revolutionary features due to the advanced design of its implant body – NobelActive™.

For the clinician, NobelActive™ is indicated for all positions, but is especially effective in regions of diminished bone quality or quantity, due to its bone-condensing capability, capacity for shorter drilling protocols, and ability to change direction on insertion.

On the patient side, NobelActive™ offers a solution for difficult treatment situations and provides for quicker treatments, shorter healing times, and less invasive procedures.

The inventors of this radical design are Prof. Nitzan Bichacho and Drs. Ophir Fromovich, Benny Karmon, and Yuval Jacoby. For first-hand insight, Prof. Bichacho shares his experiences in developing and using NobelActive™.

“Before being sold to Nobel Biocare, this implant design has undergone more than three years of study and has been placed thousands of times, with equal – more often – better results than traditional implants,” claims Prof. Nitzan Bichacho, “There is no doubt the system will benefit even further from the enhancements introduced by Nobel Biocare.”

Prof. Bichacho refers to the well-proven TiUnite® surface and grooves – Groovy³,⁴ – on the implant threads. The TiUnite® surface has been documented to improve osseointegration, promote soft tissue seal around the implant, and increase the esthetic result of implant rehabilitations.

The NobelActive™ implant has a variable thread profile that becomes wider vertically and shorter horizontally, from bottom to top; the core of the implant forms condensing lines, unlike the linear profile as is the case with contemporary tapered implants.
Easier insertion and greater initial stability

In the apical region, the implant has a pronounced tapered body with sharp threads, which facilitates its insertion into minimally prepared sites.

The apical region is followed by a sequence of variable thread units that allow easy insertion and gradual bone condensing, resulting in excellent initial implant stability especially in very low bone density.

The implant has a spiral tap extending along more than half of the implant length. This tap substantially increases the penetration of the implant.

The coronal region, adjacent to the threaded collar is tapered coronally, in all but the narrowest of implant diameters, allowing elastic relapse of the bone over the implant head.

Furthermore, a groove has been machined at the lower part of the thread flank and two circumferential grooves have been placed around the implant neck. Grooves enhance the stability of the implant, because bone forms faster to threads with grooves than without.

All NobelActive™ implants feature TiUnite® on the threads and collars, which produces better osseointegration and Immediate Function™ characteristics.\(^5,6\)

Multicenter studies on the NobelActive™ implant are currently ongoing and show excellent results in support of bone remodeling, as well as implant- and soft tissue stability.\(^7,8\)

Fewer drilling steps

The complete NobelActive™ design produces a self-drilling, maneuverable, conical implant: a “double corkscrew” form, with a narrow core and sharp horizontal threads, which often requires less site preparation and minimizes bone and soft tissue trauma. This design also offers trained clinicians the ability to reorient a NobelActive™ implant during insertion, when necessary.

“These implants can be placed like any contemporary tapered implant,” says Prof. Bichacho, “The ability to redirect it on insertion is an added feature that makes it possible to place an implant and load it in sites with limited or diminished bone quantity.”

In areas of limited bone, the clinician is able to begin insertion of a NobelActive™ implant at an angle where more bone exists; during final torquing, of the implant is redirected to the desired final position.

The NobelActive™ system lineup consists of internal (2-piece) configuration, in 3.5, 4.3, 5.0mm implant diameters and 10, 11.5, 13, 15mm lengths, and are applicable in all indications.

Fig. 1
Extraction of tooth and preparation of the fresh socket follows regular procedures
Fig. 2
Penetration of the palatal wall in the apical third of the socket, with the Twist Drill w Tip 2mm

Fig. 3
Drilling continues while gradually changing the direction to a more vertical direction

Fig. 4
Insertion begins at the same angle as initial drilling

Figs. 5 and 6
Insertion continues while gradually changing the angle until final optimal position is achieved
**Training and pre-launch**

NobelActive™ is a sophisticated implant and Nobel Biocare recommends that even experienced implant clinicians attend a NobelActive training course. Therefore in 2007, Nobel Biocare initiated a pre-launch of NobelActive and offered special training courses for clinicians interested in using this implant. The official launch of NobelActive, including a full spectrum of training courses, occurred on May 15, 2008.

**Important information regarding Nobel Biocare solutions**

Nobel Biocare strongly recommends caregivers always go through special training before undertaking a new treatment method.

Furthermore, clinicians should always work with an experienced colleague the first few times they employ a new treatment method. Nobel Biocare has a global network of mentors available for this purpose.

Nobel Biocare provides a wide range of courses for various levels of knowledge.

For more information, please visit [www.nobelbiocare.com](http://www.nobelbiocare.com).

**References:**


5. Schüpbach, op. cit. pp. 36-43.


