



The **Bio** Mechanical **Implant** 

**Implant**line



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## **CONICALGRADE®**

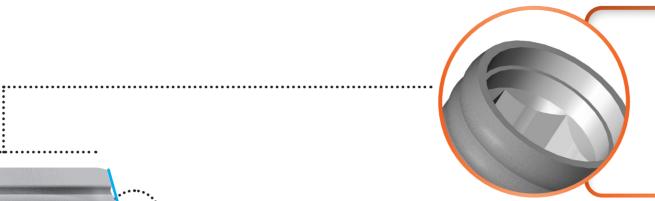
## The Bio Mechanical Implant

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The external diameter has an inclination of 6° at the vertices

The diameter of the core has an inclination of 6° at the vertices

Tapered neck



#### CONNECTION

The connection of the **Conical Grade** dental implant is unique for the entire implant line and is an internal hexagon with a double cone connection, the taper is 4° at the vertex. The conical closure has a size that allows the application of the concept of PLATFORM SWITCHING.



#### **CORTICAL COLLAR**

In the coronal area of the implant, the recesses of the cortical collar are sized to ensure that the implant is properly distributed of masticatory loads. The cortical recesses are located along the tapered part of the implant collar and have a rounded morphology.



### **NEST-SHAPE®**

The geometry of the coil is important in the bone healing phase: the double concocivities of 25 microns on the entire coil and on the body of the implant considerably extend the contact surface with the bone, thus influencing the primary distribution of the bone itself in the newly formed bone.



#### MACRO GROOVE

**Conical Grade** implants are designed with three Macro Grooves. During the insertion of the fixture, the cutting macro grooves collect portions of bone and preserve it.

# NEST-SHAPE®

The main characteristics of the coil, thanks to the new **Nest-Shape®** morphology, highlight very relevant biological and biomechanical functions.

The geometry of the coil is important in the bone healing phase: the double concavities of 25 microns on the entire coil and on the body of the implant greatly extend the surface of contact with the bone in such a way as to influence the primary distribution of the bone itself in new formation. In fact, the first osteoblasts, vessels and bony trabeculae are concentrated primarily in the concavities of the coils and only later, 30 days after the insertion of the implant, can a homogeneous distribution on the implant surface be observed.

Osteoblastic proliferation is confirmed by increased al-caline phosphatase formation and the presence of PGE2 and TGF-beta. The concavities, in addition to generating benefits in the healing phase, allow a significant reduction in the cutting section of the bone, making the coil, despite its height of 0.5 mm, atraumatic for the implant socket. The **Nest-Shape** coil has a profile with a constant pitch along the entire length of the implant.

Specifically, the pitch, measuring 0.9 mm, makes the device versatile and significantly reduces the insertion time. The **Nest-Shape®** coil has the particularity of having 3 grooves inside its profile. The grooves, made with a radius of 0.25 mm, allow a considerable reduction in the cutting section of the coil and significantly increase the osseointegration surface.

Another important feature of the **Nest-Shape** coil consists in the insertion phase of the fixture into the implant socket where the coil mechanically clings to the medullary bone.

The implant site, as per protocol, must be prepared with specially designed drills, thus allowing the blood to flow and distribute over the entire body of the implant, stimulating a rapid formation of young and well-oxygenated blood clots. The **Nest-Shape®** coil has a constant depth along the entire length of the implant, except in the coronal area where, on the other hand, it is reduced.

