Quick Guide Surgical Procedure

Patent

01_Planning

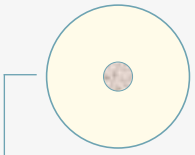
Measurement:

Always measure the soft tissue thickness **BEFORE** raising a flap or using the tissue punch.

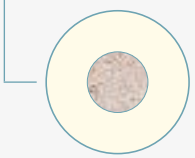
The soft tissue thickness will determine the surgical protocol.

Bone considerations:

Follow the entire surgical protocol. **Use every drill**.



Type I
Dense cortical layer throughout

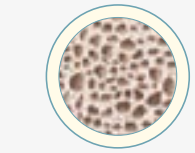


Type II
Thick cortical layer, dense cancellous core

Use the **thread former** for **2-3 turns** (2 mm). Don't use the cortical drill.

Type III
Thin cortical layer, dense cancellous core.

Underprepare the osteotomy



Type IV
Thin cortical layer, **spongious** core

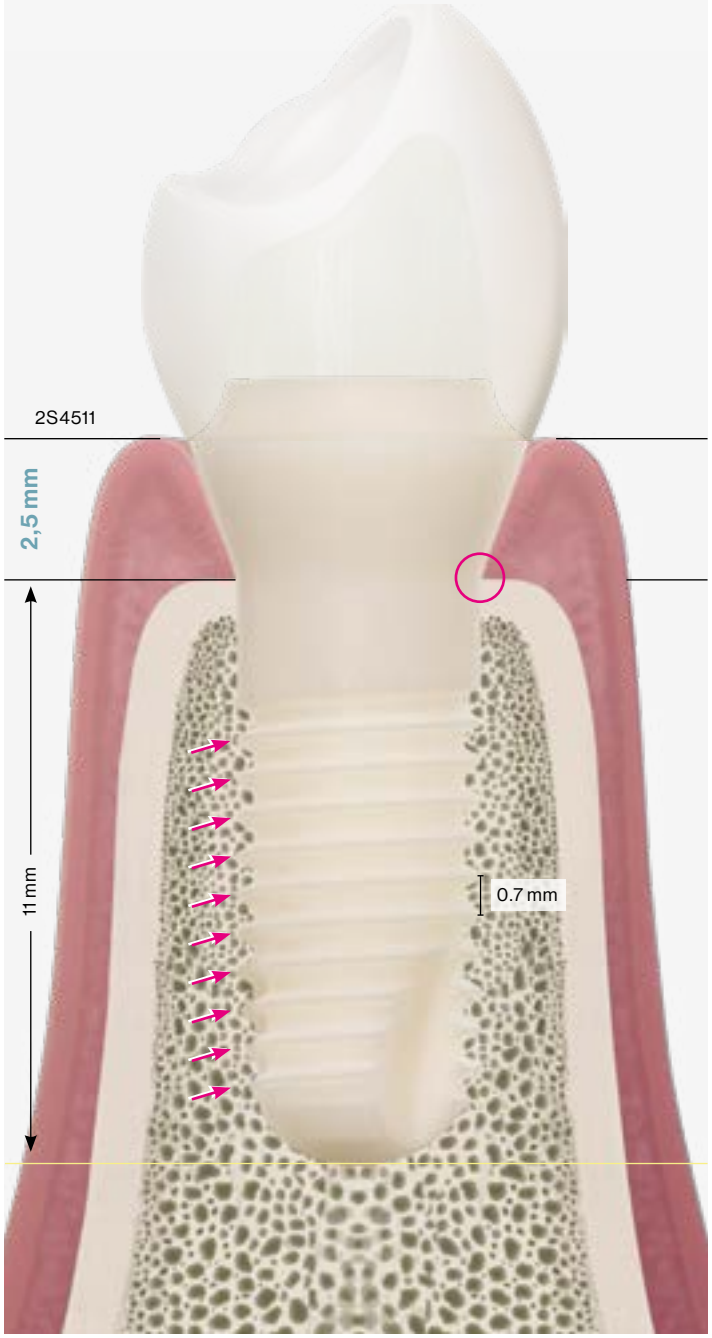
02_Implant placement

Position:

The crown-to-implant margin should always be positioned equigingivally.

No compression:

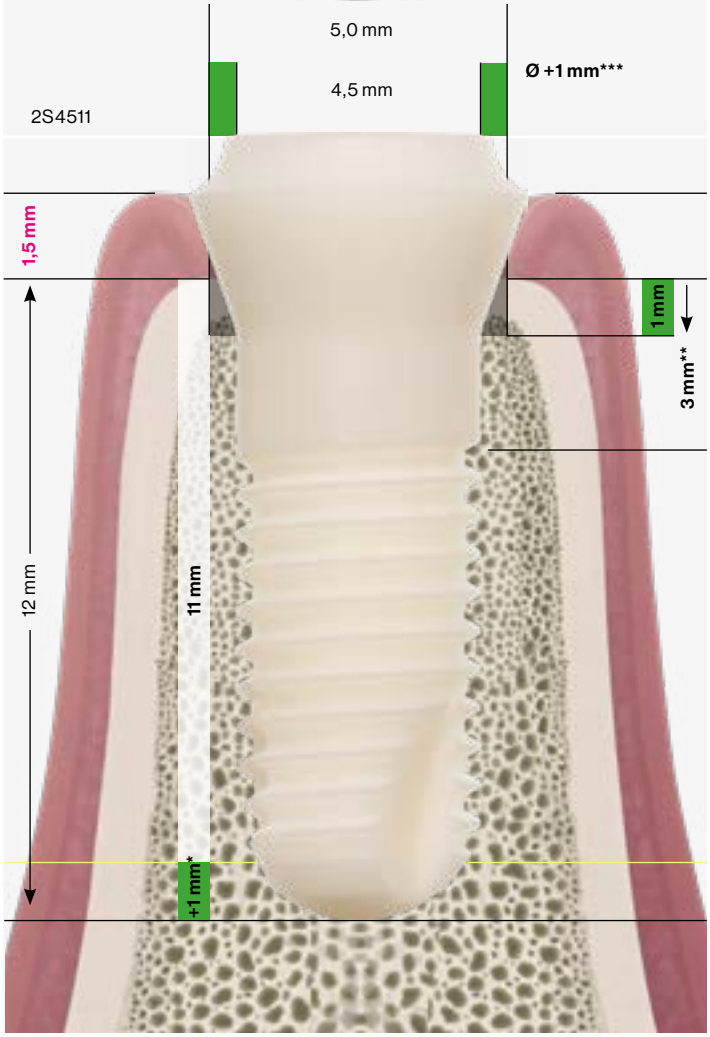
Correct vertical implant placement avoids cortical bone compression and ensures a uniform stress distribution in the bone in contact with the implant.



03_Gingiva Height

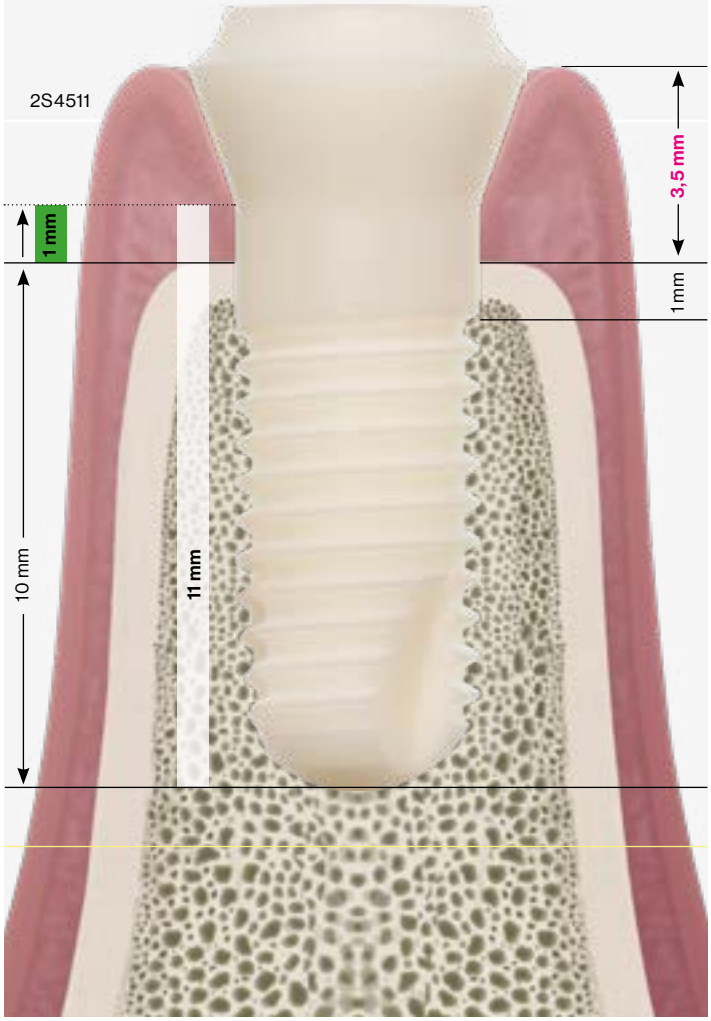
Thin gingiva (<2.5 mm)

- **Drill 1 mm deeper** than the planned implant length“ (This has to be done with the 2 mm drill since that is the last which cuts at the tip).
- Drill the associated Countersink **3.0 mm**** into the bone
- Drill the Countersink of the next larger diameter **1.0 mm***** into the bone



Thick gingiva (>2.5 mm):

- Drill **1 mm shallower** than the planned implant length.
- Use the cortical drill to prepare the bone **1.0 mm deep**.
- Place the implant so that **1.0 mm** of the non-threaded portion is in the bone, and **1.0 mm** is in the soft tissue

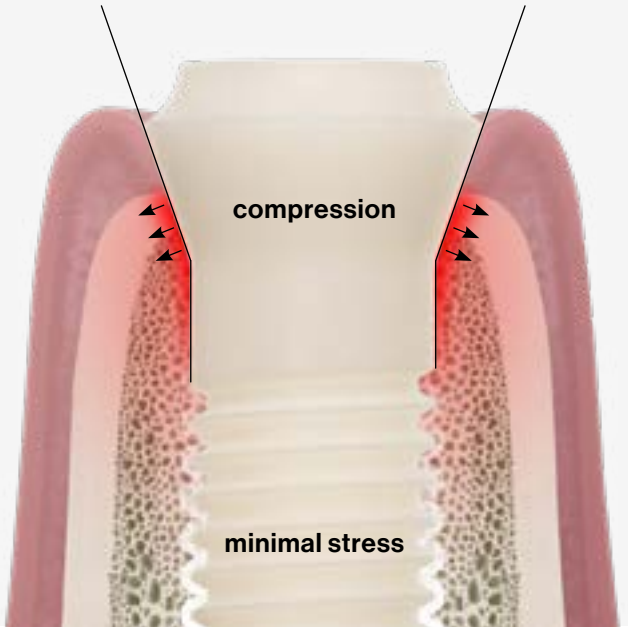


Patent

04_Caution!

Cortical bone compression:

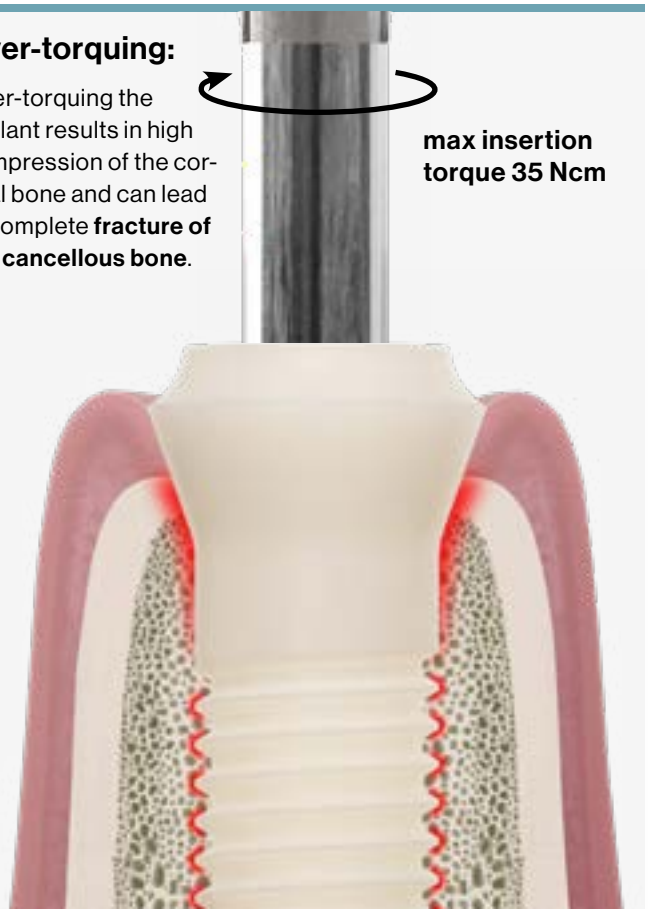
Deep implant placement without following the recommendations for thin gingiva will lead to **compression of the cortical bone** and minimal stress in the cancellous bone surrounding the implant.



Over-torquing:

Over-torquing the implant results in high compression of the cortical bone and can lead to complete **fracture of the cancellous bone**.

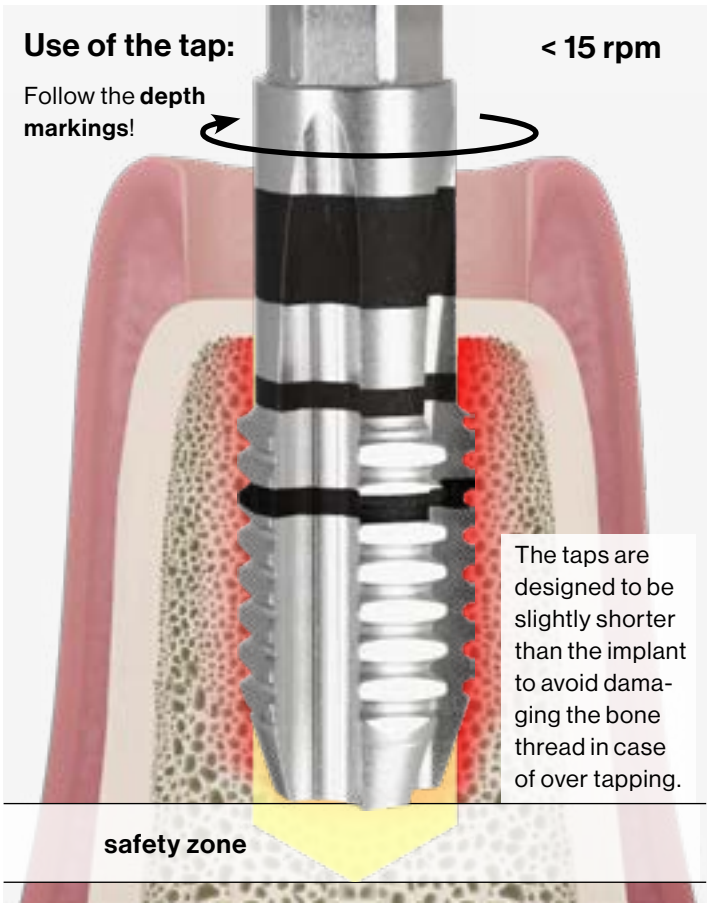
max insertion torque 35 Ncm



Use of the tap:

< 15 rpm

Follow the **depth markings**!

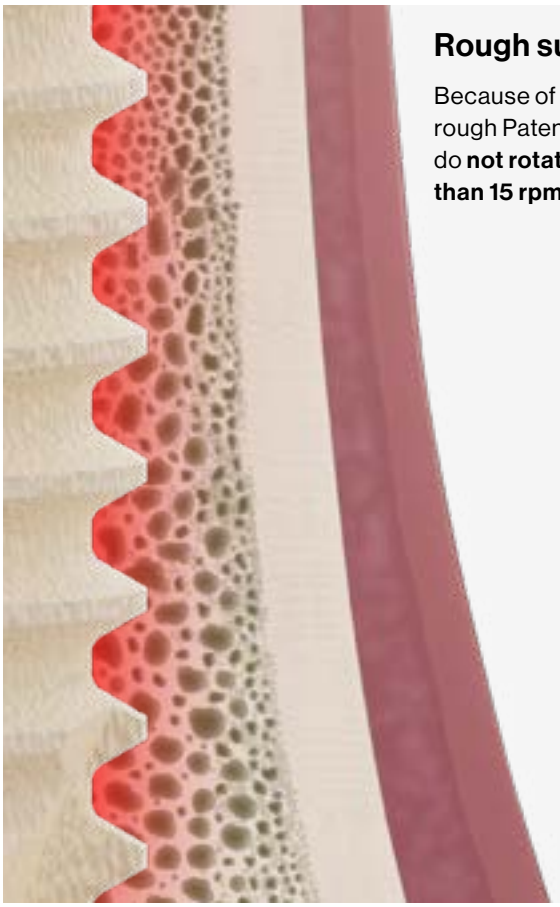


The taps are designed to be slightly shorter than the implant to avoid damaging the bone thread in case of over tapping.

safety zone

Rough surface:

Because of the super rough Patent™ surface, do **not rotate faster than 15 rpm**.



MKT275 2022/V01 EN

Zircon Medical Management AG
Churerstrasse 66
8852 Altendorf, Switzerland
info@zircon-medical.com | www.zircon-medical.com

Patent

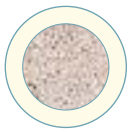
05_Drilling protocols

Type I
Dense cortical
layer throughout

Example 4.5 x 11 mm implant in different bone qualities

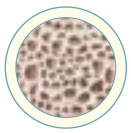
Type II
Thick cortical layer
dense cancellous core

Use full protocol

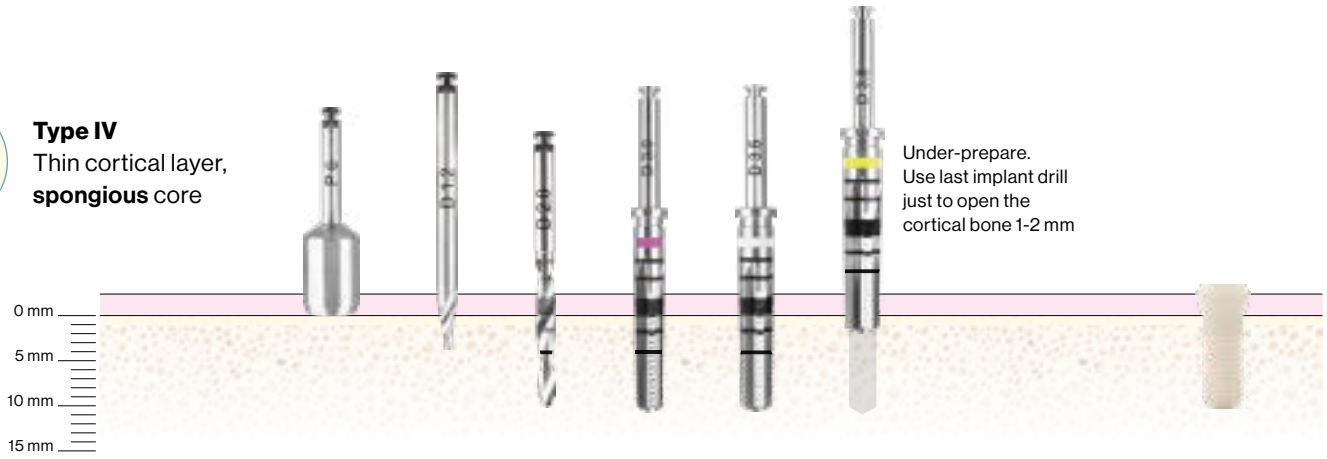


Type III
Thin cortical layer
dense cancellous core.

Prepare with the final implant drill. Use screw tap 2-3 turns. Approx 2 mm



Type IV
Thin cortical layer,
spongious core



Under-prepare.
Use last implant drill just to open the cortical bone 1-2 mm