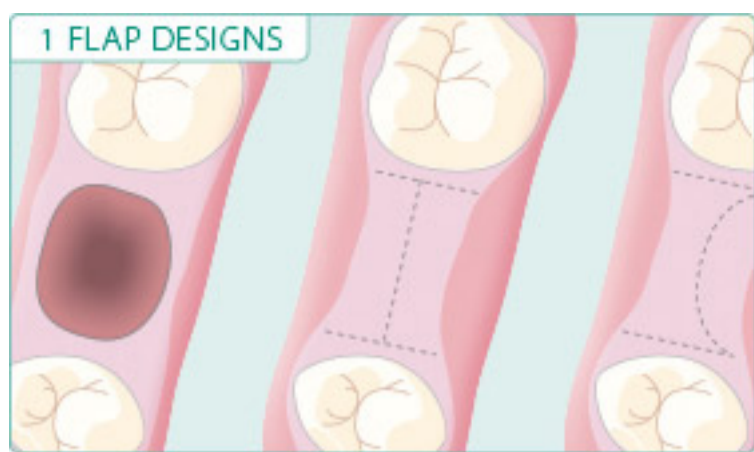


 **SHORT**[™]
IMPLANT

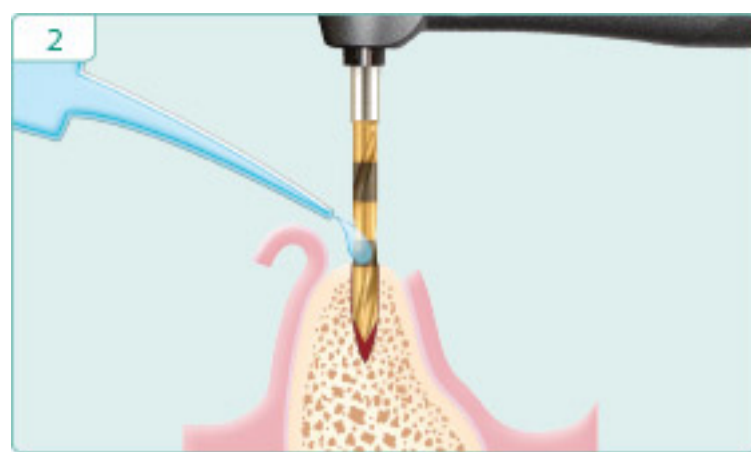


Two Stage Surgical Technique: Implant Placement

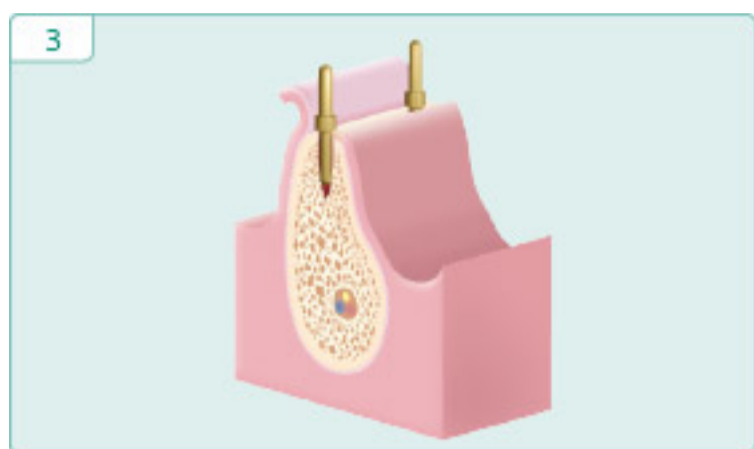
Two Stage Surgery Implant Insertion Technique



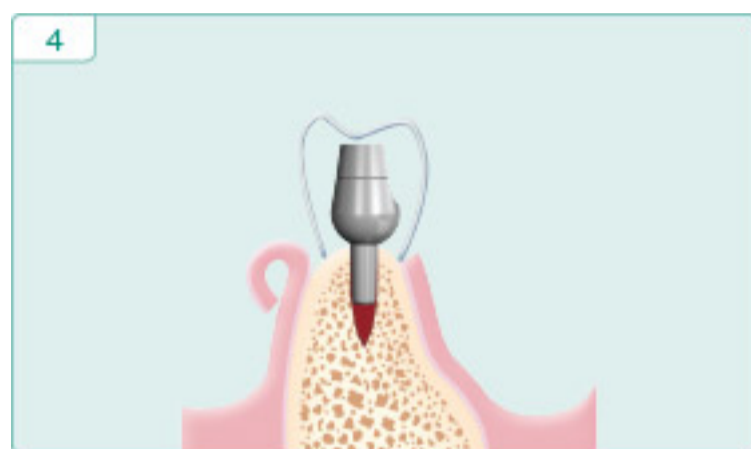
Extraction site, Envelope, Scalloped



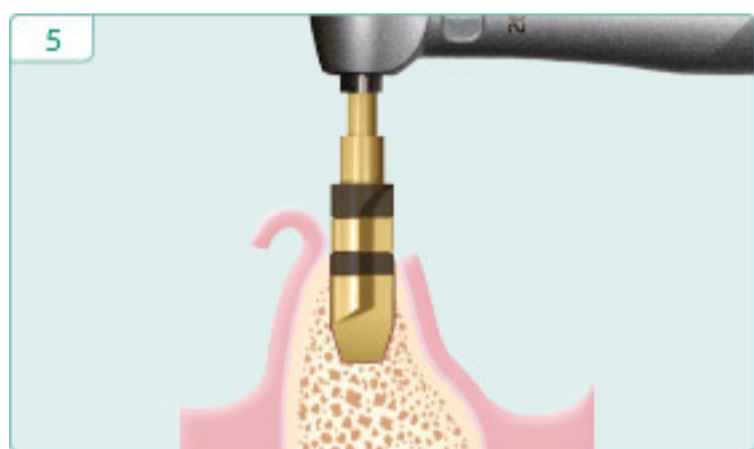
Drill 2.0mm pilot hole with external irrigation to a depth 2.0mm-3.0mm deeper than chosen implant when practical.



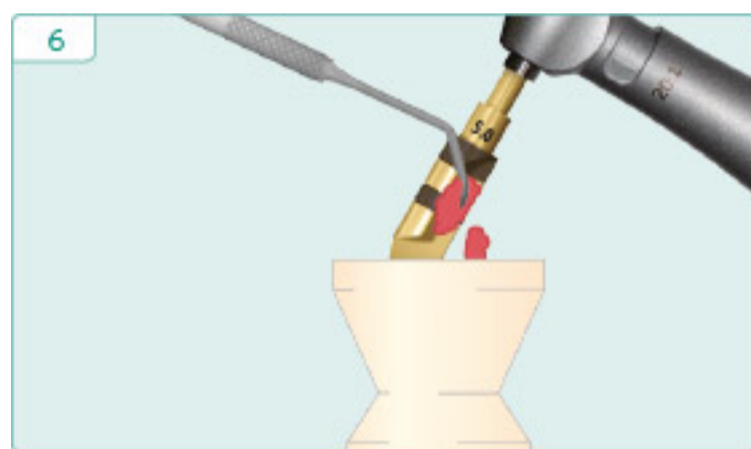
Use paralleling pins to facilitate alignment when placing multiple implants.



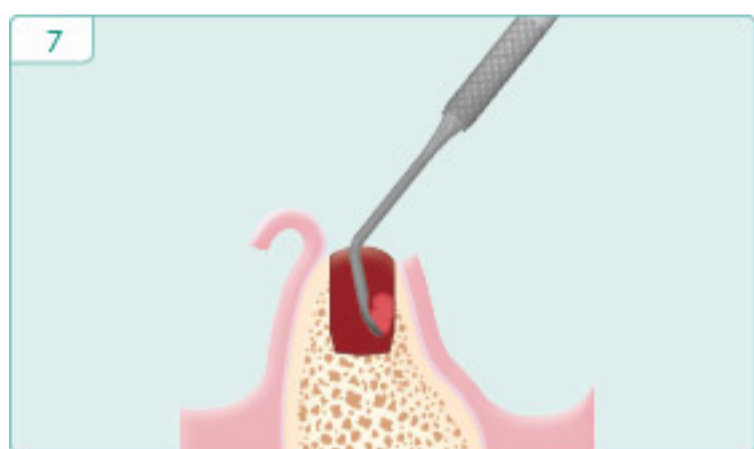
Place an abutment with a 2.0mm post into pilot hole and confirm appropriateness with a vacu-press template.



Widen socket with sequentially larger reamers **without irrigation** at a maximum of 50 RPM. In this case, a 5.0 x 6.0mm implant has been chosen so the final bur used also has a diameter of 5.0mm.



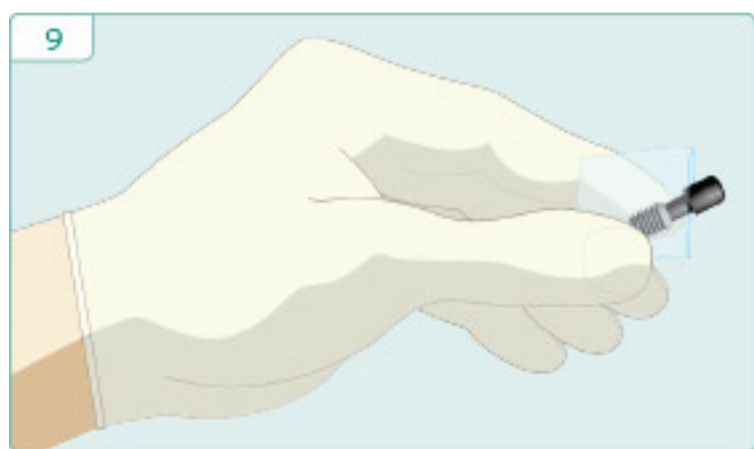
Place harvested autogenous bone, intermittently removed from the flutes of the reamer burs, into a silicone dappen dish for later use.



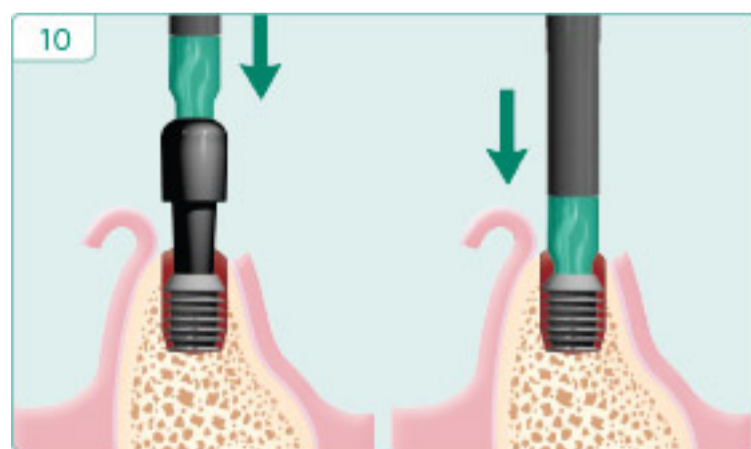
Harvest bone debris from reamer flutes and socket.



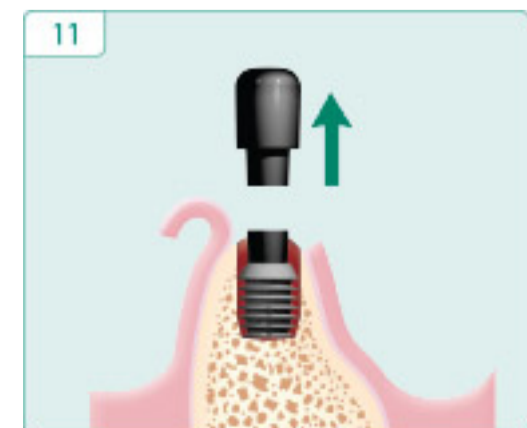
The implant's sterile blister pack is dropped onto a sterile tray prior to removing its Tyvek® backing before the implant's inner packaging is cut with a pair of scissors.



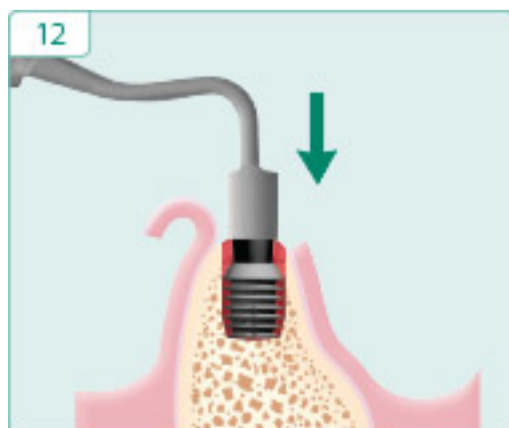
Remove implant from poly bag.



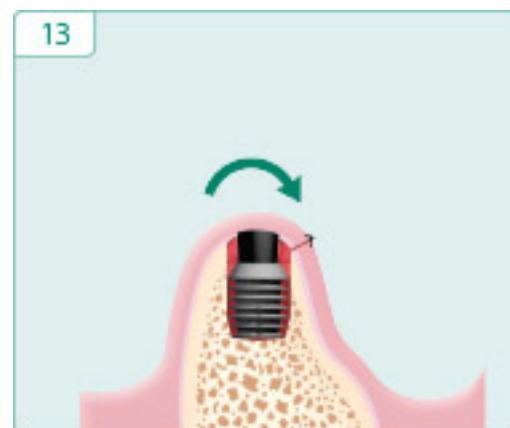
Seat implant by tapping gently on healing plug or directly into the implant well with an appropriate seating tip.



Cut healing plug. Ensure that no sharp edges remain that could irritate soft tissue.



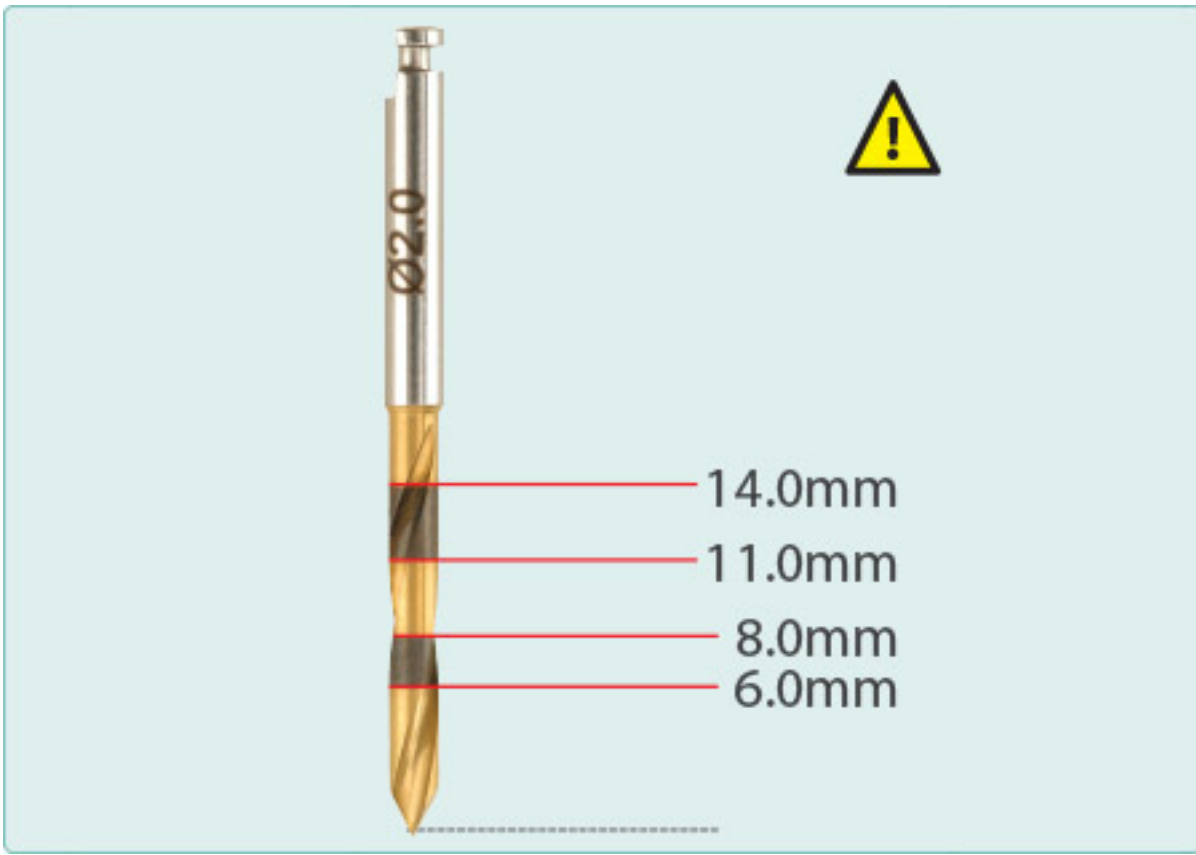
Place harvested bone graft over shoulder of implant. See Step #6 above.



Close and wait a minimum of ten to twelve weeks for osseointegration.

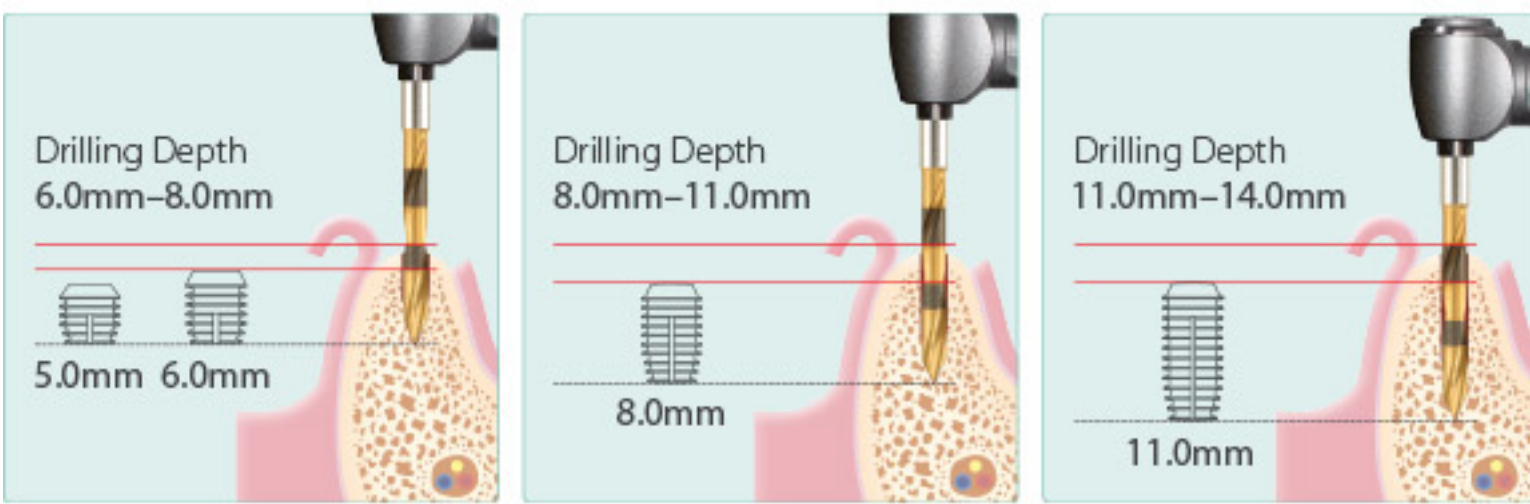
Two Stage Surgical Technique: Keys to Success

Pilot Drill



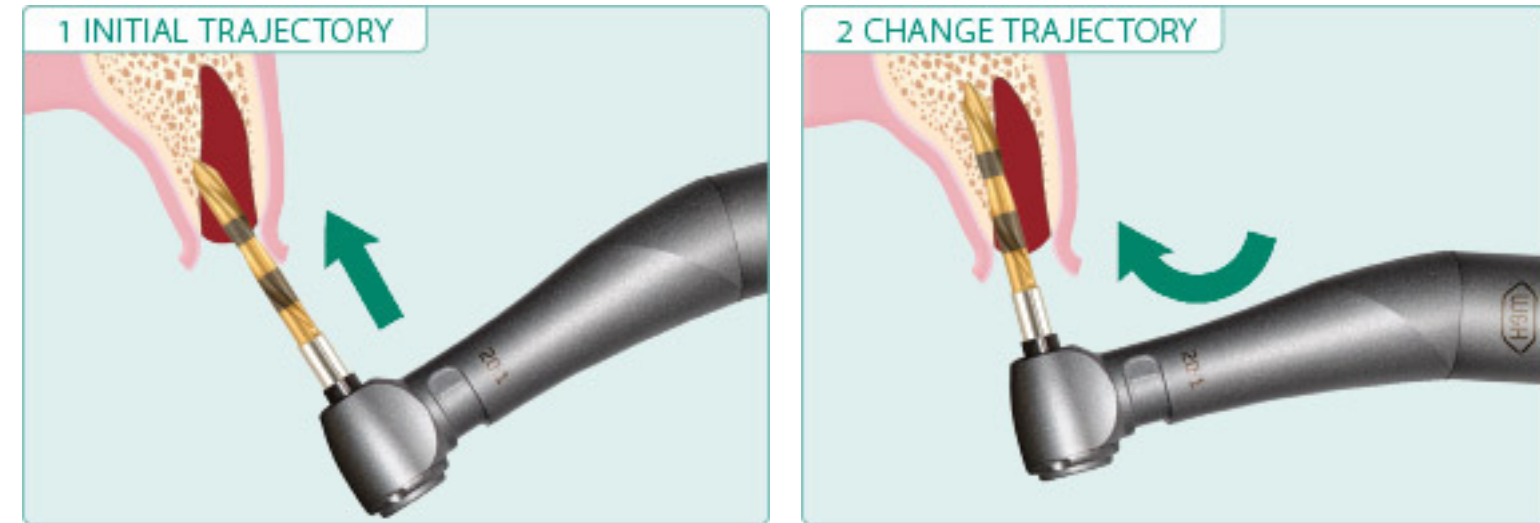
Prior to using a pilot drill, it is imperative that its markings are identified and understood. No assumption should be made about the height of the first marking.

Ideal Drilling Depth for Different Implant Lengths



If the trajectory is appropriate, continue drilling with the pilot drill to the depth marking, which will allow for the chosen implant to be seated below the bone. For aesthetic areas, the implant should be placed 5.0mm below the buccal gingiva. In non aesthetic areas, implants may be placed at the crest of bone level.

Maxillary Anterior Extraction Site



Initially drill into the palatal wall of the socket more perpendicularly than the proposed trajectory of the intended restoration.

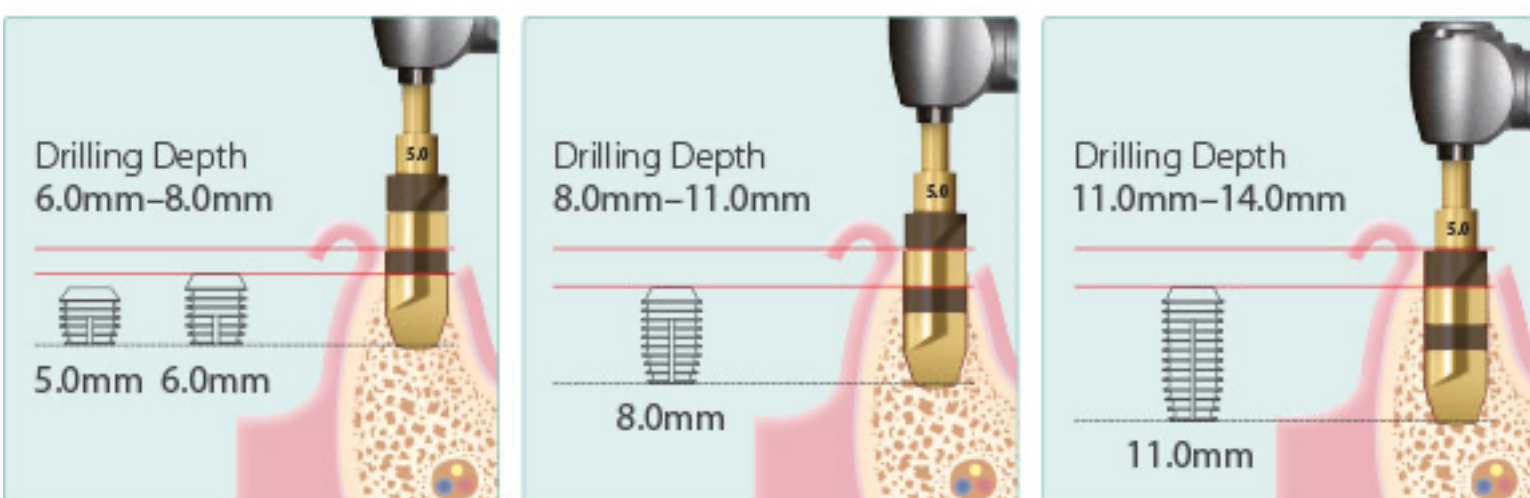
Immediately upon the pilot drill's engagement of the bone, change the drill's trajectory to be more parallel with the adjacent teeth and the proposed restoration.

Latch Reamer Markings



The reamers are used sequentially beginning with a 2.5mm diameter and ending with the diameter of the intended implant. Reamers have horizontal markings at 6.0, 8.0, 11 and 14mm, whereas older reamers may have different markings. It is imperative that the depth indicators on the latch reamers are known prior to surgery. No assumptions should be made about the height of the first marking on any latch reamer. If there is any doubt about the markings on any drill or reamer, take a measurement prior to using the reamer.

Ideal Drilling Depth for Different Implant Lengths

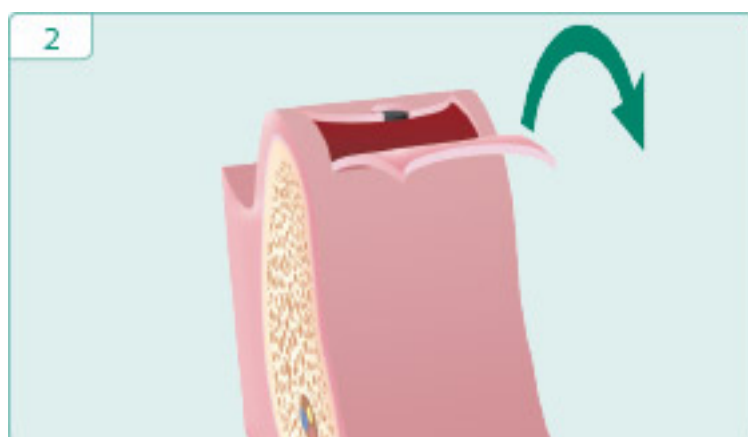


Drill to the depth that will allow the chosen implant to be seated 1.0-3.0mm below the crest of bone. For optimal aesthetics in the anterior region, the implant should be placed 5.0mm below the buccal gingiva.

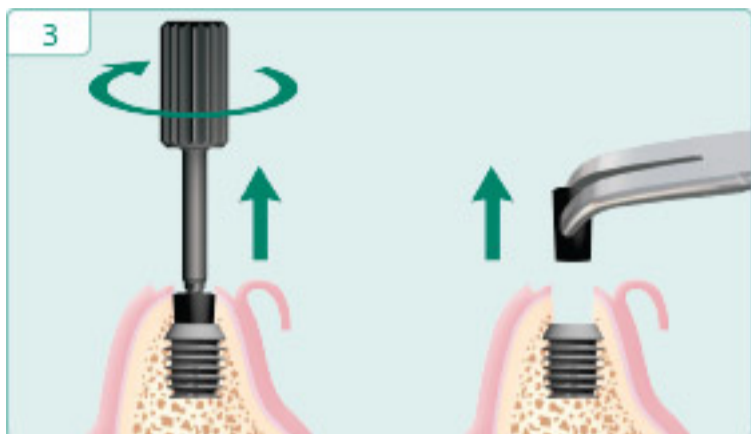
Implant Uncovering Technique and Placement of Abutment



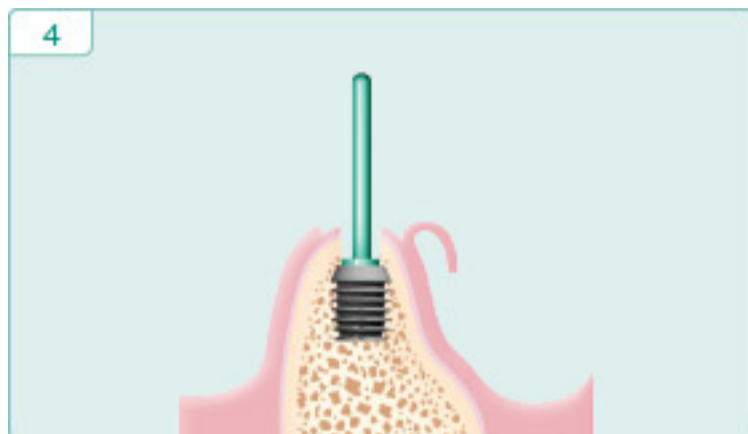
Expose the implant in aesthetic areas with a semilunar crestal incision.



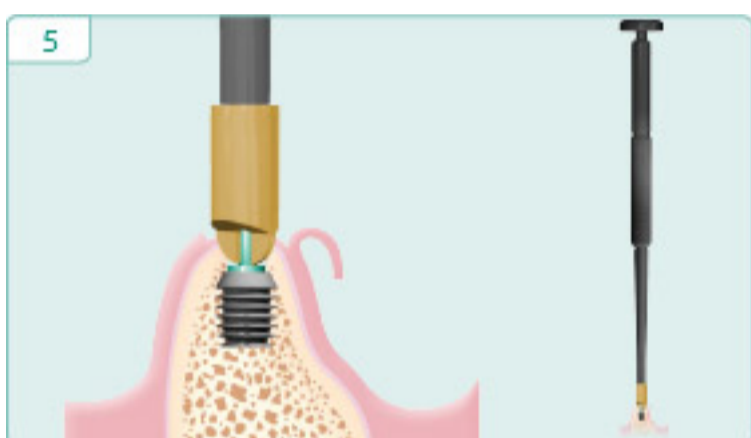
Make split-thickness buccal flap.



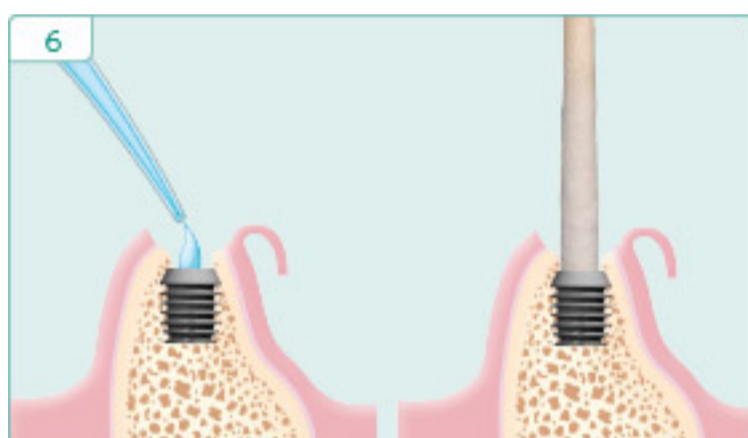
Remove healing plug with a healing plug removal instrument.



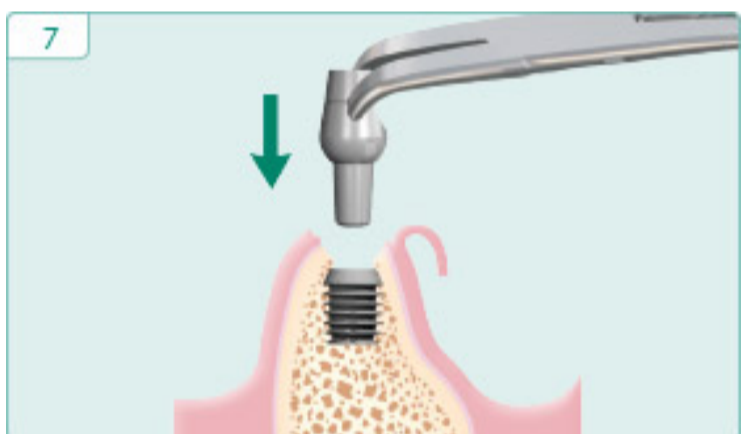
Place appropriate guide pin to check integration and angulation.



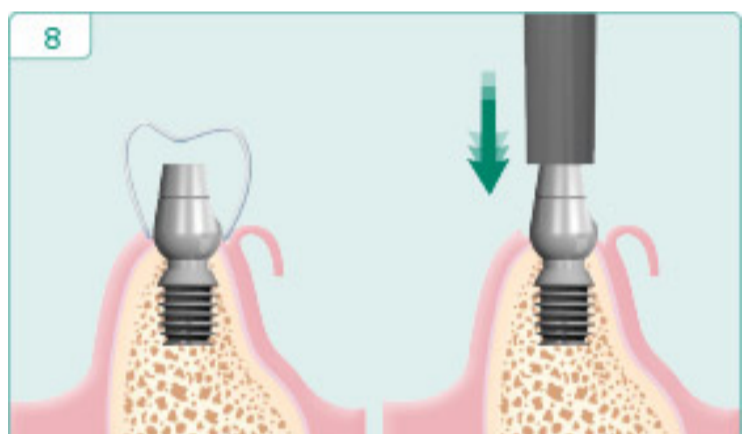
Remove excess bone with sulcus reamer corresponding to the chosen abutment with either threaded knob or straight handle.



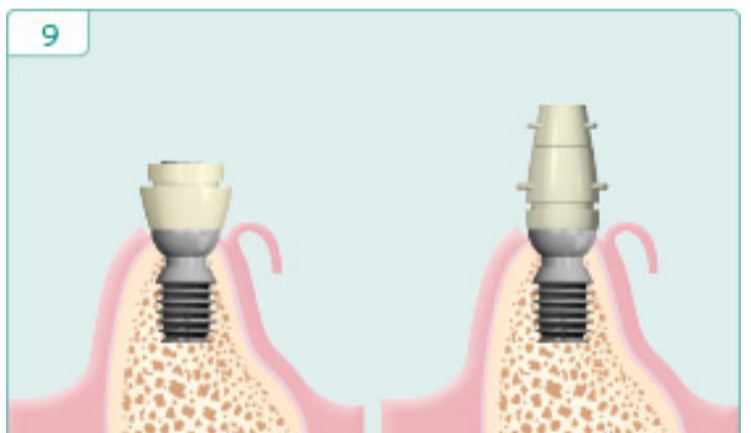
Flush and dry implant well with a cotton tip.



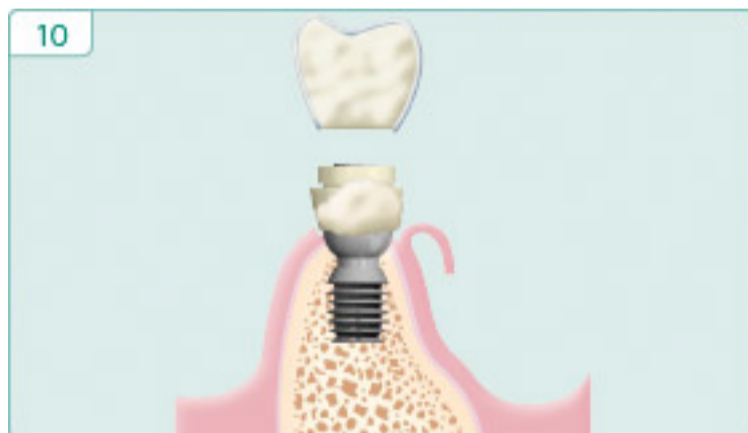
Insert chosen abutment.



Use a template to confirm appropriateness of abutment prior to engagement of locking taper connection, then tap on abutment in long axis of abutment post to engage locking taper.



Place an emergence cuff or temporization sleeve onto abutment and modify, if necessary.



Inject acrylic around emergence cuff or temporization sleeve and into the vacu-press template.



Place template to form temporary crown.

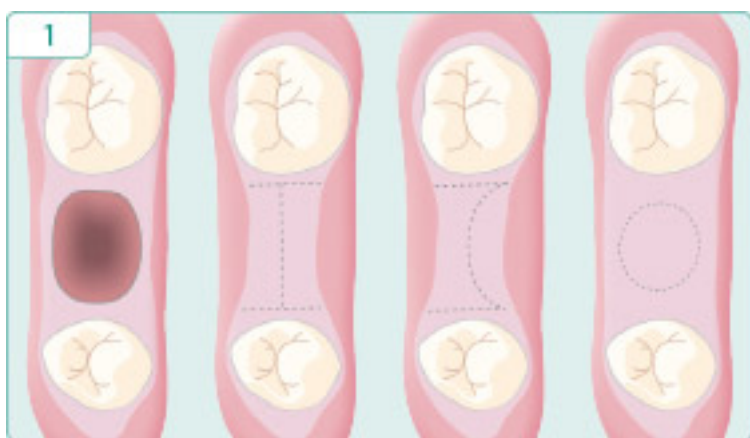


Remove and polish acrylic confluent with emergence cuff or temporization sleeve to help form the gingival sulcus.

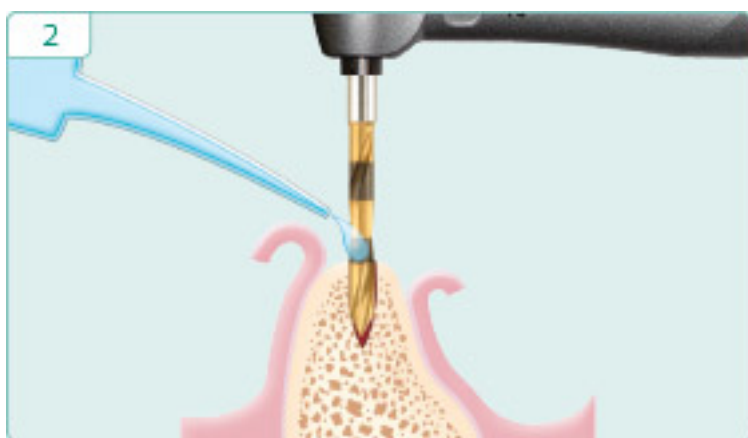


Wait for soft tissue healing prior to taking final impression.

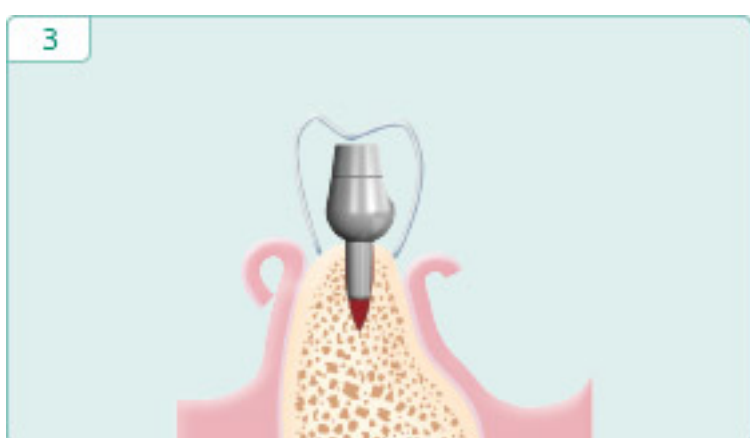
One Stage Surgery Implant Insertion Technique



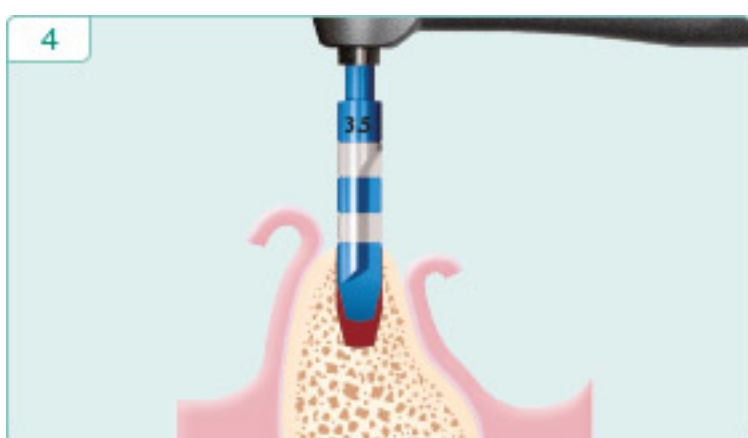
Extraction site, Envelope, Scalloped and Punch.



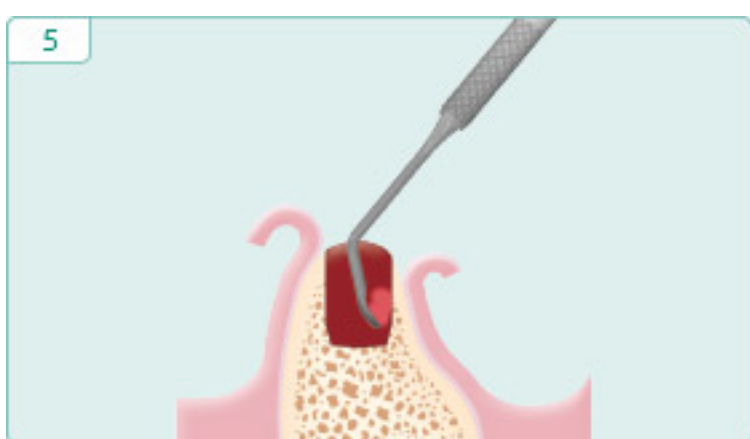
Drill 2.0mm pilot hole with external irrigation to a depth 2.0mm-3.0mm deeper than chosen implant when practical.



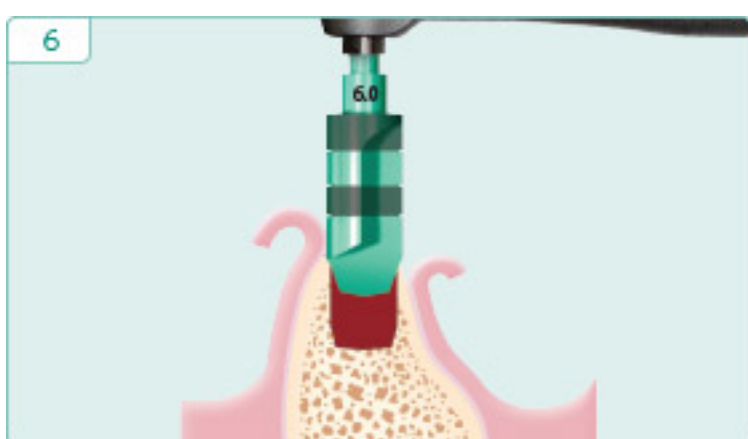
Place an abutment with a 2.0mm post into pilot hole and confirm appropriateness with a vacu-press template.



Widen socket with successively wider reamer burs without irrigation at a maximum of 50 RPM.



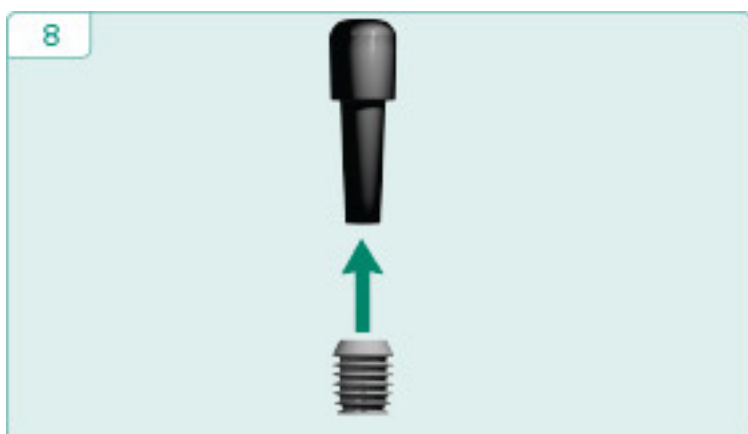
Harvest bone debris from reamer flutes and socket.



Countersink with larger reamers If the intended temporary abutment is wider than the osteotomy to allow for full seating.



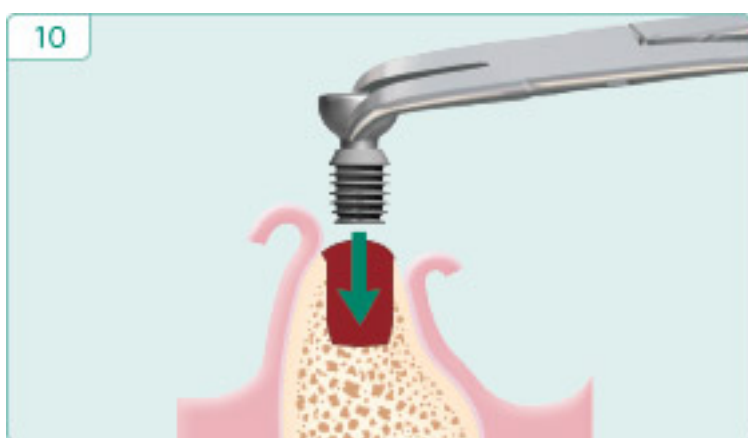
The implant's sterile blister pack is dropped onto a sterile tray prior to removing its Tyvek® backing before the implant's inner packaging is cut with a pair of scissors.



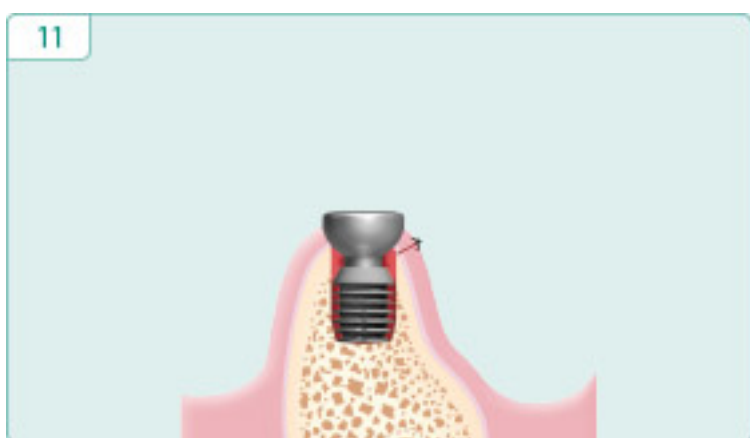
Remove black healing plug.



Replace black healing plug with appropriate temporary abutment.



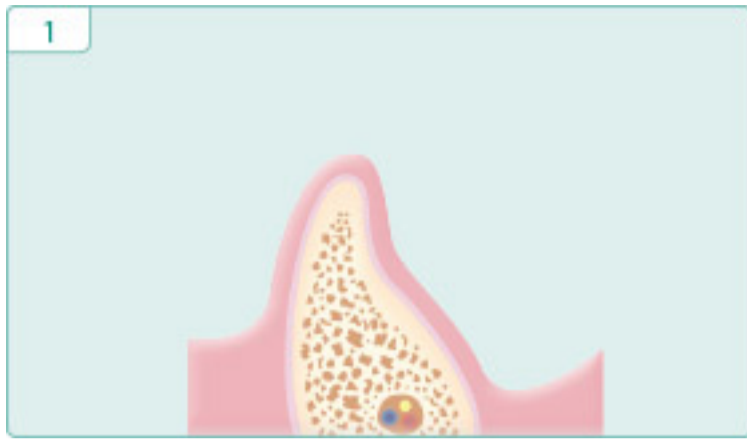
Insert implant with abutment into socket.



Trim tissue if necessary. Wait for a minimum of 10-12 weeks for osseointegration before removing temporary abutment.

Advanced Techniques: Two Stage Mandibular Ridge Split

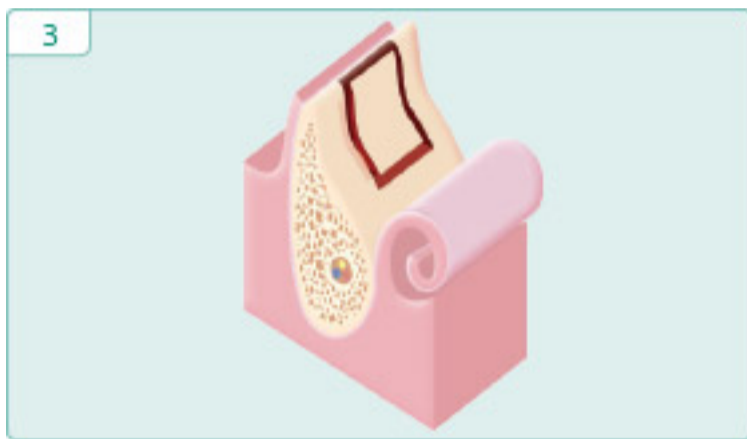
Two Stage Mandibular Ridge Split Technique



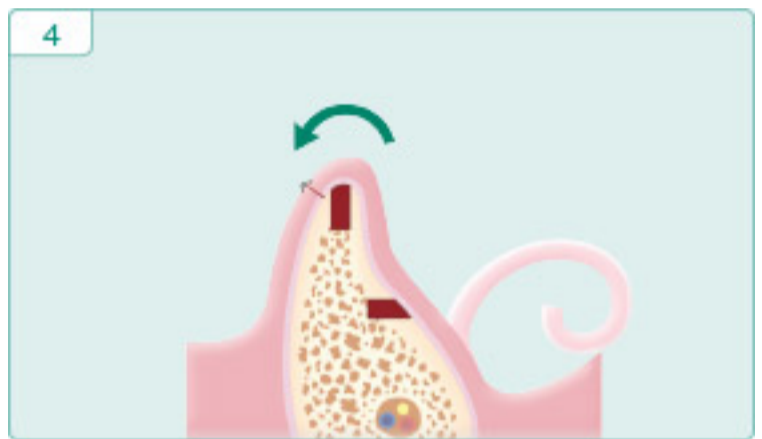
Coronal view of mandible.



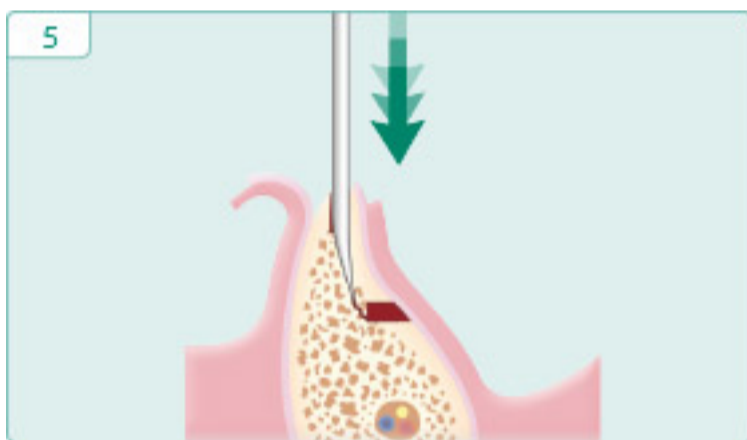
Make a full-thickness flap and a narrow crestal osteotomy. Make a wider horizontal osteotomy 3.0mm above the mandibular canal.



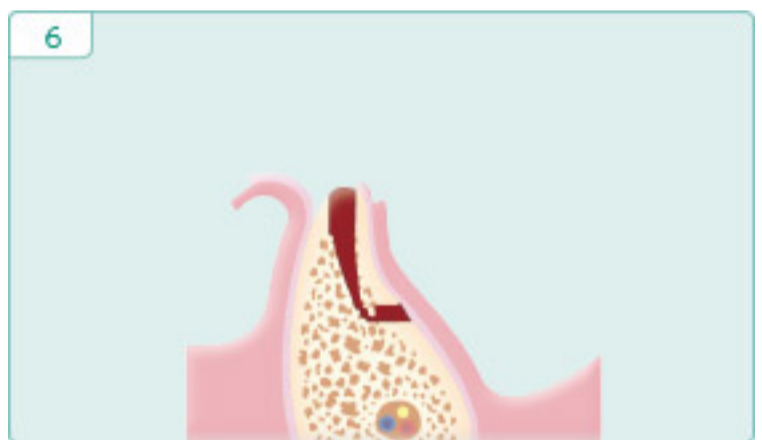
Lateral view of two thin vertical osteotomies and a wider horizontal osteotomy.



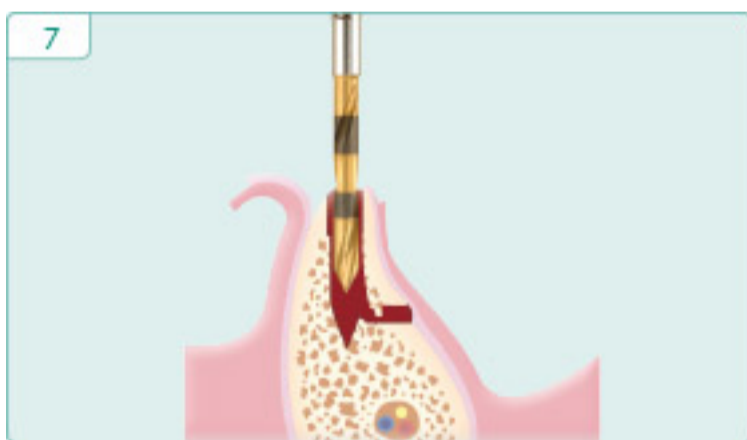
Close for three or four weeks to re-establish blood supply to the cortical bone.



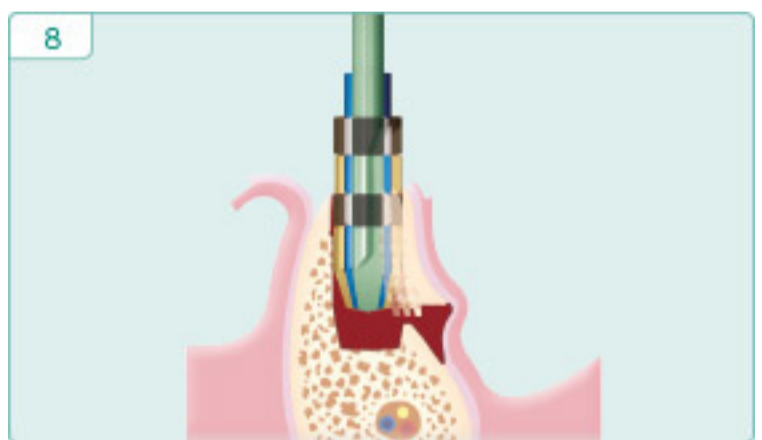
A Curved Cottle chisel is used to separate the buccal plate.



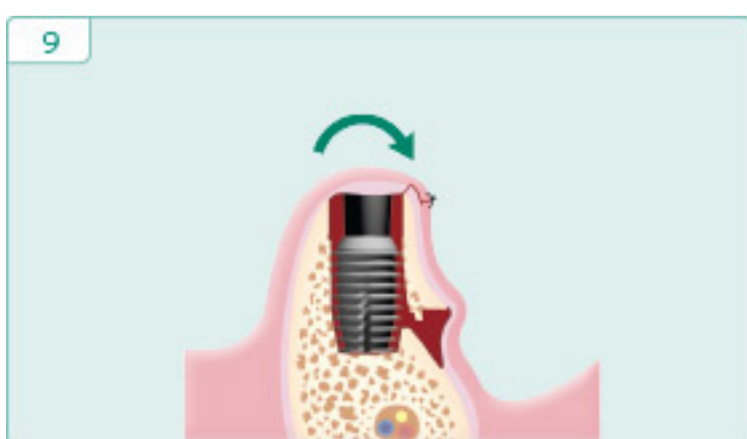
Buccal plate separated, but remains attached to the buccal periosteum using Bicon's Bone Graft Syringe.



Without reflecting the buccal periosteum, drill a 2.0mm pilot hole to a depth below the horizontal osteotomy.

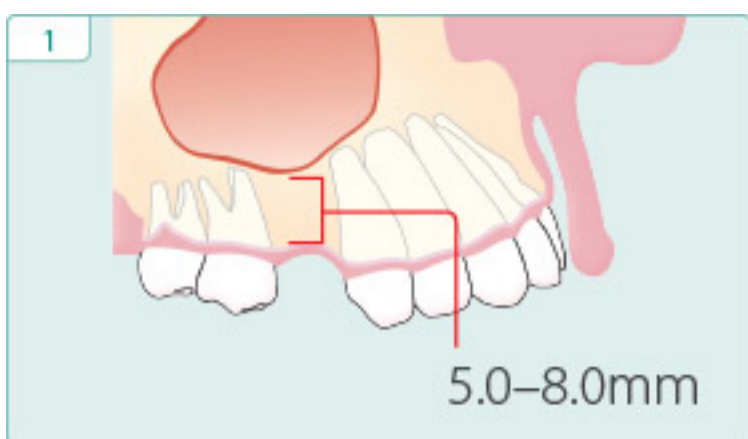


Buccal cortex is outfractured as wider reamers are used.

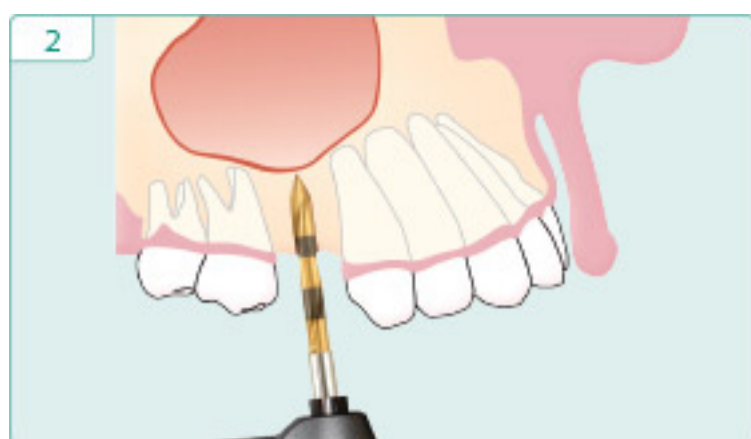


Insert implant into a widened osteotomy apical to the horizontal cut. Allow a minimum of four months for osseointegration.

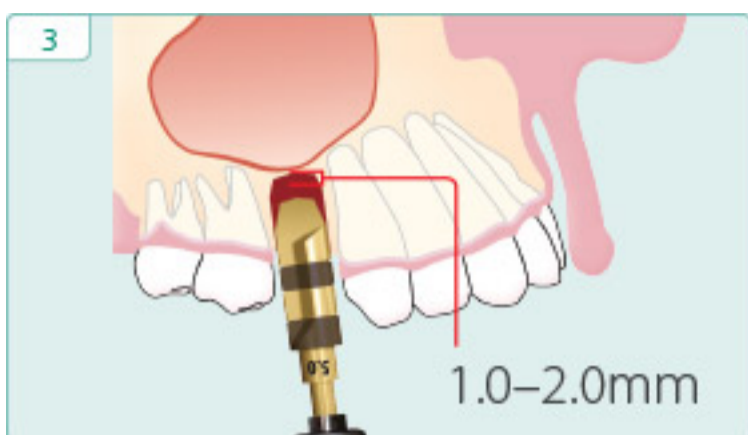
Internal Sinus Lift Technique



Note the minimal residual bone depth of 5.0-8.0mm.



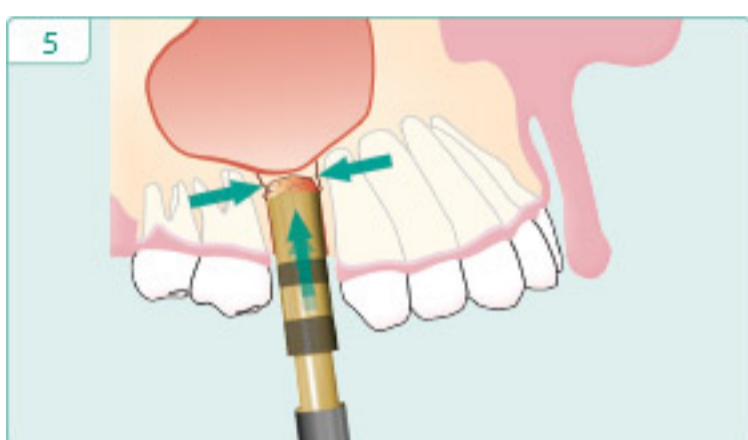
Prepare osteotomy beginning with the 2.0mm Pilot Drill.



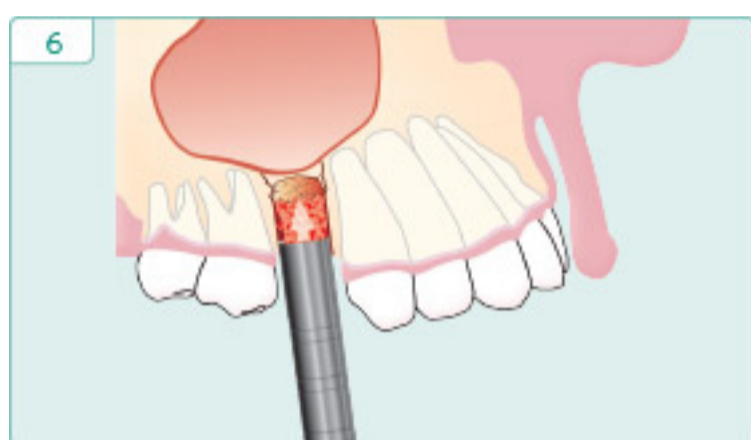
Continue to prepare osteotomy with successively larger reamers to the extent that 1.0-2.0mm of undisturbed bone remains below the sinus floor. A 5.0mm diameter implant has been chosen for this case.



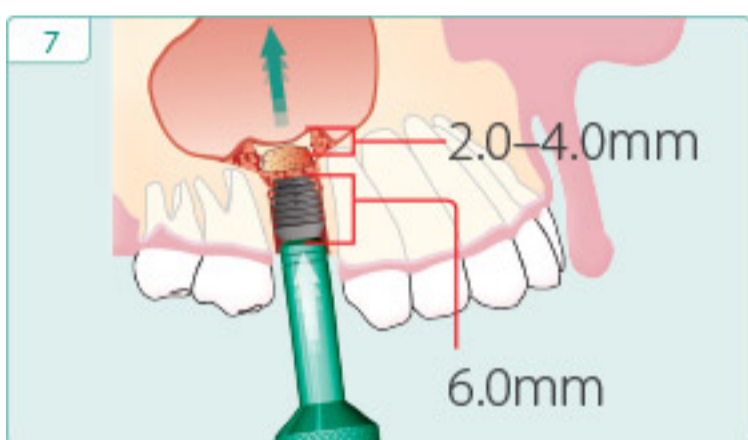
Place a 5.0mm Bicon sinus lift osteotome into the osteotomy and engage the area slightly below the sinus floor.



Gently tap the osteotome and create a hairline fracture around the floor of the osteotomy.



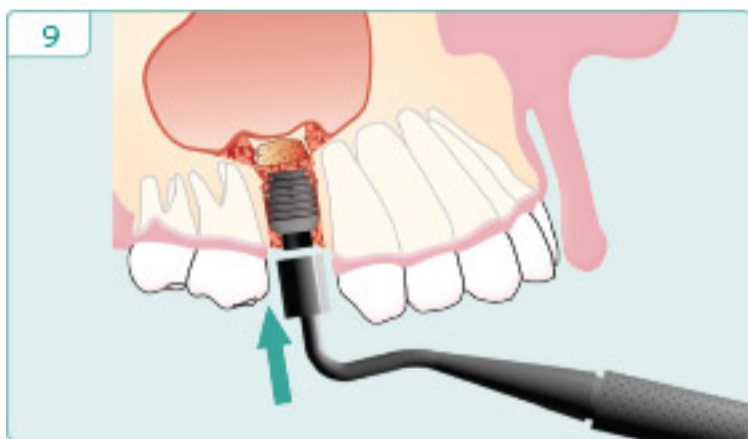
Place a bone graft material such as SynthoGraft™ into the socket.



Introduce the implant into the osteotomy site with the implant inserter and use the implant to raise the sinus floor.



Disengage the implant inserter from the implant. Insert and cut the healing plug.

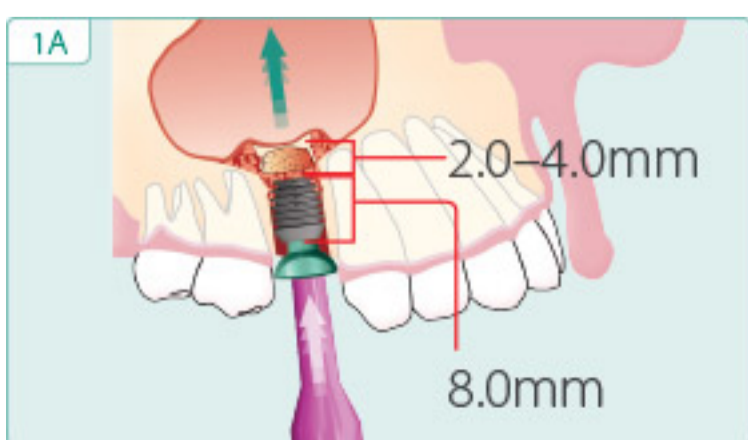


Place bone graft material over the shoulder of the implant.



Suture and wait a minimum of 14-16 weeks prior to uncovering.

Internal Sinus Lift with Sinus Lift Temporary Abutment



Alternatively, a Bicon sinus lift temporary abutment may be inserted into the implant to prevent the implant from migrating into the sinus.



Either suture around or over the sinus lift abutment.