

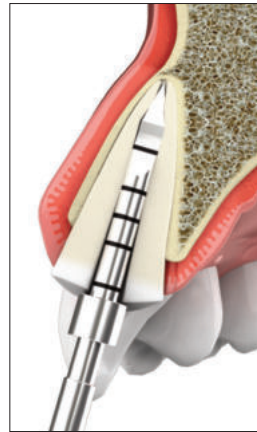
►► How to use Partial Extraction Therapy(PET) Kit

Socket Shield Technique



From a CBCT, measure the length of the root from the level of the gingiva to the apex.

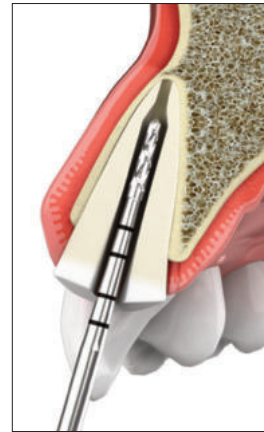
Referencing the CBCT, remove the coronal portion of the tooth flush with the gum line.



Set the length of the No.1 drill using the depth stopper and the 0.9 Hex Hand Driver.

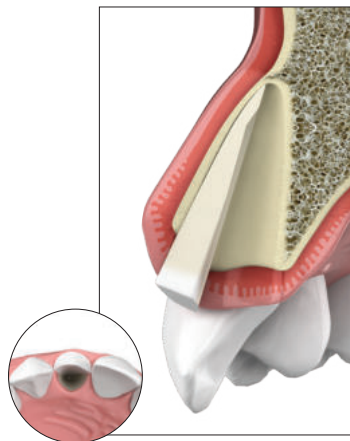
Drill with copious irrigation and intermittent pump action until you reach the level of the depth stopper.

Take an X-ray to confirm that you have reached the apex of the root.



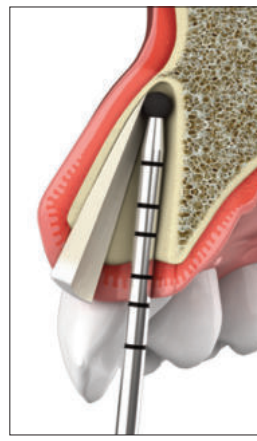
Use the long shanked No. 2 drill to section the root from mesial to distal in a sweeping motion that runs from mesial line angle to distal line angle.

Ensure that you have measured and marked the length of the root, referencing the markings on the drill to make sure you don't drill past the apex.



Gently remove the palatal portion of the root by luxating motion.

Your finger should rest on the buccal eminence for support and to ensure no movement of the buccal shield. If there is movement, the palatal portion is not correctly resected.

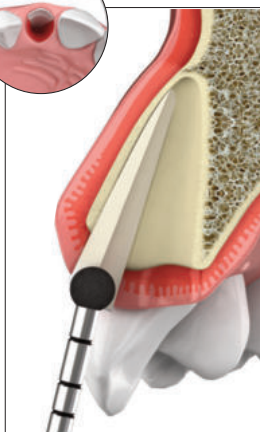


Once the palatal portion has been removed the apical portion needs to be addressed. The root apex and any gutta percha material must be removed using the No.3 round drill.

Place the drill at the most apical portion against the root and move coronally in a gentle painting motion. The drill should not be pushed apically at the apex as this may lead to perforation of the buccal plate.

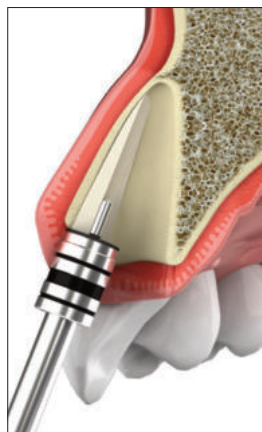


Use the No.4 finishing diamond drill in the final preparation of the shaping and smoothing of the shield.



Use the No.3 round drill to reduce the coronal portion as close to the crest of the bone as possible.

Make sure that the gingiva is retracted with a gingival retractor to prevent damage to the gum during preparation.



Use the No.5 Final Shaper Drill for final preparation and reduction of the coronal portion.

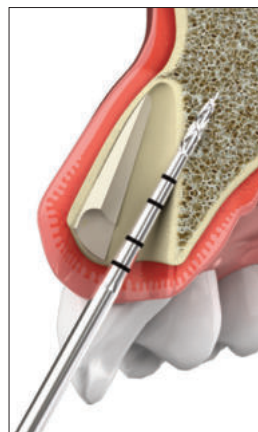
The shield should be prepared to bone level. Use the markings on the drill to get the shield to the correct depth.

Verify shield height at bone level with CBCT.

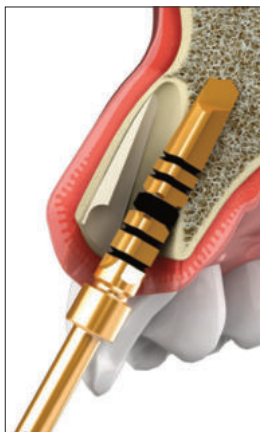


The No.6 guided chamfer drill creates the space that allows the soft tissue to grow between the shield and the implant.

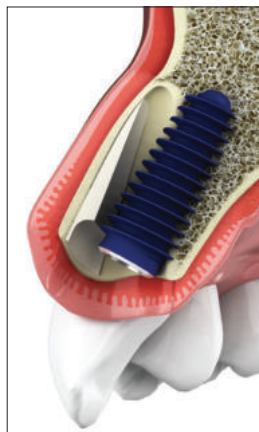
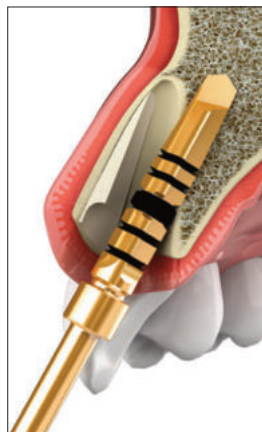
Use the markings on the drill to prepare the chamfer to the correct depth, reshaping and smoothing the coronal portion of the shield.



Implant preparation according to the normal protocols of AnyRidge or AnyOne implants.



Proceed according to AnyRidge and AnyOne drilling protocol to prepare site to appropriate size for implant placement.

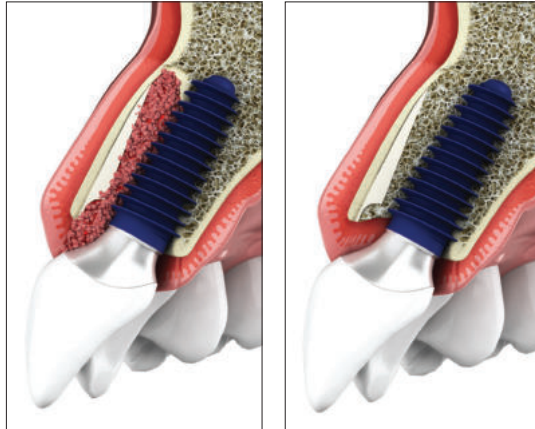


The implant should be placed about 0.5mm above the widest part of the chamfer to allow for maximum space between the implant and the shield.



The jump gap should be filled with bone graft material. This can be done either before or after the implant has been placed.

This will minimize the risk of internal shield exposure. The implant can touch the shield if there is limited space, however more space is preferable.



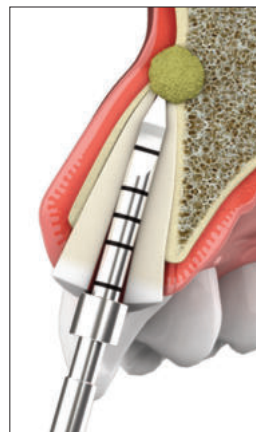
Either a provisional crown or custom temporary abutment with an emphasis on the distance between the shield and subcritical notch is crucial. 2-3 mm of space is necessary to allow good soft tissue coverage of the shield. Failure to accomplish this may lead to an internal shield exposure.

Pontic Shield Technique



From a CBCT, measure the length of the root from the level of the gingiva to the apex.

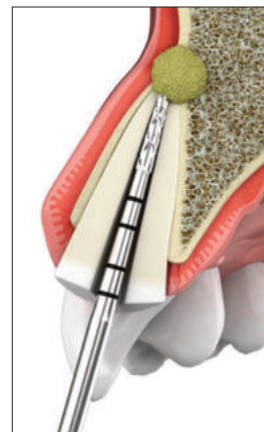
Referencing the CBCT, remove the coronal portion of the tooth flush with the gum line.



Set the length of the No.1 drill using the depth stopper and the 0.9 Hex Hand Driver.

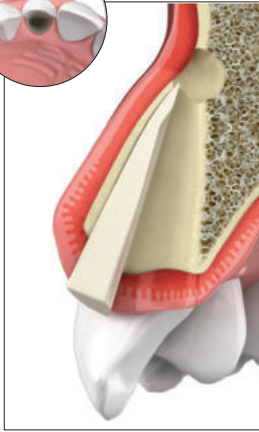
Drill with copious irrigation and intermittent pump action until you reach the level of the depth stopper.

Take an X-ray to confirm that you have reached the apex of the root.



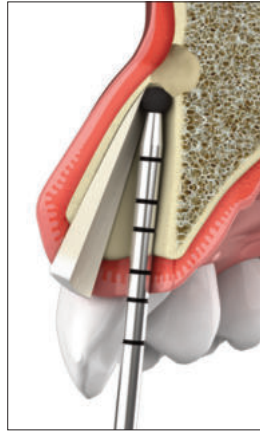
Use the long shanked No. 2 drill to section the root from mesial to distal in a sweeping motion that runs from mesial line angle to distal line angle.

Ensure that you have measured and marked the length of the root, referencing the markings on the drill to make sure you don't drill past the apex.



Gently remove the palatal portion of the root by luxating motion.

Your finger should rest on the buccal eminence for support and to ensure no movement of the buccal shield. If there is movement, the palatal portion is not correctly resected.



Once the palatal portion has been removed the apical portion needs to be addressed. The root apex and any gutta percha material must be removed using the No.3 round drill.

Place the drill at the most apical portion against the root and move coronally in a gentle painting motion. The drill should not be pushed apically at the apex as this may lead to perforation of the buccal plate.

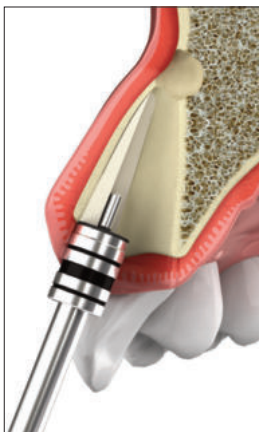


Use the No.4 finishing diamond drill in the final preparation of the shaping and smoothing of the shield.



Use the No.3 round drill to reduce the coronal portion as close to the crest of the bone as possible.

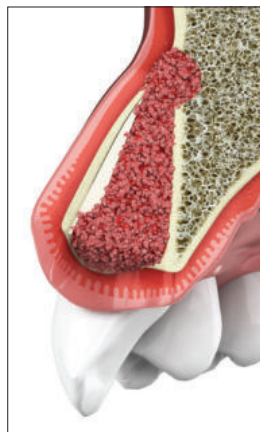
Make sure that the gingiva is retracted with a gingival retractor to prevent damage to the gum during preparation.



Use the No.5 Final Shaper Drill for final preparation and reduction of the coronal portion.

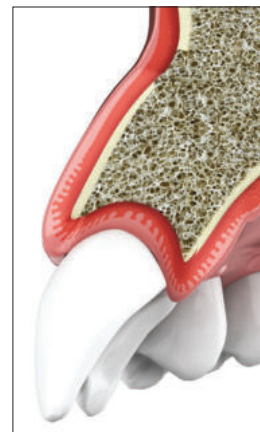
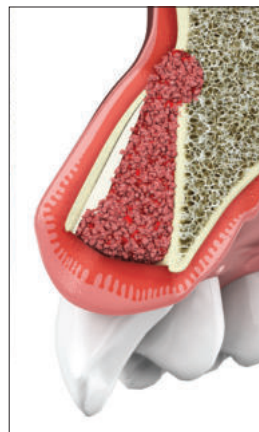
The shield should be prepared to bone level. Use the markings on the drill to get the shield to the correct depth.

Verify shield height at bone level with CBCT.



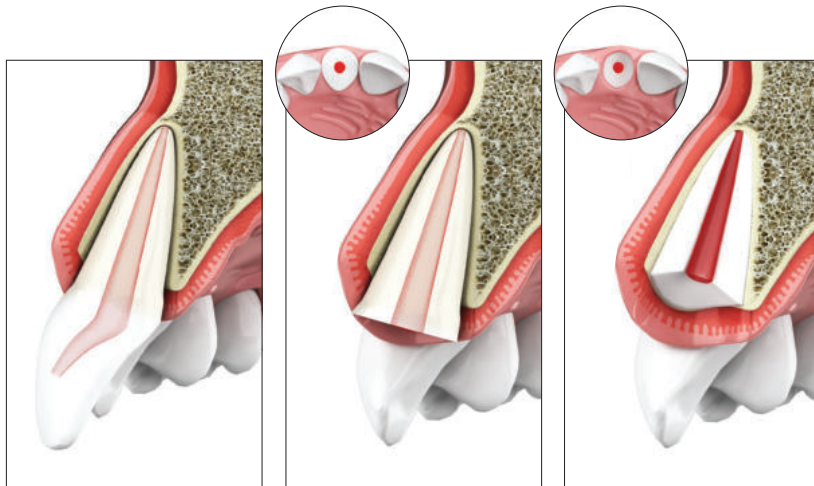
After the socket has been curetted and all the infected material has been removed, the socket is filled with a bone substitute. A soft tissue graft is used to cover the socket. This can either be in the form of a connective tissue graft or a free gingival graft that has been deepithelialized.

The tissue should be tucked under the buccal and palatal flaps at least 4-5mm deep. The other alternative is a rotated palatal flap which will need to be inserted into a buccal pouch at least 4-5mm. It is essential that the tissue is sutured in an immobile fashion. Once healed an ovate pontic is used with light pressure to form the soft tissue.



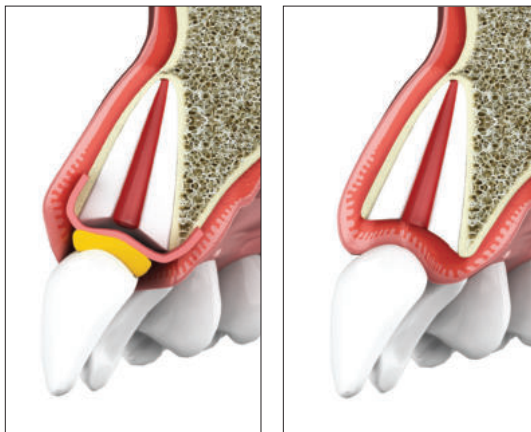
Root Submergence Technique

☛ Vital Root Submergence



Vital teeth can be used in the Root Submergence Technique.

Cut the coronal portion off the tooth to gingival level. Use the large No. 3 round bur to then reduce the root surface interface to bone level. The internal root area (concave shape) should be about 2mm below bone level to allow adequate soft tissue thickness between the root and the future pontic.



The vital root surface interface is left exposed. No graft material is applied to the surface area of the root.

Coverage of the root is essential using either a free gingival graft or a vascularized rotated palatal flap.

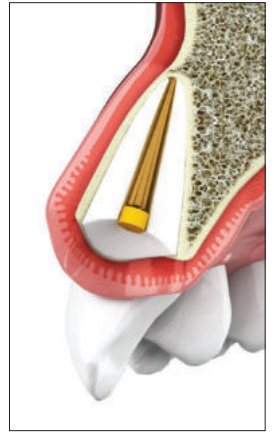
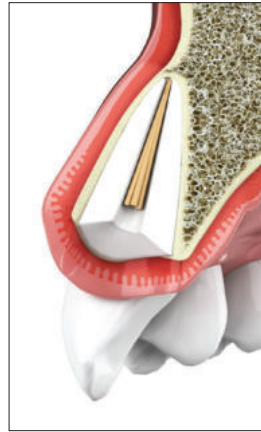
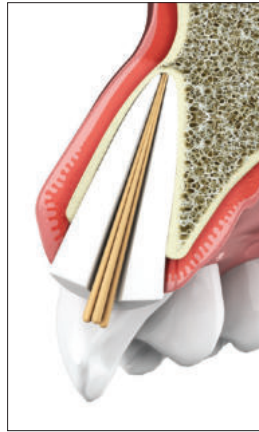
It is essential that the free gingival graft extends at least 4mm into a pouch created both buccally and palatally to ensure adequate blood supply to the graft.

Once healed (about 8-12 weeks) an ovate pontic is used with light pressure to form the soft tissue.

It is imperative that there is only light pressure on the tissue as to not put too much pressure on the gingiva, which could lead to exposure of the root.

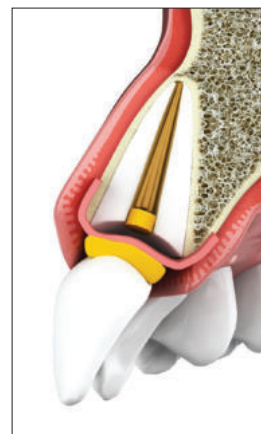
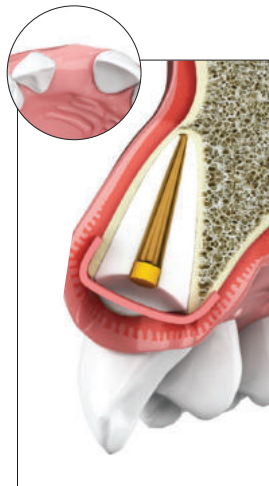
Root Submergence Technique

⦿ Non-vital Root Submergence



Root submergence of a non-vital root requires that the root canal treatment is well sealed and has NO apical radiolucency.

Cut the coronal portion off the tooth to gingival level. Use the large No. 3 round bur to then reduce the root surface interface to bone level. The internal root area (concave shape) should be about 2mm below bone level to allow adequate soft tissue thickness between the root and the future pontic. Remove 2mm of root canal material and seal the canal with glass ionomer cement or MTA.



Coverage of the root is recommended using either a free gingival graft or a vascularized rotated palatal flap. It is essential that the free gingival graft extends at least 4mm into a pouch created both buccally and palatally to ensure adequate blood supply to the graft.

Once the soft tissue has healed in 8-12 weeks an ovate pontic can be placed onto the tissue. It is imperative that there is only light pressure on the tissue as to not put too much pressure on the gingiva which could lead to exposure of the root.