

Osseodensification

Selective Preservation of Tooth (SPoT) Technique

Overview: Indicated in cases of fractured teeth where implant trajectory may not coincide the root canal trajectory.

Step 1

Establish hard and soft tissue measurement and landmarks using clinical and radiographic imaging.

1. Measure distance of gingiva to bone crest.
2. Measure bone crest to apex (amount of shield length in bone).
3. Measure the amount of bone available for implant placement.



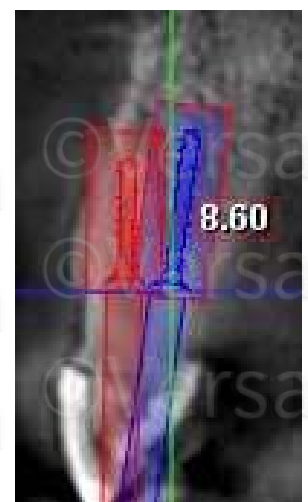
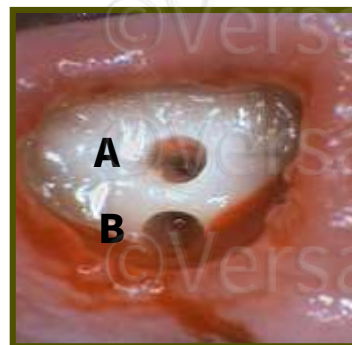
Step 2

1. Use a high-speed 3 mm round diamond bur to reduce the center of the root 2-3 mm sub-gingival leaving approximately a 1 mm shell of the tooth around the periphery (as in A).
2. Use a high-speed Meisinger 909 G flat diamond wheel bur from the center and move outward to flatten the root to palatal bone level (as in B and C).
3. Take a digital perio-apical radiograph to verify measurement from bone crest to apex (as in D).



Step 3

1. Use a high-speed Mesiginger carbide bur (7 mm cutting height) in the root canal trajectory to remove all canal contents to the apex (this will be pilot A).
2. Use the same bur to establish implant site trajectory at similar depth (this will be pilot B).
3. Both pilot holes should be approximately 1-2 mm in diameter.



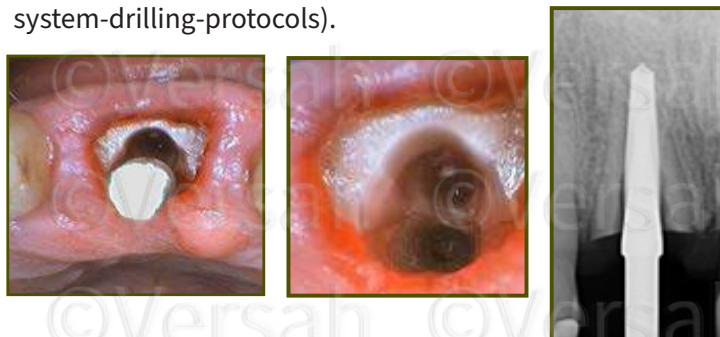
Step 4

Use Densah® Burs (2.0 and/or 2.3) in clockwise mode following the root canal trajectory to remove the apex. Verify with PA.



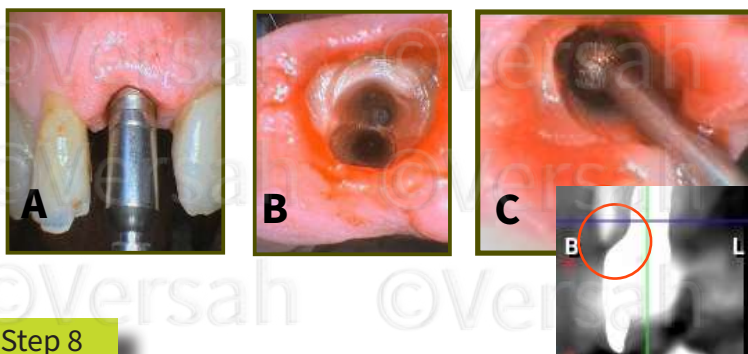
Step 5

1. Use the Densah® Burs (2.0 and 2.3) in clockwise mode, in the **implant site** to a depth that is 1 mm deeper than the planned implant length.
2. Depending upon the implant type and diameter, develop the implant site further with the Densah® Bur according to the Implant System Drilling Protocol. (versah.com/implant-system-drilling-protocols).



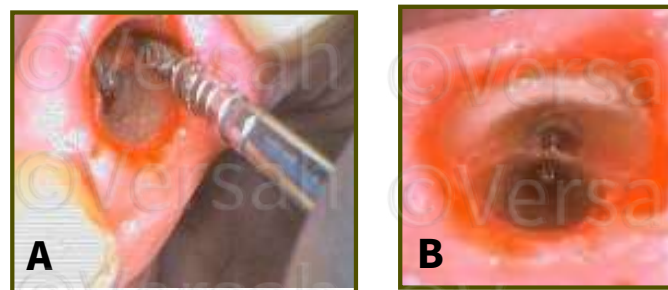
Step 6

1. Use a level shaping bur to reduce the shield height in the buccal (as in A and B).
2. Use a high-speed round diamond or other designated shaping bur to create 3D S-Shape space for the restoration (as in C).



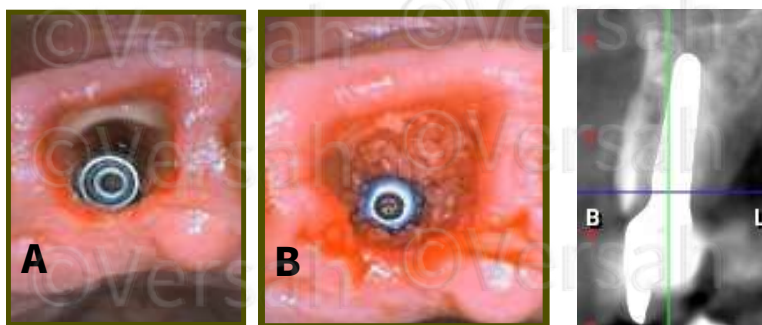
Step 7

1. Use a high-speed long shank tapered bur (diamond or carbide as in A) to section the shield in mesial and distal direction.
2. Complete implant osteotomy with recommended final size Densah® Bur in CCW (as in B).



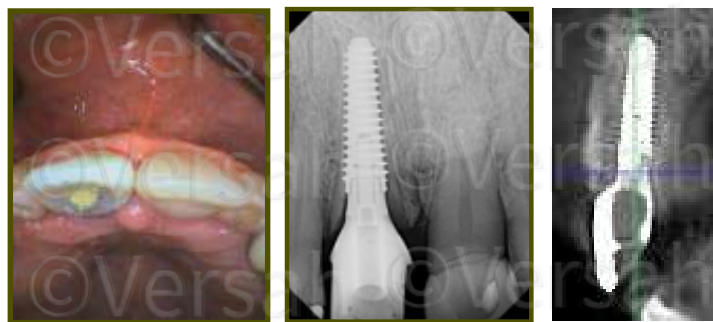
Step 8

1. Place the implant into the Osseodensified site (as in A).
2. Fill the gap between the implant and the S-Shape shield with either allograft or autogenous bone (as in B).



Step 9

Fabricate an immediate screwed retained provisional using the original crown or a custom made provisional abutment.



Case courtesy of Charles Schwimer, DMD