

Osseodensification

Guided Expansion Graft*

For cases with initial ridge width of $\leq 3.0\text{mm}$

- USE PILOT DRILL IN (CW) MODE AND DRILL TO IMPLANT DEPTH AND ANGULATION
- USE THE SUBSEQUENT DENSAH® BURS IN SMALLER INCREMENTS TO EXPAND THE OSTEOTOMY AND TO INCREASE BONE PLASTICITY
- FINAL EXPANSION DIAMETER SHOULD NOT EXCEED THE PLUS ONE FORMULA (INITIAL RIDGE WIDTH + 1MM)
- GRAFT THE NEWLY FORMED SOCKET WITH A 70/30 CANCELLOUS/CORTICAL COMBINATION ALLOGRAFT
- ALLOW HEALING FOR 3-6 MONTHS
- RE-ENTER THE SITE TO PREPARE FOR IMPLANT PLACEMENT USING OSSEODENSIFICATION WITH THE DENSAH® BURS

Step 1:

Flap the soft tissue using the technique indicated for the implant position. **Drill to implant depth and angulation** using a narrow Pilot Drill preferably 1.3mm – 1.5mm. (CW-speed 800-1500 rpm with copious irrigation).

Step 1



Step 2:

Depending upon the implant type and diameter, follow the corresponding Densifying Reference Guide starting with the smallest Densah® Bur to 1mm deeper than the intended implant length. Run the Densah® Burs in OD mode (counterclockwise, drill speed 800-1500 rpm with copious irrigation). **Use the subsequent Densah® Burs in smaller increments to increase bone plasticity and expand the osteotomy.** For example, use Densah® Bur (2.0) after the pilot then expand with Densah Bur® (2.3) then move to Densah® Bur (2.5) before introducing the Densah Bur (3.0).

Step 2



Step 3:

Increase osteotomy diameter in small increments until reaching the intended expansion. As the bur diameter increases, the bone will slowly expand to the final expansion diameter. **Final expansion diameter should not exceed the plus 1 formula (initial ridge width + 1mm).** For example, if you start with a 3mm ridge, the maximum expected final osteotomy diameter is not to exceed $(3+1) = 4\text{mm}$.

Step 3



Step 4



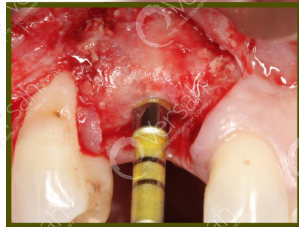
Step 4:

Graft the newly formed socket/osteotomy including surrounding area with your preferred bone allograft materials, **preferably a 70/30 cancellous/cortical ratio**. Use membrane and try to achieve tension free primary closure. Allow healing for 3-6 months.

12 WKS Healing



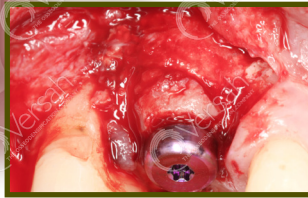
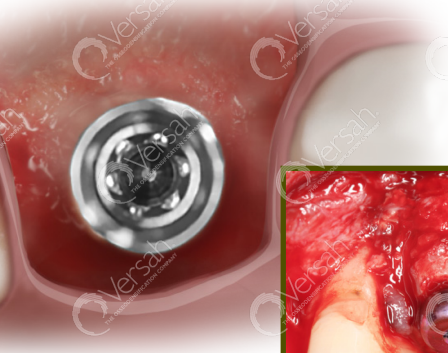
Step 5



Step 5:

Re-enter the site and perform Osseodensification to facilitate further expansion if needed and place the implant. Use the Densah® Burs in smaller increments. **Do not under-prep the osteotomy beyond 0.5mm - 0.7mm in the maxilla or 0.2mm - 0.5mm in the mandible.**

Step 6



Step 6:

If using the drill motor to tap the implant into place, the unit may stop when reaching the placement torque maximum. Finish placing the implant to depth with a torque indicating wrench. The proper diameter implants should be included in the treatment plan and on hand at the surgical appointment.



12 WKS



12 WKS



2 YRS



2 YRS

Case courtesy of Dr. Salah Huwais