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Introduction to DASK

- Simple & easy access to sinus cavity
- Membrane elevation with special instruments

Drills for Crestal Approach

The distance from the alveolar crest to the sinus floor should be measured on x-rays prior to surgery. Site preparation is performed with twist drills in sequence up to 1mm short of the sinus floor. Then DASK Drill #1 or #2 is used and the sinus floor is carefully approached under light apical pressure. When you feel the sinus floor yield, remove the drill. An alternative approach is to do a partial preparation with DASK Drill #1 or #2 and up-fracture with osteotomes can be performed.

(800~1200rpm)
* The internal irrigation not only provides a cooling effect, but also adds hydraulic pressure to slightly lift the sinus membrane during drilling.

When the sinus cavity is accessed, DASK Drill #3 is introduced and a much broader detachment of the sinus membrane from the sinus floor can be facilitated with hydraulic pressure thanks to the internal irrigation hole. DASK Drill #3 can also be used for a lateral window approach.

(800~1200rpm)

Drills for Lateral Approach

Making lateral window by the “thin-out” technique.

(800~1200rpm)
* DASK Drill #4 or #5 is used to prepare a lateral sinus window using light pressure and rotating strokes. The DASK Drill #4 or #5 is designed to minimize the risk of sinus membrane perforation.

Making lateral window with the “wall-off” technique.

(800~1200rpm)
* DASK Drill #6 is a trophine drill used to cut a bony island in the lateral wall. Uncontrolled overdriving may lead to sinus perforation and possible damage to the membrane. External irrigation is necessary when drilling.
Crestal Approach (Sinus Lifting)

Thin-out Technique

After Ø3.8 final drilling, eliminate the residual bone (1mm) using a DASK Drill #1 or #2 (in hard bone) until you feel a slight drop.

Use the dome-shaped sinus curette to gently lift the sinus membrane.

Detach the sinus membrane to create adequate space for bone graft material.

Use [OSTEON™ II Lifting] bone graft material to fill the sinus through the osteotomy.

Fill and distribute OSTEON™ II properly into the created space.

Placement of implant into the osteotomy.

Osteotome Technique

After drilling, use an osteotome.

Use an osteotome to make a greenstick fracture.

Use the dome-shaped sinus curette to gently lift the sinus membrane.
Clinical Case

Crestal Approach

Preoperative panoramic view
Due to caries elongation and tilt, tooth 15 and tooth 16 have to be extracted

Postoperative panoramic view

Final prosthesis in situ (Zirconia ceramic bridge)

DASK Drill #1 with a depth stopper to thin out the cortical bone of the sinus floor

A dome-shaped sinus curette is introduced to detach the Schneiderian membrane from the sinus floor

Bone graft material (OSTEON™ II Lifting) is inserted into the created space

Graft material evenly distributed laterally with the special sinus curette

Implant (SuperLine) placed into the osteotomy
Lateral Approach (Sinus Elevation)

Wall-off Technique

DASK Drill #6 is a trephine drill used to cut a round bony island from the lateral wall. Start to the drill at the desired location and proceed until you see the shadow of sinus membrane. Then separate and lift the bony island up from the neighboring wall with a molt curette or a periosteal elevator. The bony island is repositioned back in its original position after bone augmentation.

The first laser mark is 1.5mm and the second is 3.0mm. Overdrilling can cause sinus perforation and possible damage to the membranes. Keep in mind that bone thickness may vary around the circumference of the trephine cut.

Thin-out Technique

The down the lateral wall with DASK Drill #4 or #5 at a 45 degree angle to reach the Schneiderian membrane.

Move the DASK Drill #4 or #5 mesio-distally with gentle pressure until you get a proper size and shape of the window for bone augmentation.

Detach the sinus membrane using the dome-shaped sinus curette.

Elevate the sinus membrane to create adequate space for graft material.

Fill bone graft material (OSTEON™ II Sinus) into the created space.

If using Wall-off Technique, reposition the bony island after augmentation. Place implant (SuperLine)
Clinical Case

Clinical Case 1: Wall-off Technique

- Preoperative panoramic view
- Postoperative panoramic view
- DASK Drill #6 to prepare a bony window
- The maxillary sinus is opened via a lateral window
- Reposition the bony island after augmentation
- Flaps closed

Clinical Case 2: Thin-out Technique

- Preoperative panoramic view
- Postoperative panoramic view
- DASK Drill #4 for antrostomy approach onto the lateral wall of the maxilla
- A dome-shaped sinus curette is used first around the bony window for sinus membrane detachment
- Implants placed with bone graft filling (OSTEON™ II Sinus DT7G0510050SS)
- Flaps closed
DASK (Dentium Advanced Sinus Kit)

DASK

- Simple & easy access to sinus cavity
- Simplified membrane elevation with special instruments

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<tr>
<th>DASK Drill</th>
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<tr>
<td><strong>Type</strong></td>
<td><strong>DASK Drill #</strong></td>
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<td>DASK Drill #1</td>
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<td>DASK Drill #5</td>
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<td>DASK Drill #6</td>
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*Note:
DASK Drill #1–5: Drill speed 800 to 1,200 rpm, 30–45N.cm with internal irrigation
DASK Drill #6: Drill speed 800 to 1,200 rpm, 30–45N.cm with external irrigation

Stopper | For XRT332035, XRT372035, XED331035D | Scale 1 : 1 / mm

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Sinus Bur Kit

SDK
DASK (Dentium Advanced Sinus Kit)

Sinus Elevation Instrument  | Scale 1 : 0.6 / mm

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Sinus Kit

| XSKL |

Osteotome Kit

Osteotomes compress the bone laterally or move it apically, providing a denser bony interface and/or an apical protective “cushion”

Osteotome  | Final drill type  | Scale 1 : 0.4 / mm

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DASK Maintenance

Sterilization and Instrument Care Procedures
• It is important to use protective clothing and face shield while cleaning contaminated instruments.
  Always wear protective glasses, mask, gloves, etc. for your safety.

01 Rinse instruments immediately after use under running tap water (<40°C) for a minimum of one (1) minute to remove all debris including extraneous body fluids, bone debris and tissue.

02 Soak all instruments immediately after rinsing in an enzymatic cleaning solution* for 10 to 20 minutes (Do not soak overnight.)
  *Follow manufacturer’s instructions and observe recommended cleaning solution concentrations (enzymatic detergent with a pH level between 7-10 and temperature not to exceed 40°C). Do not use incompatible cleaning solutions to clean instruments.

03 For internal irrigation drills, use a 1mL syringe and a 25 gauge needle to clean the drill irrigation hole with a minimum of 0.2mL of the prepared cleaning solution. Repeat this step two (2) more times for a total of three (3) rinses.

04 Scrub with a soft brush a minimum of 1 (one) minute to remove any debris from the drill.

05 Rinse instruments under running tap water <40°C) for a minimum of 1 minute. Use a 1mL syringe and a 25 gauge needle with a minimum of 0.2mL of tap water to forcefully flush inside the drill irrigation hole. Repeat flushing of drill irrigation hole two (2) more times for a total of three (3) flushes.

06 Place instruments into an ultrasonic cleaner with neutral detergent**. Keep instruments inside the ultrasonic bath for 15 minutes using a frequency of 25-50 kHz. Ensure multiple instruments placed within the bath remain separated.
  **Follow manufacturer’s instructions and observe recommended neutral detergent solution concentrations (neutral detergent with a pH level between 7-10 and temperature not to exceed 40°C). Do not use incompatible neutral detergent solutions to clean instruments.

07 Rinse instruments thoroughly with running tap water (<40°C) for a minimum of 1 (one) minute until all traces of neutral detergent solution are removed. Rinse inside drill irrigation hole using a 1mL syringe and a 25 gauge needle with a minimum of 0.2mL of tap water. Repeat rinsing drill irrigation hole two (2) more times for a total of three (3) rinses.

08 Gently wipe instruments with a soft lint-free cloth or place the instruments in a drying cabinet (60°C for less than 10 hours) until fully dry. Blow residual water from drill irrigation hole using a 1mL syringe and a 25 gauge needle. Visually inspect instruments in a well-lit area to ensure they are clean, dry and free of residue.

09 Clean instrument trays with a germicidal cleaner prior to returning instruments into Kit.

10 Always check for damage or corrosion after rinsing and drying.

Maintenance Period for DASK Drills

All surgical drills should be replaced with new one after approximately 20 uses based on bone density.
OSTEON™ II Sinus & Lifting

Synthetic Bone Grafting Material

OSTEON™ II Sinus

- For sinus augmentation via lateral approach
- Reduced time and more convenience with a special syringe
- HA coated with β-TCP: excellent osteoconductivity for new bone formation

OSTEON™ II Lifting

- For sinus augmentation via crestal approach
- Much smaller particle size of OSTEON™ II within a narrow diameter syringe fitted to the crestal approach

Composition of OSTEON™ II

HA Scaffold (30%) + β-TCP Coating (70%) / 100% synthetic

Products

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