

Quick Guide MIPS procedure

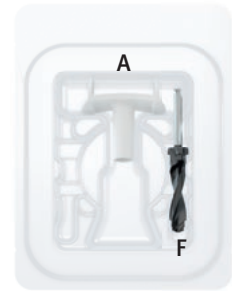
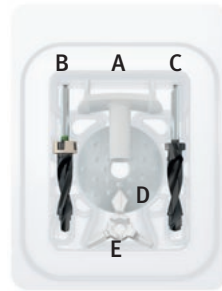
Single-stage

MIPS is a single-stage procedure recommended for:

- Adult patients with normal bone quality and a bone thickness above 3 mm, where no complications during surgery are expected.
- Children with normal bone quality and a bone thickness above 4 mm (typically 12 years or older) provided that age, development status and other known factors have been considered and found suitable for single-stage surgery.
- Patients, as per above, with a skin thickness of 12 mm or less.

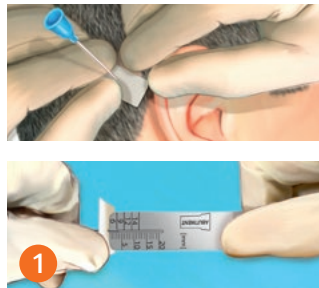
MIPS components

- MIPS Surgery Kit, 4 mm, contains:
 - A: Cannula
 - B: Cannula guide drill with spacer
 - C: Cannula widening drill, 4 mm
 - D: Soft healing cap
 - E: Insertion indicator
- MIPS Back-Up Kit, 3 mm, contains:
 - A: Cannula
 - F: Cannula widening drill, 3 mm



Choose abutment length

- Measure skin thickness in normal state (Fig. 1)
- Be aware of possible compression of the skin
- Select abutment length (Fig. 2)
- MIPS is only recommended for patients with a skin thickness of 12 mm or less

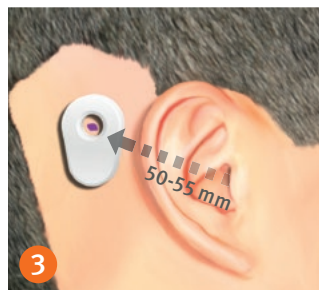


Natural skin thickness	Abutment length
0.5-3 mm	6 mm
3-6 mm	9 mm
6-9 mm	12 mm
9-12 mm	14 mm



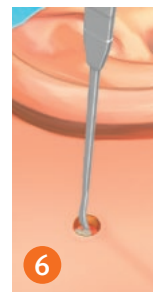
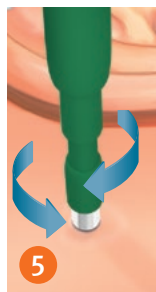
STEP 1: Prepare the site

- Use the sound processor indicator to locate the implant site (Fig. 3):
 - 50-55 mm from the ear canal
 - Top of the indicator aligned with the top of the pinna
 - The indicator must not touch the pinna or patient's glasses
- Mark the implant site on the skin (Fig. 4)



STEP 2: Punch and insert the cannula

- Create a straight cylindrical hole by using a \varnothing 4 mm / \varnothing 5 mm biopsy punch (Fig. 5)
- Expose the bone using the double-ended dissector (Fig. 6)
- Make sure all periosteum is removed at and around the implant site (Fig. 7)
- Insert the cannula (Fig. 8)
- Avoid tension in the skin
- Hold cannula steady in place throughout the procedure



Conversion to linear incision

MIPS can at any time be converted to a linear incision technique. The MIPS components can still be used, but the cannula drills must always be used together with the cannula to prevent drilling deeper than intended. In case of an intra-operative complication, always consider converting to a linear incision for increased accessibility and visibility. See instructions in Surgical Manual.

Instructions for drilling with the cannula

The cannula is primarily a stop collar and acts as soft tissue protection. It is not a fixed position marker.

In each drill step, ensure the following:



- No soft tissue between the cannula and the bone
- Top surface of the cannula parallel to the skin
- Cannula firmly pressed against the bone throughout the procedure



- Fill the cannula with saline prior to drilling
- Continuously apply generous cooling
- Flush the cannula immediately after drilling



- Insert the drill to bone level before starting the drill
- Use the drill tip to find any previously drilled hole
- Use only one down and up drill motion to avoid overheating the bone
- After the single drill motion, immediately flush the cannula to exchange the heated fluid and bone chips with fresh cooling fluid

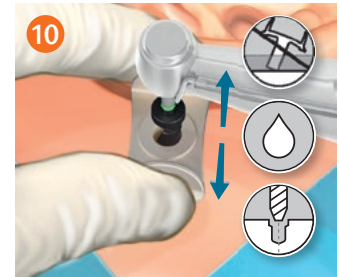
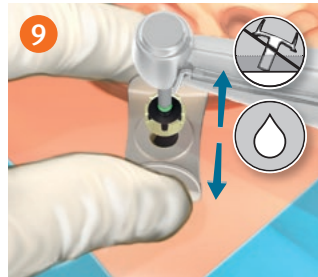


Caution

- The cannula drills must always be used together with the cannula
- The cannula provides the stop that prevents drilling deeper than intended

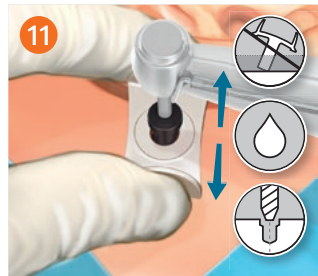
STEP 3: Drilling with the cannula guide drill

- Use a drill speed of 1500-2000 rpm
- Start with the spacer in place (Fig. 9)
- Follow the instructions for drilling with the cannula
- Carefully check the bottom of the hole for bone
- If the bone thickness is sufficient, remove the spacer and drill for a 4 mm implant (Fig. 10)
- Follow the instructions for drilling with the cannula



STEP 4: Drilling with the cannula widening drill

- Widen the hole for the implant with the relevant widening drill (3 or 4 mm) (Fig. 11)
- Follow the instructions for drilling with the cannula
- Flush the cannula to remove any bone fragments (Fig. 12)
- Leave the cannula in place until you are ready to insert the implant



STEP 5: Implant installation

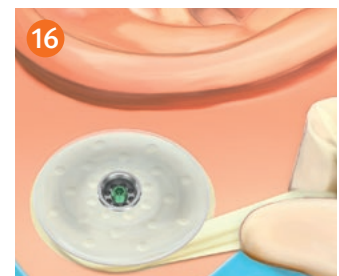
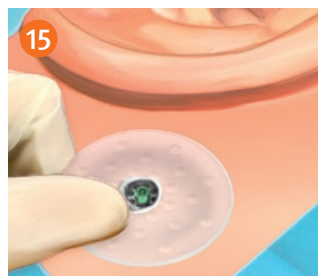
- Pick up the implant with the abutment inserter (Fig. 13)
- Use low speed with automatic torque control
 - 40-50 Ncm in compact bone
 - 10-20 Ncm in compromised or soft bone
- Remove the cannula
- Insert the implant to the preset torque
- When the implant engages the bone, count the number of turns: 4.5 turns for a 4 mm implant and 3.5 turns for a 3 mm implant. This ensures full installment of the implant (Fig. 14)

If the implant engages 3.5 turns or less for the 4 mm implant and 2.5 turns or less for the 3 mm implant, consider backing it out and re-inserting



STEP 6: Healing cap and dressing

- Place the healing cap over the abutment before or after applying the dressing (Fig. 15)
- Apply a suitable dressing (Fig. 16)



The Quick Guide does not replace the Surgical Manual for the Ponto System or the Addendum including MIPS. It is important to read the Surgical Manual and Addendum for a description of patient indications, contraindications and recommended procedures, including warnings and cautions.