**Hallux Valgus Surgical Technique**

**Step 1: First Metatarsal Osteotomy (M1)**

**A. Exostectomy**
Using an oscillating saw or a percutaneous reamer, perform metatarsal head resection so as to create a smooth surface.

**B. Chevron Osteotomy ('V-shaped' osteotomy)**
1. The first cut is performed distally, dorsally and transversely under visual control, just behind the articular surface, and perpendicularly to the axis of the second metatarsal. The osteotomy depth should be about 5mm.
2. The second cut is performed toward the plantar diaphysis.

**C. Translation of bone fragment**
Displace the distal fragment laterally to correct alignment. Temporary pin fixation can help maintaining the correct alignment.

**D. Positioning the guide pin**
Using the appropriate guide, insert the pin corresponding to the chosen screw diameter (Ø0.8mm for Ø2.25mm screws / Ø1.0mm for Ø2.6 and 3.0mm screws – the colour code of the pin holders helps to clearly identify the suitable pin size).

**E. Determining screw lengths**
Choose the 3-in-1 instrument (measuring device, countersink and screwdriver*) corresponding to the screw diameter** and insert it manually onto the guide pin until it touches the bone. Read the screw length on the measuring gauge at the tip of the pin.

*Each tool is available separately and used with the quick-coupling handle, no power tool is necessary.

**F. Manual preparation of the first cortical surface**
Prepare the first cortical surface using the countersink tip of the 3-in-1 instrument, so that the screw head can be safely inserted and flush with the cortex.

**G. Inserting the screw**
The self-drilling property of the screw allows its direct insertion without a pre-drill using the screwdriver tip of the 3-in-1 instrument*. Finalize the screw insertion manually and check if the screw head is totally inserted. Remove the pins and excise the medial eminence of the dorsal fragment.

*In case of a hard cortical bone it is recommended to drill before the screw insertion.

**Intermediate Result**
**H. Varus osteotomy**
The Akin osteotomy of P1 is performed using a percutaneous reamer following the habits of the surgeons.

**I. Determining screw length**
Stabilize the varus osteotomy with the pin corresponding to the chosen screw diameter. Insert it until lightly touching the second cortical surface. Choose the suitable 3-in-1 instrument to measure the screw length (cf. E).

**J. Manual preparation of the first cortical surface**
Prepare the first cortical surface using the countersink tip of the 3-in-1 instrument, so that the screw head can be safely inserted and flush with the cortex.

**K. Inserting the screw**
Insert the screw* of the appropriate length, using the screwdriver tip of the 3-in-1 instrument. Finalize the screw insertion manually and check if the screw head is totally inserted. Remove the pin.

*In case of a hard cortical bone or a bicortical fixation it is recommended to drill before the screw insertion.

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**WEIL OSTEOTOMY SURGICAL TECHNIQUE**
Weil osteotomy surgical technique with a snap off screws (WST2.0Lxx)

1. Perform a first horizontal cut using the oscillating saw starting at the junction of the dorsal cartilage (1).
2. The reduction is made manually by flexing the toe.
3. Insert the screw with the power tool. As soon as the compression is finished, the screw snaps off.

**NB:** In case of a hard cortical bone it is recommended to prepare the screw insertion using a Ø1.0 mm pin (33.0210.080).

Caution: In osteoporotic bone, it may be necessary to provoke release of the shank prior screw head reaches the cortical bone to avoid excessive screwing. Then, use the screwdriver to realize the compression.