The Document “Lateral Registration – Workflow” is a surgical technique about the use of the Hip 6.0 Software.

**PATIENT DATA**

Choose the right patient data (gender, left or right hip).

**MEASUREMENT OF ASIS TO ASIS DISTANCE WITH THE CALIPER**

Right before the surgery measure the distance between the Spina points in supine patient position and enter the value. Make sure that you measure the ASIS on the treated side at the same spot that you will acquire later. To proceed, the entered value must be between 140mm and 350mm. Measured distances outside of this range might be a contraindication.

Important parameter for anterior pelvic plane and mid-sagittal plane reconstruction!
PATIENT POSITIONER

Place the patient positioner below L5 and mark the point on L5 with a device, e.g. an ECG. The ECG is only an orientation and should help to find L5 easier through the drape. Make also sure that the Spina treated side is accessible.

SETUP

Mount the T-array on the Iliac Crest treated side and the pinless femur array on the femur. To fix the pinless femur array we recommend to bond the plate with a bonding foil (e.g. Barrier Incise Drape from Mölnlycke Health Care) on the leg and do the drape above. Because of a sharp tip on the array, it can be easily adapted to the plate over the drape.

Ensure visibility of all needed reference arrays and instruments.

Place the camera on the cranial part from the opposite side of the operator.

For obese patients the camera needs to be higher!
Lateral Registration - Workflow

**POINT ON MIDSAGITTAL PLANE (L5)**

Do the registration on the skin before the incision. Acquire the point on L5's spinous process on the mid-sagittal plane of the patient. Try to palpate ECG, only an orientation, if placed under drape.

**SPINA TREATED SIDE**

Acquire the ASIS point on side to be treated. Try to find the exact same position as used with the hip caliper! Try to approach the point with your hand from anterior w/o a drape. Thus the soft tissue situation on top of the bony anatomy is similar to when it was measured pre-operatively with the hip caliper!

Very important point for anterior pelvic plane and mid-sagittal plane reconstruction!
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PRE – OP LEG ALIGNMENT

Mark a reference point with a screw on the proximal femur, bring the leg in a neutral position and acquire this landmark. This landmark is used after implantation to verify leg-length and offset changes.

ACETABULAR FOSSA

Acquire points in the acetabular fossa region. No need to remove osteophytes unless the fossa is completely covered by osteophytes and before initial reaming.
Acquire 15 points in the deepest region of the acetabulum; stay in the middle but not to inferiorly! It acquired to inferior redo it!

Point is used for anterior pelvic plane and mid-sagittal plane reconstruction!
ACETABULAR CAVITY

Acquire points on the acetabular cavity before the reaming. Perform the acquisition in a specific pattern (ZIG ZAG) and complete whole acetabular cavity.

INFERIOR PEAK OF PSOAS VALLEY

Acquire the point of the inferior peak of the Psoas valley. Before initial reaming and after removing osteophytes.

Look at the midpoint of the TAL (notch), take it as a 6 o’clock position and acquire the psoas point at 9 o’clock position for left hips or 3 o’clock position for right hips.

Reference point used for Pelvic plane reconstruction!
Lateral Registration - Workflow / Hip 6.0

PLANNING AND NAVIGATION

Proceed with the planning and navigation steps.

The Software shows the Lewinnek Safe Zone $40^\circ \pm 10^\circ$ Inclination and $15^\circ \pm 10^\circ$ Anteversion for orientation. Adjust the planned values.

When the inserter is recognized by the camera the Software goes automatically from the planning page to the navigation page. The value of inclination and anteversion are shown in blue and the planned value below in yellow. When you insert the cup in the right position store it.
Bring the leg back in the pre-operative stored position (align the two crosses) and reacquire the marked reference landmark. Verify the values for leg length and offset and if necessary change the implants and redo this step.