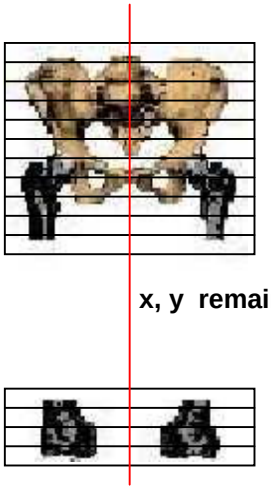
BrainLAB

CT Protocol – HIP

How to scan hip data for BrainLAB navigation:

Patient orientation	• **Strict supine** position, • Legs **parallel** with no internal or external rotation • Orientation "**Feet first**" recommended
Slice Thickness / Scan Range  ***Range 1: Pelvis*** **x, y remain constant** ***Range 2: Femur*** ***Sample Scout View***	• Include the **whole pelvis and both upper femurs** in the scan. • The amount of spine seen in the field of view should be kept to a minimum. • Include as little tissue as possible; only bone structure should be visible. • The width and height (x,y) of both FOVs must be equal, so that the center points have the same x, y coordinates. • **<u>Range 1:</u> Entire Pelvis:** Start scan at the cranial end of the **iliac crest** and scan to **10 cm** below the **lesser trochanter** . The pelvis should be centered in the field of view. *Slice Thickness:* **2-3mm** **Recommendation:** **helical slices at 5mm reconstructed to 2mm.** **Not more than 250 slices in the entire dataset** **Reconstructions are allowed!** • **<u>Range 2:</u> Femoral Condyles:** ca. 50mm of the **left** and **right** distal femurs *Slice Thickness*: **maximum 5mm**
Image / Pixel Size	• Pixel size **must be the same** for both Field of Views!
Scan Properties	• Scan with soft tissue windowing
Scan Technique	• **Sequential scans:** continuous or overlapping slices. **No gap!** • **Helical Scans**: pitch (table:scan ratio) =1:1 recommended. Reconstructed images are allowed. • Slice thickness can be changed during the scan.
Gantry tilt	• No gantry tilt allowed!
Table height	• Must remain the **same** during the scan.
Matrix Size	• **Necessary: 512x512**
Scan direction	• cranial to caudal • caudal to cranial
Storing	• Store **both** scanning sets as **one patient file**.

* Based on PatXfer 4.21 or higher and VV² Hip Navigation Software

* If you need additional information please contact your local BrainLAB Support Engineer