

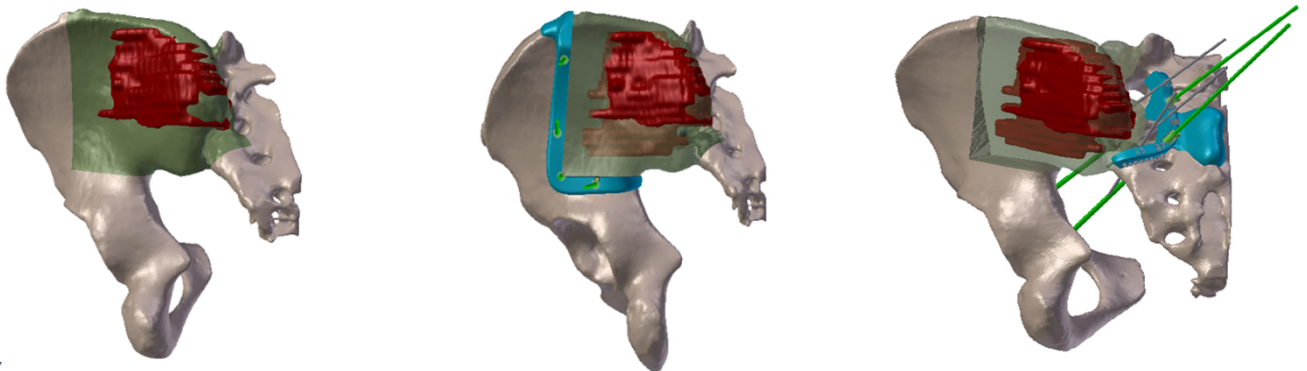
Complex Pelvic Tumor Resection

CHALLENGE Resection of a pelvic tumor with 4 resection planes and 2 surgical guides.

PRE-OPERATIVE PLANNING

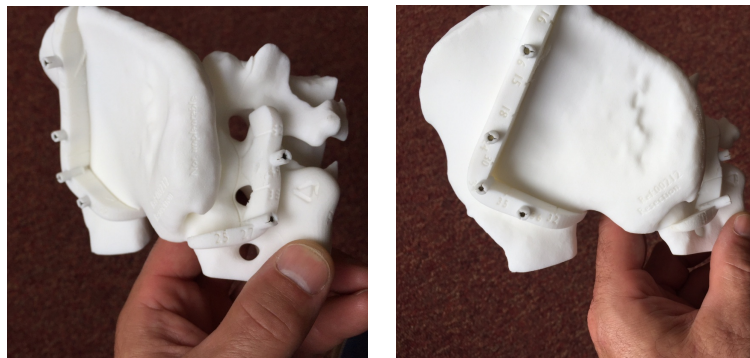
The planning of the bone tumor resection, supervised by Dr. Chotel, was performed by 3D-Side taking the following points into account:

- Safe margins : 5mm
- Preserving the hip joint (avoid acetabular effraction)
- Limiting of the femoral head cartilage
- Preserving S1 and S2 roots
- 2 guides:
 1. Iliac wing from the crest to the ischiatic notch.
 2. Sacrum grabbing the S2 spine, floating over the S1 and S2 holes.



SURGERY

The surgical guides and bone models were approved and manufactured using 3D printing. The anatomical models helped the surgeon to navigate the surgical approach and take landmarks during the surgery. The surgical guides allowed to resect the bone tumor accurately, yielding excellent post-operative results.



The reconstruction was done using bone cement and metallic rods to strengthen the pelvis and bear the load. Locking screws were used to rigidly attach the metallic rods.

