



3D-Side

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BONE TUMOR

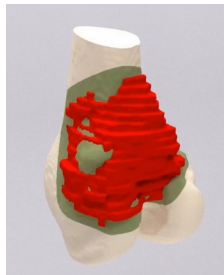
- Surgeon : Dr Chotel
- Hospital : Hospices Civils de Lyon
- **Challenge** : Resection of a **distal, posterior, femoral parosteal osteosarcoma** with **preservation of the anterior cortex**, followed by an **allograft reconstruction**

Complex distal femoral tumor resection + allograft reconstruction

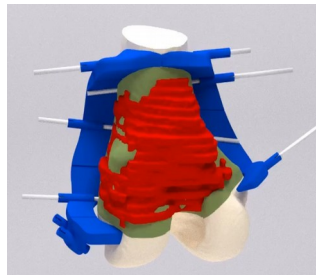
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The **bone tumor resection** was planned based on a **colateral surgical approach**, to **preserve** a significant portion of **the medial condyle**.

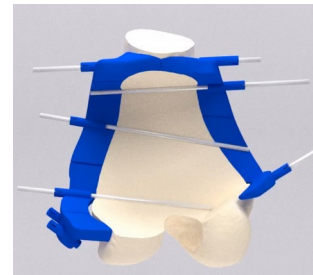
Two surgical resection guides were designed for this resection, one for each side. A common use of the upper K-wire **enhanced** the **stability** of both guides.



Resection Planning



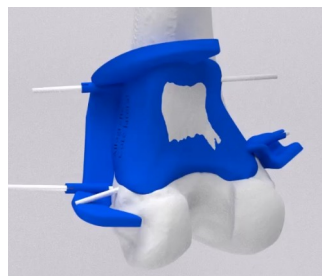
Design of resection guides with fixation by K-wires



Result after resection

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3D-Side planned the **reconstruction by allograft** and created the adequate guide.



Design of surgical guide for the allograft



Result after resection

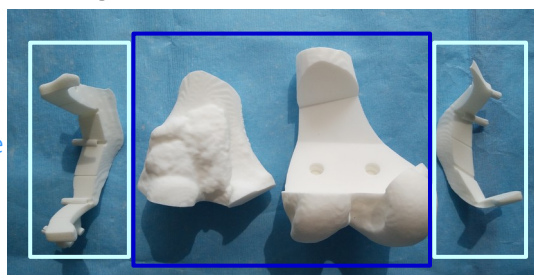


Result of reconstruction

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By means of high-tech 3D-Printing the **anatomical models** of the patient and the allograft and the **resection guides** were produced.

Resection guide



Resection guide

Anatomical models