

Growth Plate (Physeal) Sparing Anterior Cruciate Ligament Reconstruction for Children and Adolescents

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Growth Plate (Physeal Sparing) All Epiphyseal ACL Reconstruction

- Hamstring tendon graft performed with an arthroscopic (camera assisted) technique
- X-ray during surgery and specialized guides allow for precise socket placement below and above the growth plates in the femoral (thigh) bone and tibial (shin) bone respectively.
- Since the growth plates are spared during this procedure there is an extremely low risk of any future disturbance of growth

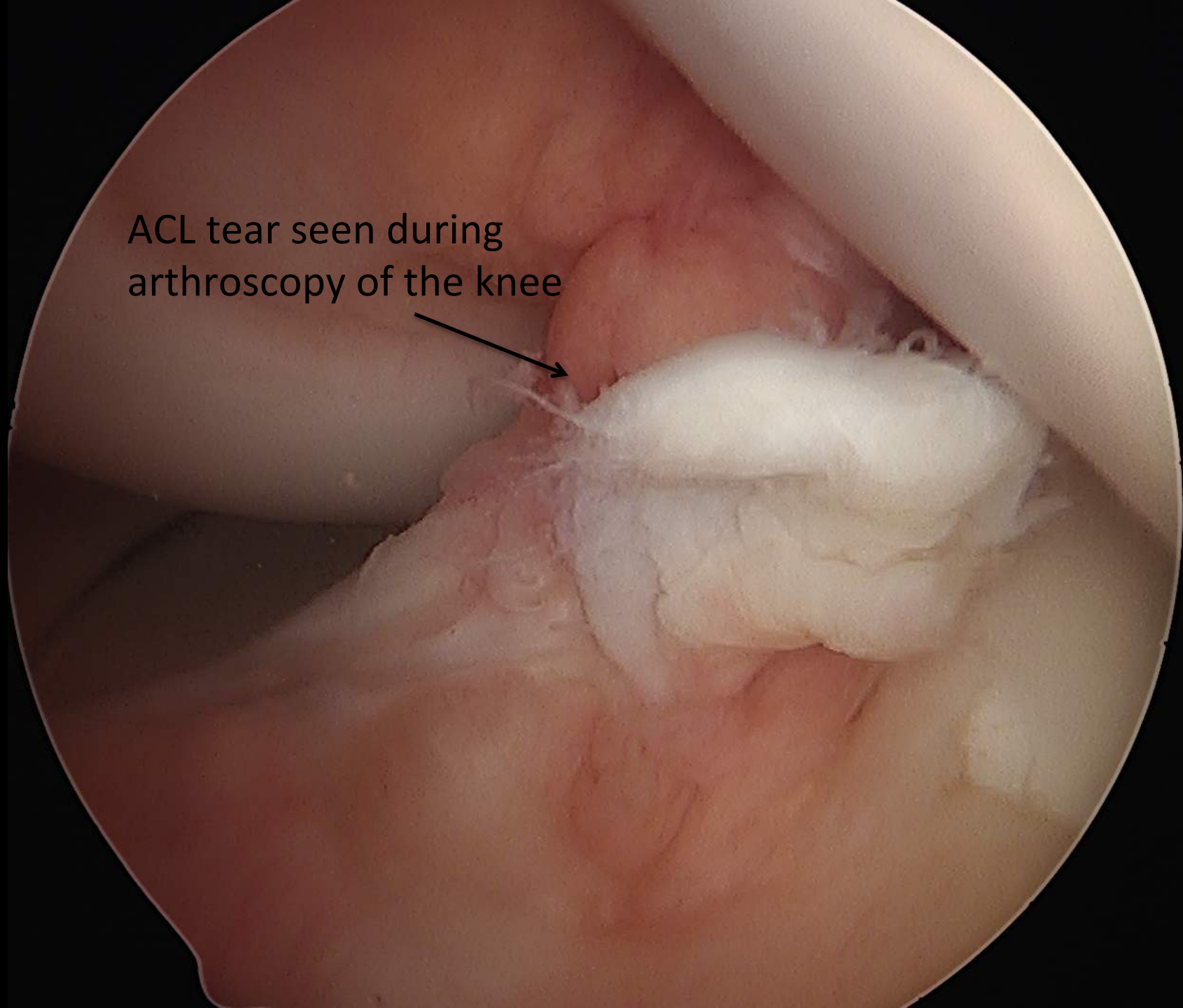
13 y boy injured during soccer

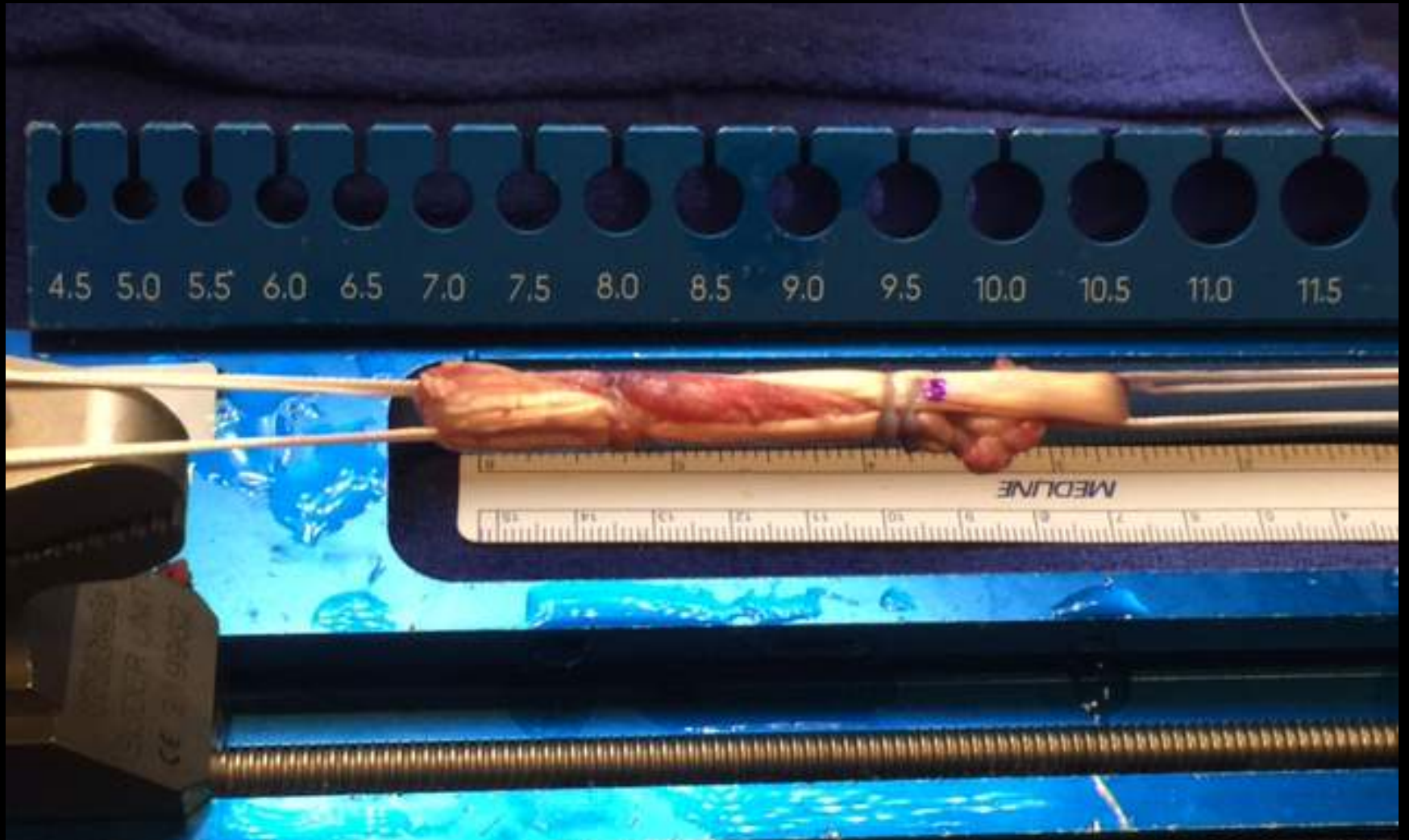




ACL tear on MRI

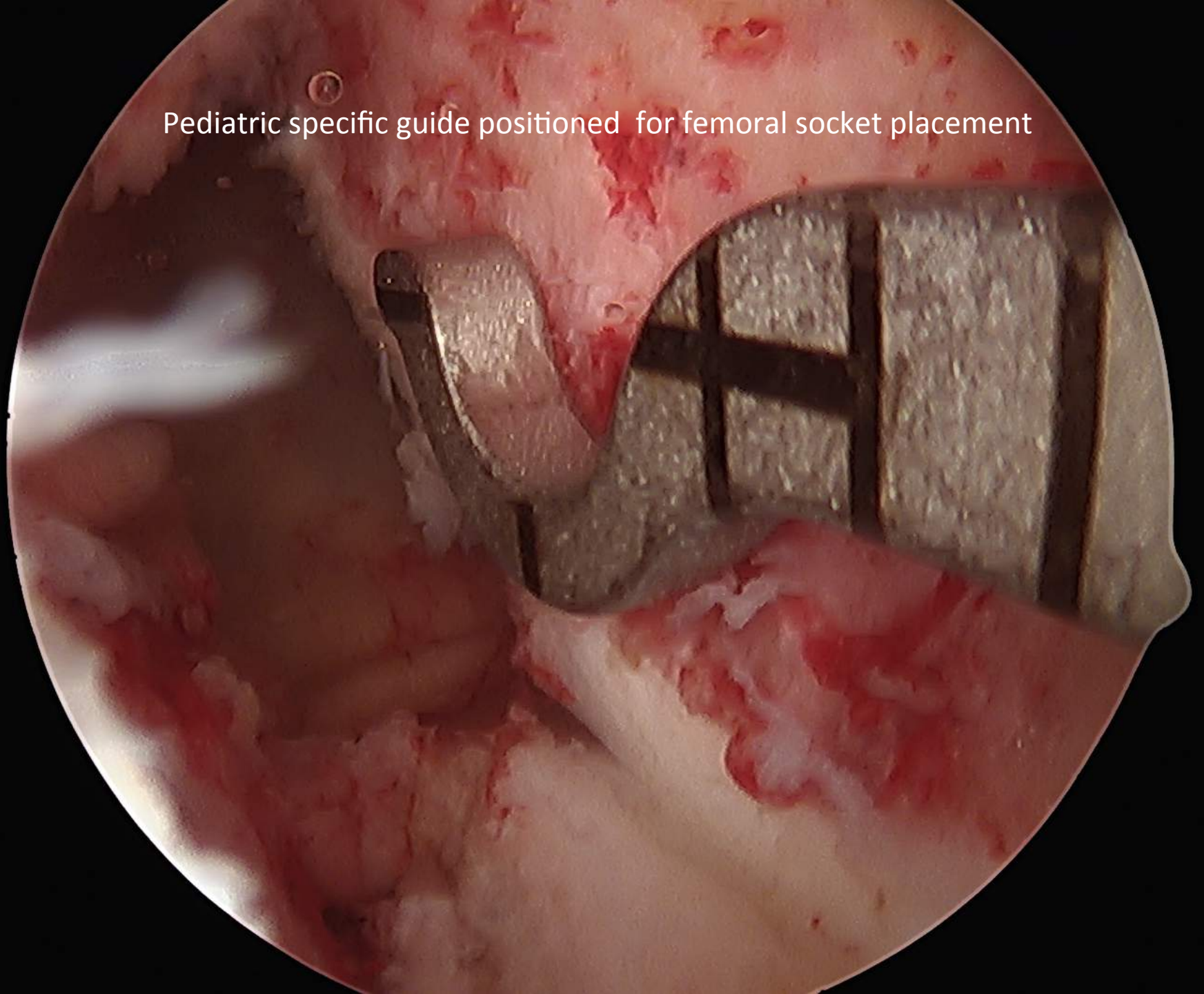
ACL tear seen during
arthroscopy of the knee



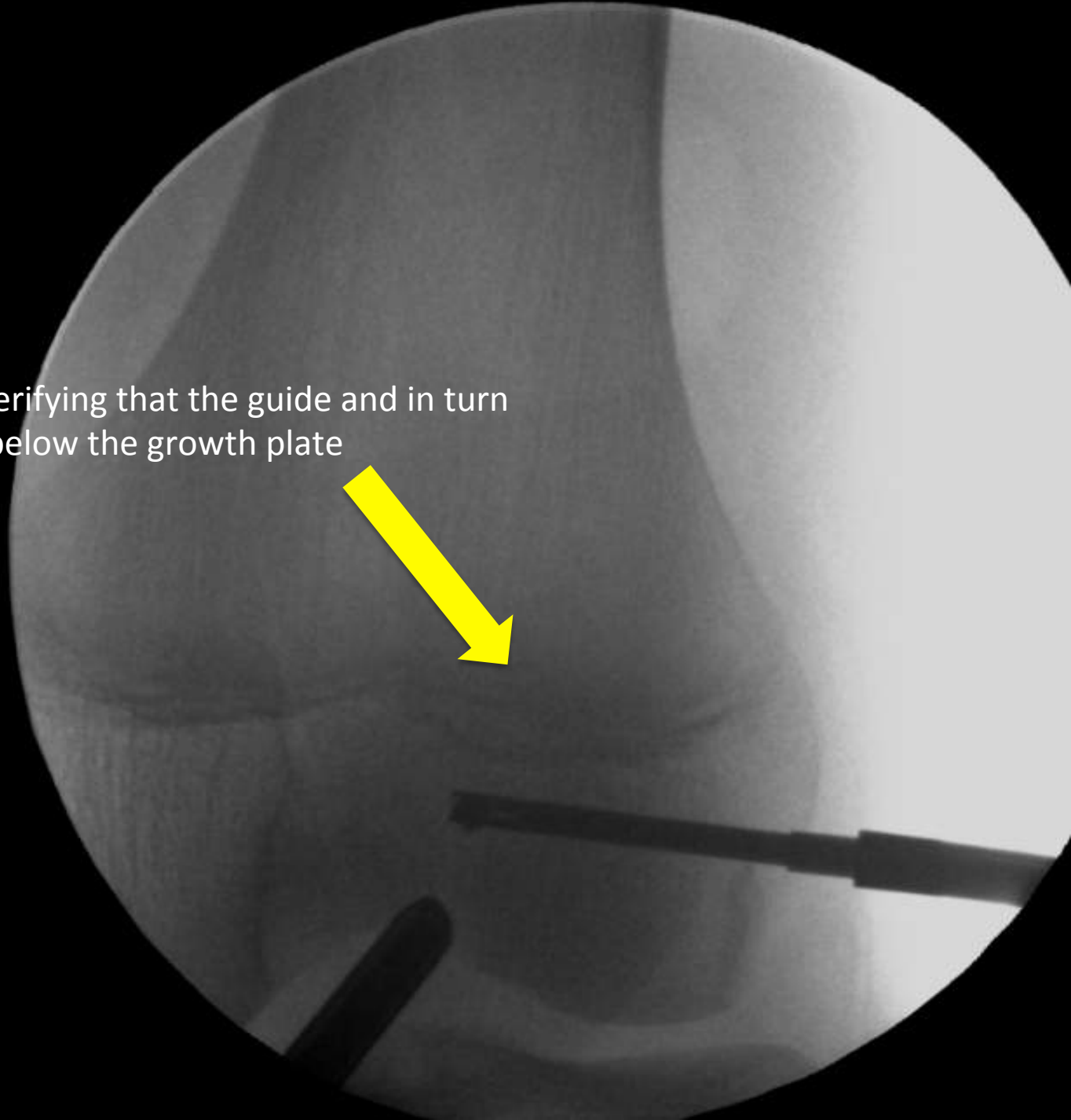


Prepared Hamstring Graft for Implantation

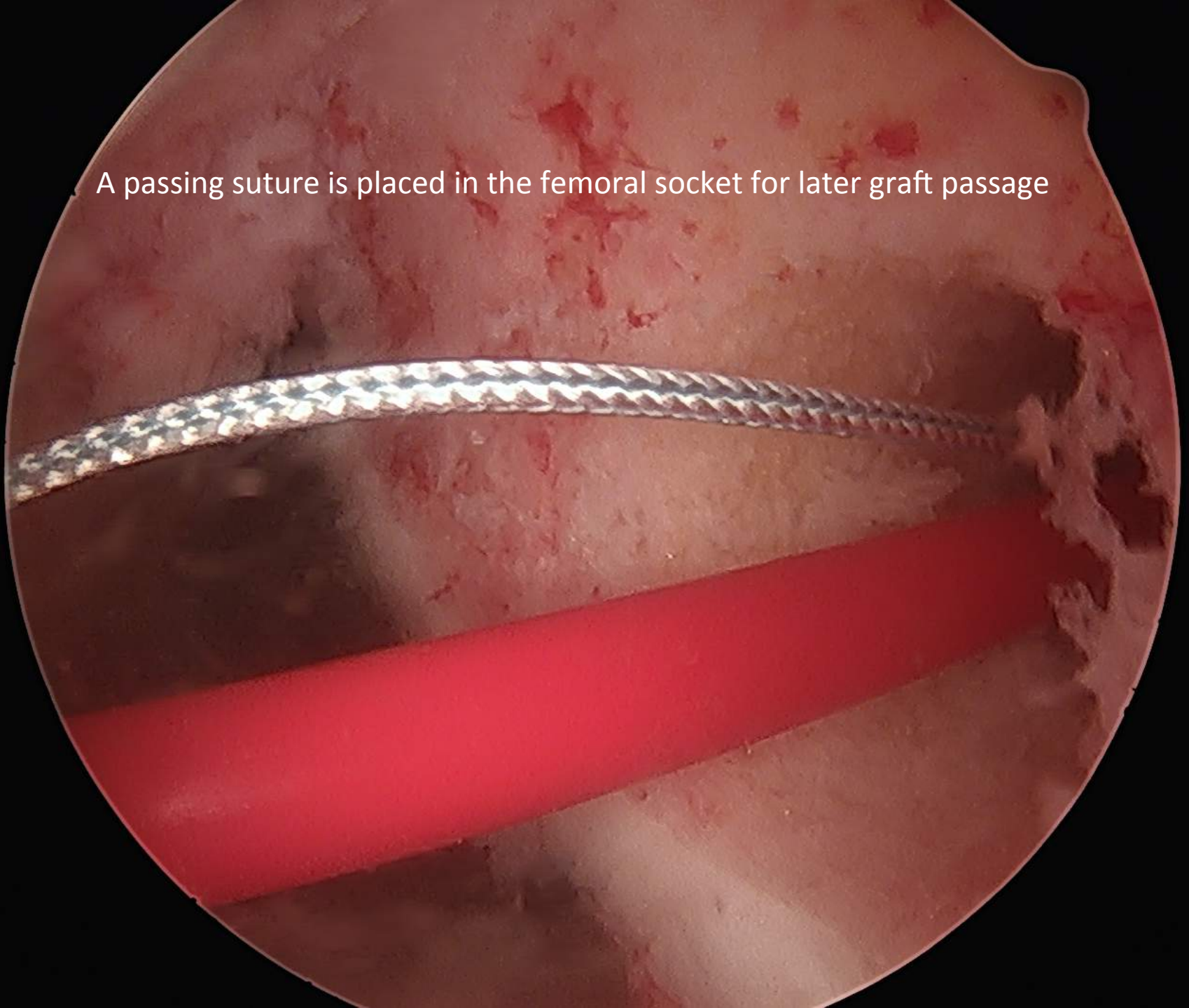
Pediatric specific guide positioned for femoral socket placement

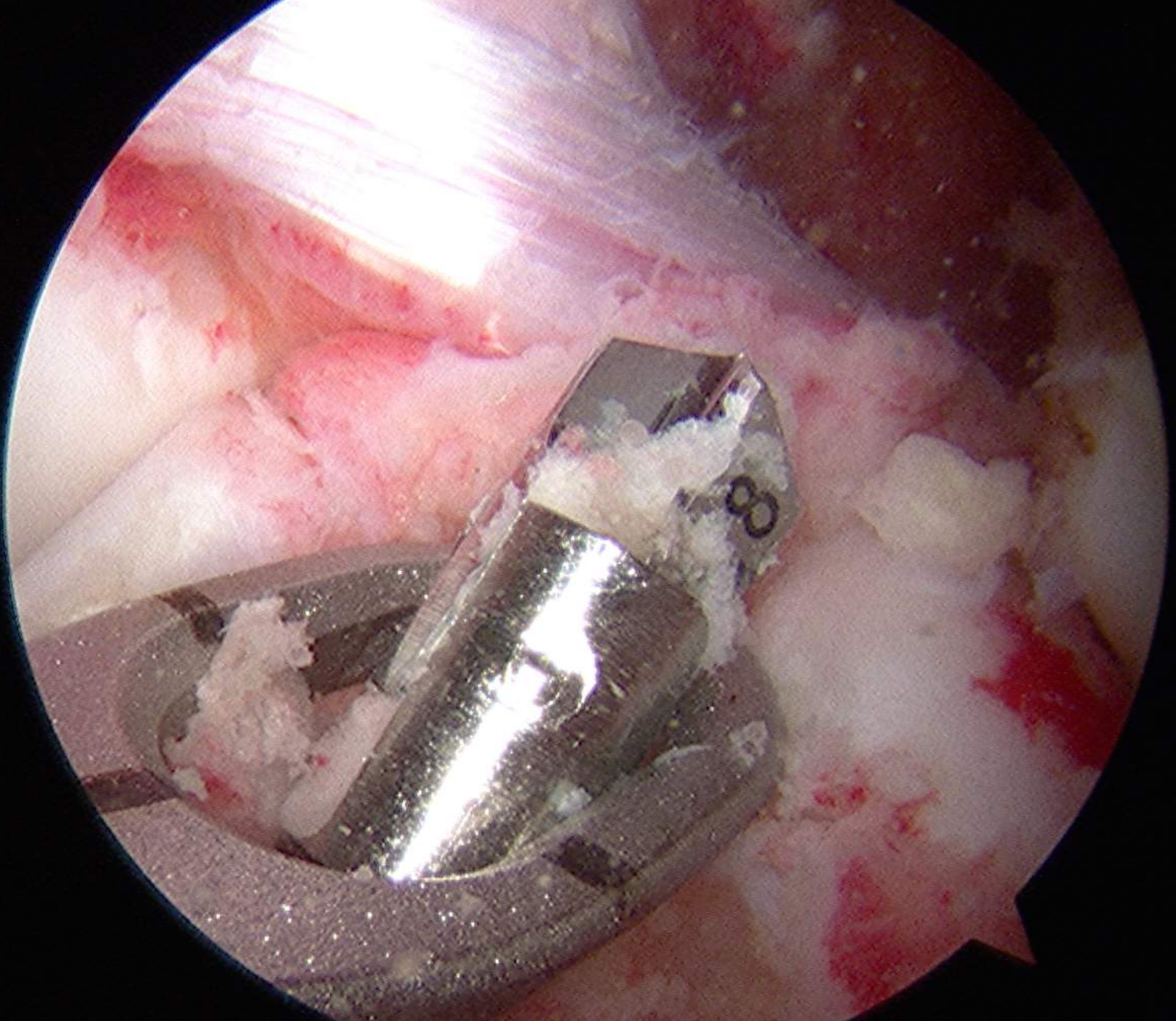


X-ray during surgery verifying that the guide and in turn the femoral socket is below the growth plate

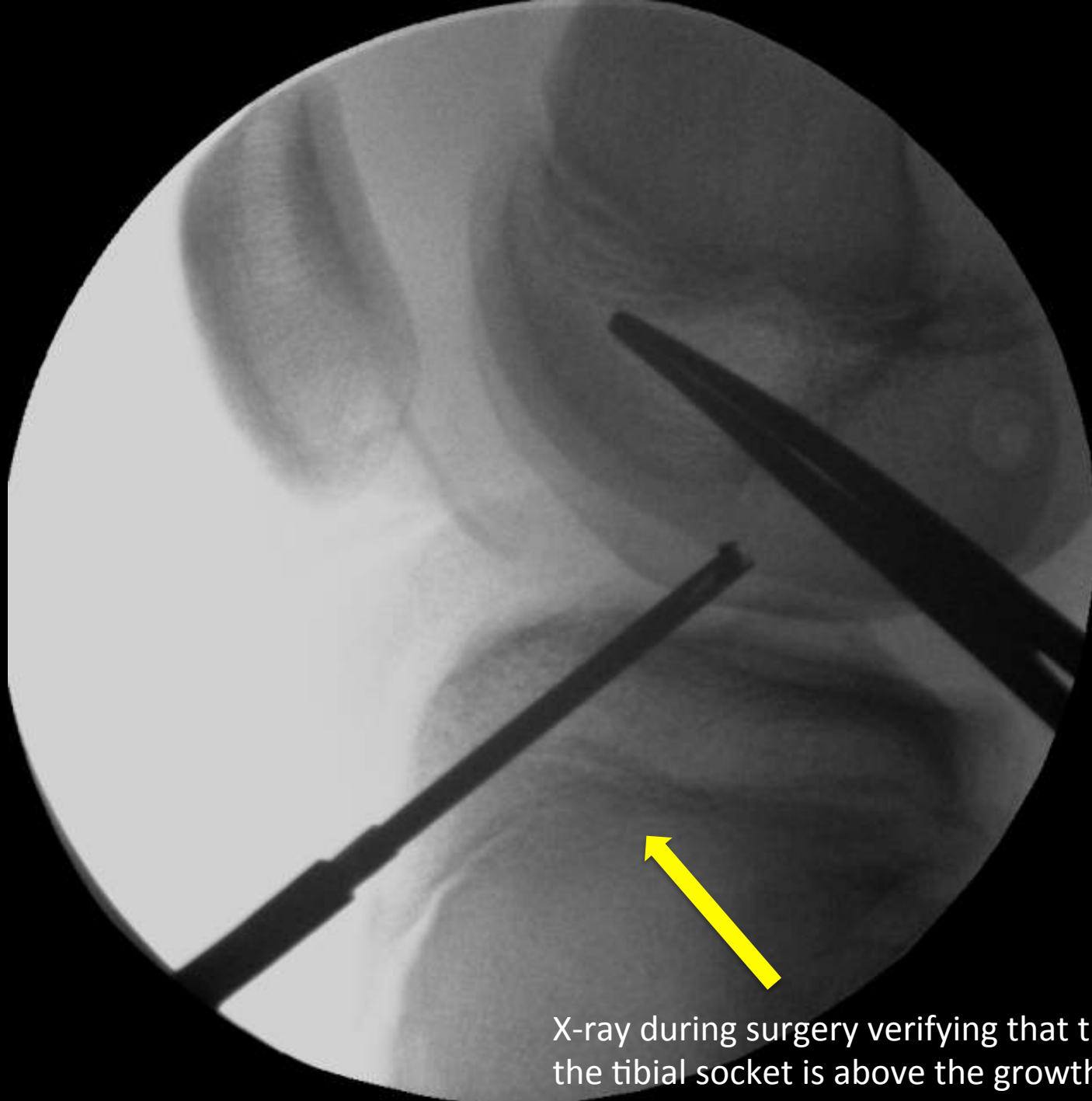


A passing suture is placed in the femoral socket for later graft passage

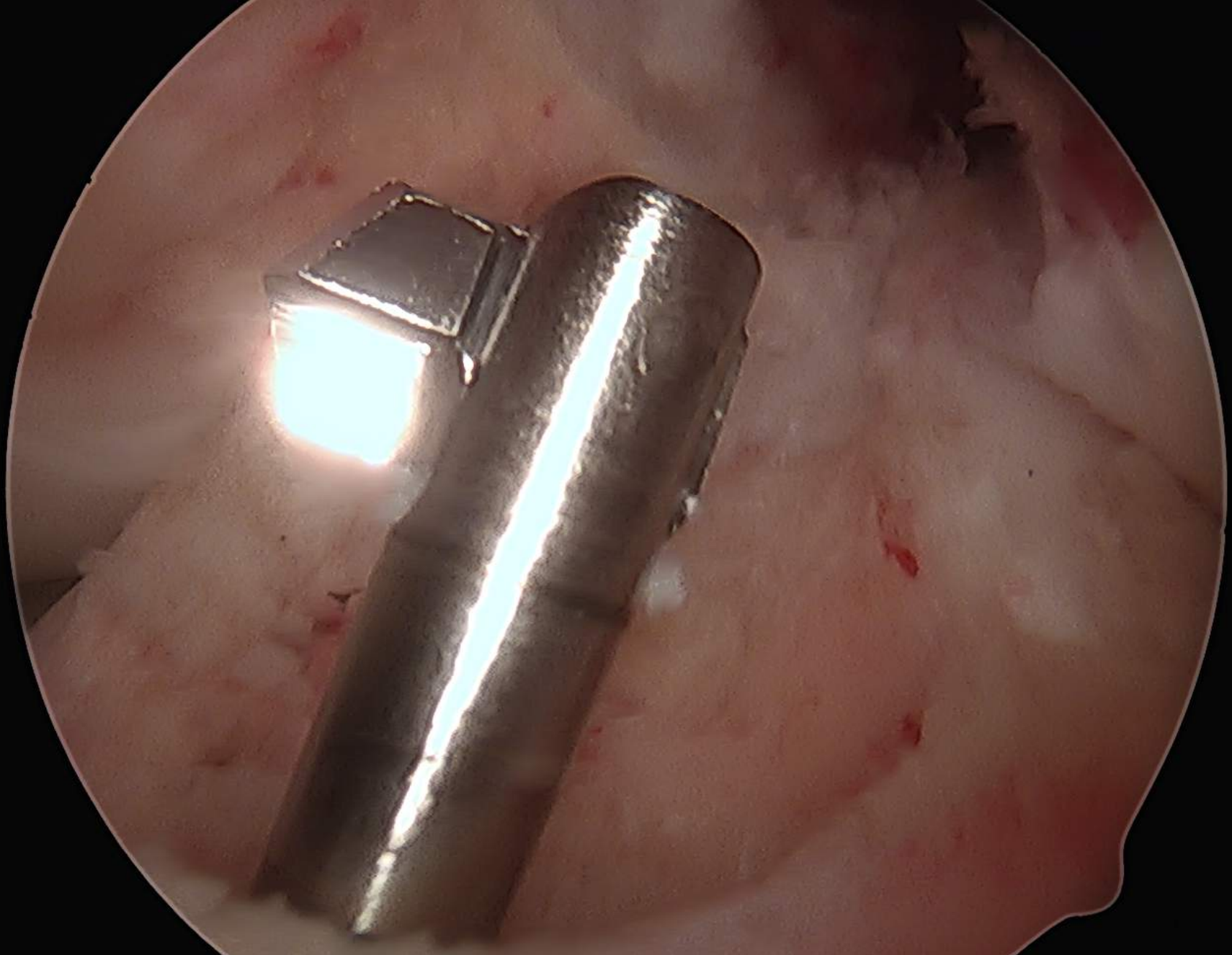




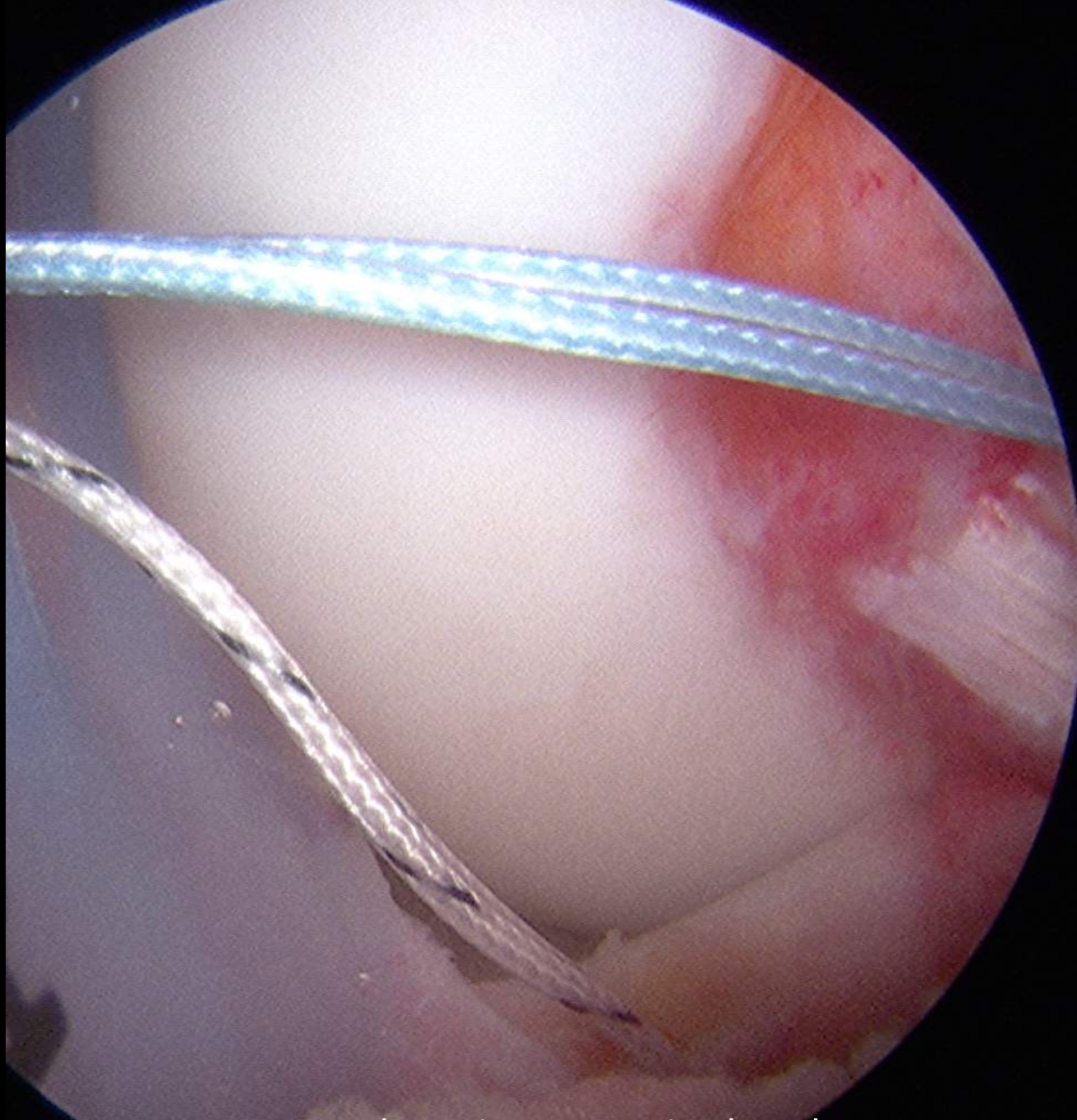
Pediatric specific guide positioned for tibial socket placement



X-ray during surgery verifying that the guide and in turn the tibial socket is above the growth plate

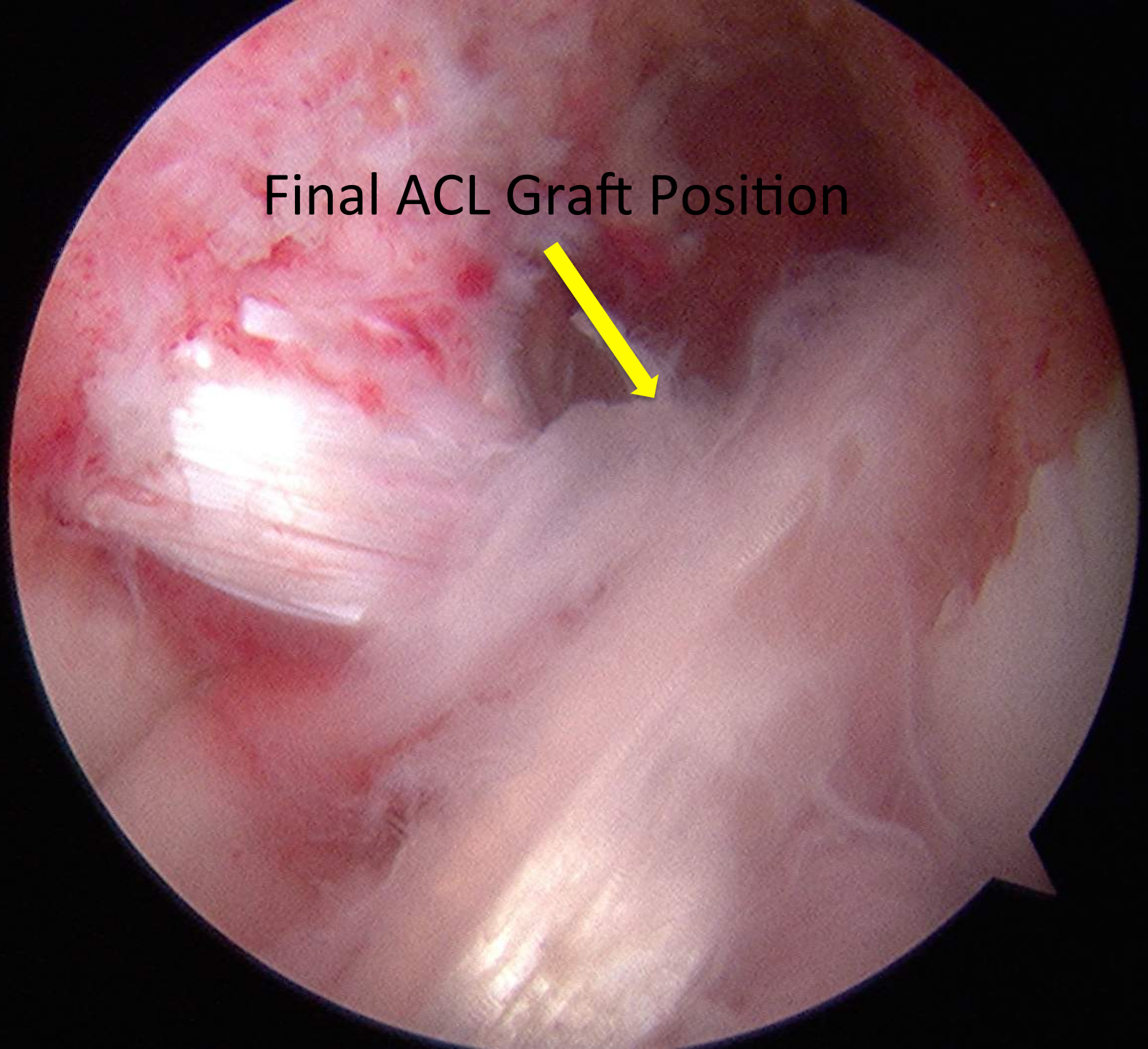


After verification the tibial socket is created



A second passing suture is placed

Final ACL Graft Position





Final X-ray (front view of knee) during surgery verifying implant position



Final X-ray (side view of knee) during surgery verifying implant position