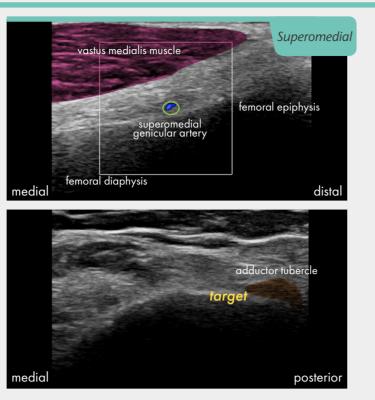
## Ultrasound-Guided Radiofrequency Ablation (RFA) and Pulsed Radiofrequency (PRF) Treatment





Genicular Nerve Knee pain

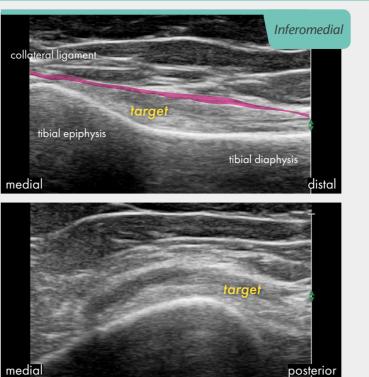


**Identify:** Start with the probe in coronal orientation and identify the junction between the epiphysis and diaphysis of the medial femur with the vastus medialis muscle overlying. The superomedial genicular artery can be seen. Then rotate the probe in a transverse plane. In some cases there is a pronounced adductor tubercle (insertion of the m. adductor magnus).

**Target:** The needle is advanced using an anterior to posterior in-plane approach in the transverse plane. The target point is next to the artery in a coronal orientation of the probe.

**Tips:** Mark an entry point at the assessed probe-totarget distance before starting the in-plane needleapproach in the transverse plane.

**Avoid:** Avoid to hit the artery.

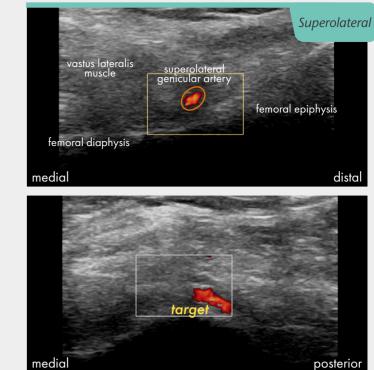


**Identify:** Start with the probe in coronal orientation and identify the junction of the medial tibial epiphysis and diaphysis. Usually the inferomedial genicular artery beneath the medial collateral ligament can be seen.

**Target:** The needle is advanced using an anterior to posterior in-plane approach in the transverse plane. The target point is next to the artery in a coronal orientation of the probe.

**Tips:** Mark an entry point at the assessed probe-totarget distance before starting the in-plane needleapproach in the transverse plane.

Avoid: Avoid to hit the artery.



**Identify:** Start with the probe in coronal orientation and identify the junction between the epiphysis and diaphysis of the lateral femur with the vastus lateralis muscle overlying. The superolateral genicular artery can be seen. Then rotate the probe in a transverse plane.

**Target:** The needle is advanced using an anterior to posterior in-plane approach in the transverse plane. The target point is next to the artery in a coronal orientation of the probe.

**Tips:** Mark an entry point at the assessed probe-totarget distance before starting the in-plane needleapproach in the transverse plane.

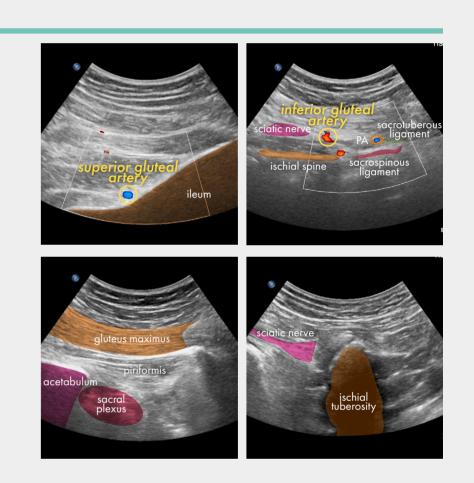
Avoid: Avoid to hit the artery.



**Identify:** Start with the probe slightly oblique on the superior gluteal area and identify the gluteal muscle and the superior gluteal artery. Move the probe in a caudal direction and identify the piriformis muscle. Identify the interior gluteal artery and the pudendal artery by further scanning in a caudal direction. Further scanning caudaly will result in a view on the sciatic nerve lateral to the sitbone.

**Target:** Using an in-plane approach from the medial end of the probe the needle is advanced untill the sacrotuberous ligament is pearced in vicinity of the pudendal artery.

*Tips:* Exo/endorotate the femur to identify the piriformis muscle. Use an oblique



position of the probe (laterocaudal to mediocephalad) to alignate with the sacrospinous ligament.

**Avoid:** Do not hit the pudendal artery. Do not pearce the sacrospinous ligament.

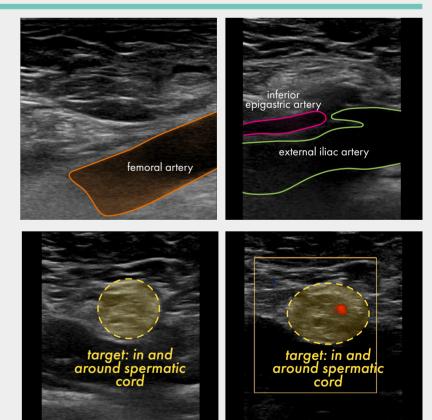


**Identify:** Femoral artery is identified. The probe is placed in the long axis and moved cranially. The femoral artery dives to posterior and the inferior epigastric artery should be located. Thereafter the probe is moved medially and the spermatic cord can be seen as an hyperechoic structure.

**Target:** The needle is placed inside the spermatic cord where a first injection is done. A second injection is performed just outside the spermatic cord in the inguinal canal.

**Tips:** An expansion of the spermatic cord needs to be seen on injection because of its high vascularization. The vas deferens can be observed as a tubular structure.

**Avoid:** Local anesthetics with epinephrine should not be used.





\*This poster is an educational aid. It should not be used as a sole source of information for a new technique. Variations in anatomy are to be expected and no responsibility can be accepted for the technical ability of the practioner and individual patient outcomes.