

Video: Ultrasound-guided tibial nerve block—Nerve Blocks: Part II. Lower Extremity.mp4

Speaker 1 [00:00:00] In this video, we will be discussing the method of performing a tibial nerve block using ultrasound. First, we will be discussing the anatomy of the tibial nerve seen on ultrasound. In these still images, we can see the orientation of our probe in the short axis view of the right ankle on the left, as well as an image of the short axis ultrasound view of the right ankle on the right. Notable anatomy includes the medial malleolus; the posterior tibialis tendon, shown by the white circle; the posterior tibial artery, shown by the red circle; and the tibial nerve, shown by the yellow circle. Note the relationship of the tendon, artery, and nerve from anterior to posterior on ultrasound.

[00:00:53] The provider will start by placing the ultrasound probe in the short axis view on the medial malleolus, using it as an anchor point. On the ultrasound view, we can identify the bright medial malleolus; the posterior tibialis tendon, just adjacent and posterior; the posterior tibial artery; and finally, the tibial nerve, with its characteristic honeycomb-like structure.

[00:01:23] Next, we will be discussing a tibial nerve block in the short axis view using an in-plane technique. Here, we have a live video of the tibial nerve injection from the provider's view on the left and the live ultrasound video on the right. Let's quickly review key anatomy. We can identify part of the medial malleolus, the posterior tibialis tendon, the posterior tibial artery, and the tibial nerve. Again, notice the relationship of its structures from anterior to posterior. In an in-plane technique, the needle can be seen advancing from posterior to anterior, with the needle tip located right about here. The needle then enters the region of the tibial nerve, where we can begin to see injection of fluid around the nerve. You can see the fluid beginning to encircle the tibial nerve, confirming a successful tibial nerve block.