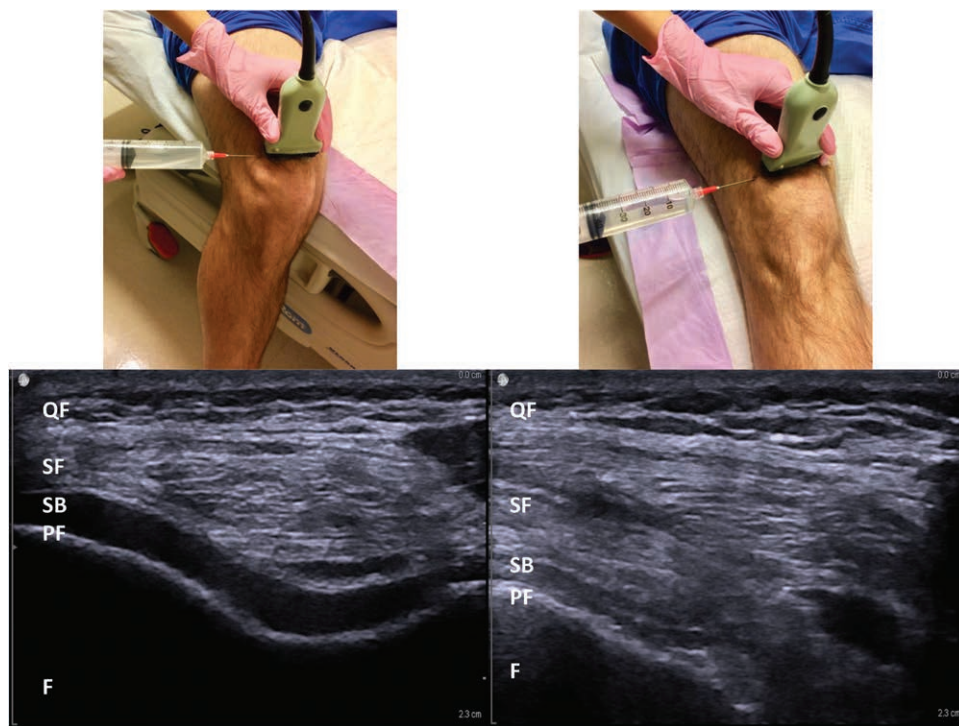


# Images in Anesthesiology: Ultrasound-guided Intraarticular Knee Injection

Neda Sadeghi, M.D., Amanda Kumar, M.D., James Kim, M.D., Joshua Dooley, M.D.



**I**NTRAARTICULAR knee injections with local anesthetic can be performed preoperatively for minor arthroscopic knee surgery. The benefit and safety of these injections have been confirmed by multiple studies.<sup>1,2</sup> The suprapatellar bursa is the most common site to perform an intraarticular knee injection.<sup>3</sup> We demonstrate that ultrasound guided intraarticular knee injection with the knee in flexion offers an alternative approach that may improve the image of the suprapatellar bursa when compared to the knee in extension.

The injection is performed under ultrasound guidance by placing the patient's knee in approxi-

mately 90° of flexion with the leg hanging off the side of the bed (*left*). A high-frequency linear transducer ultrasound probe is placed in the superolateral corner of the patella, directed medially toward the patellofemoral joint space. In the extended leg, from anterior to posterior, the *right* image shows the quadriceps femoris tendon (QF), suprapatellar fat pad (SF), suprapatellar bursa (SB), prefemoral fat pad (PF), and femur (F). When the knee is flexed to 90°, the size of the suprapatellar bursa image is increased. Using an in-plane approach, the needle is directed into the suprapatellar joint space, and 40 ml of ropivacaine 0.5% with epinephrine 1:400,000 is incrementally injected. These images demonstrate that placing the knee in flexion may improve the ultrasound image of the suprapatellar bursa in some patients.

## Competing Interests

Dr. Sadeghi received compensation from the New York School of Regional Anesthesia, New York, New York, for helping to teach a regional anesthesia/ultrasound course. The other authors declare no competing interests.

## Correspondence

Address correspondence to Dr. Sadeghi: nedsadeghi@gmail.com

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From the Department of Anesthesiology, Duke University Hospital, Durham, North Carolina.

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