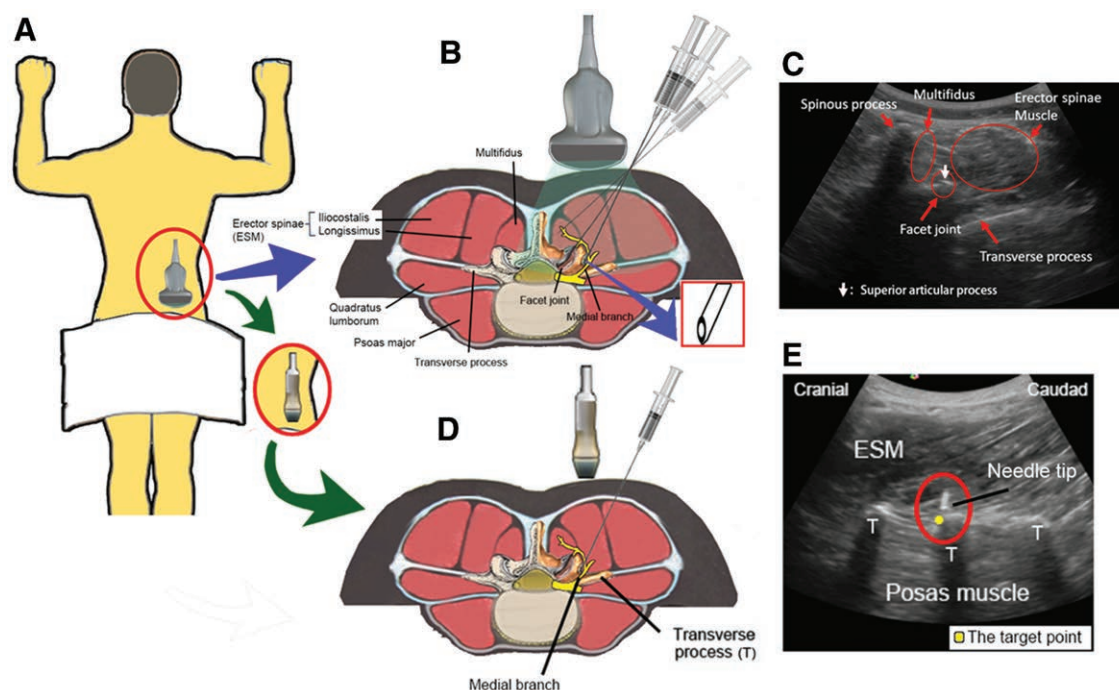


Ultrasound-guided Medial Branch Blocks, Facet Joint, and Multifidus Muscle Injections

How It Is Done under One Needle Insertion Point!

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Lumbar facet joint injections and medial branch blocks can be performed under computed tomography guidance.¹ Musculoskeletal ultrasound has been shown to be an accurate guiding tool in performing these procedures as well.² Song *et al.* have suggested that the lumbar multifidus muscle can be injected under ultrasound guidance in an out-of-plane approach.³ No publication has shown how to perform ultrasound-guided lumbar medial branch block, facet joint, and multifidus muscle injections under one needle insertion point. With the patient placed in a prone position and a pillow under the abdomen, a low-frequency curvilinear transducer is placed in a transverse plane to obtain the transverse paravertebral sonogram of the low back (*images A and C*).

Using the in-plane technique, the needle is inserted at an angle of about 45° to 60° to the skin, and in a lateral to

medial direction. For medial branch block, the needle is directed to the bottom of the groove between the lateral surface of the superior articular process and the cephalad margin of the respective transverse process (*image B*; Supplemental Digital Content, <http://links.lww.com/ALN/C104>). Once bony contact is felt, the transducer is then rotated 90° clockwise to obtain the longitudinal paravertebral sonogram to confirm that the needle tip is at the cranial edge of the transverse process² (*images D and E*; Supplemental Digital Content, <http://links.lww.com/ALN/C104>). After medial branch block, the transducer is then rotated counterclockwise back to the transverse plane. With adjustment of needle depth and bevel angle accordingly, further in-plane injections to the facet joint and multifidus muscle can be done (*image B*; Supplemental Digital Content, <http://links.lww.com/ALN/C104>).

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Competing Interests

The authors declare no competing interests.

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