

# Accuro™

by RIVANNA



## THREE-STEP TRAINING PROGRAM

What to expect when getting started with Accuro.



# Accuro™

## What to expect when getting started with Accuro:

Midline identification is the easiest skill to learn and provides the greatest clinical benefit.

Benefits are most apparent in challenging anatomies (e.g. scoliosis and morbidly obese).

Localizing the epidural space can require additional experience and practice.

Ultrasound-based estimates of epidural depth typically underestimate the needle depth due to skin compression.

## Three-Step Training Program.

1. Start by scanning volunteers and focus on identifying spinal midline.

### Scan technique:

Use a two-handed grip.

Make small, controlled motions.

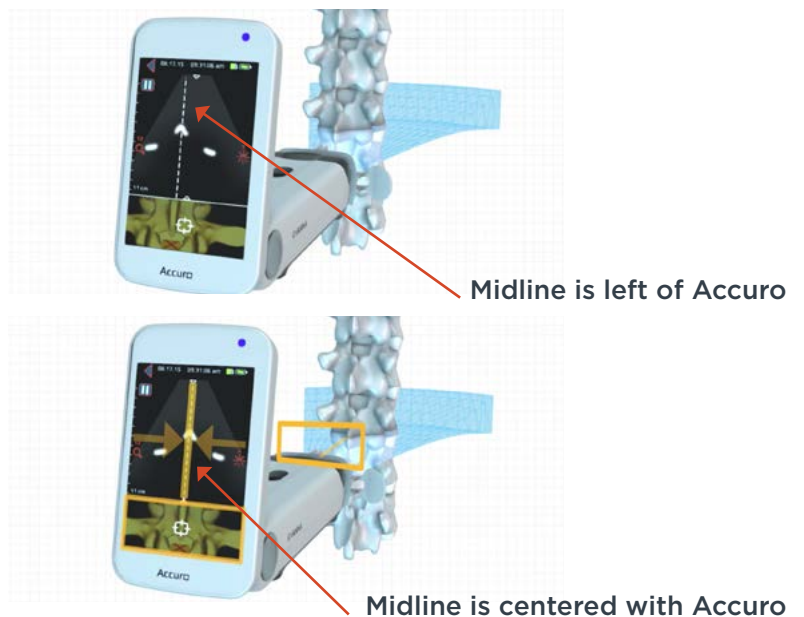
Practice marking with Locator™.

Confirm midline location via palpation.



### Tips for identifying and centering midline:

Move Accuro laterally until dashed midline indicator and 3D spine are centered on the screen.



2. PLEASE NOTE: USE ACCURO TO IDENTIFY MIDLINE ONLY in your first 5-10 patient cases. Augment with normal palpation techniques to identify insertion level and angle.

3. With midline identification mastered, execute the full six steps. Continue to augment with palpation. Scan sterile using the sterile cover and Locator kit.



1  
Identify  
Midline

2  
Find  
Interlaminar  
Space

3  
Determine  
Depth

4  
Remember  
Angle

5  
Mark Skin

6  
Insert Needle

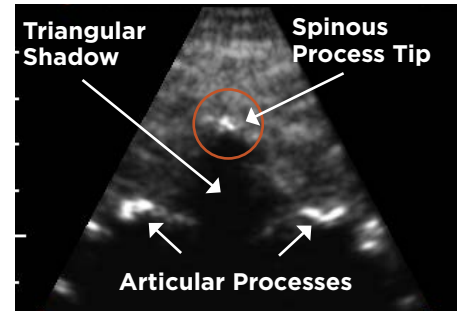
**Tips for Advanced Use of Accuro: Going Beyond Midline.**

1. Learning spine sonoanatomy will help you identify interlaminar spaces.

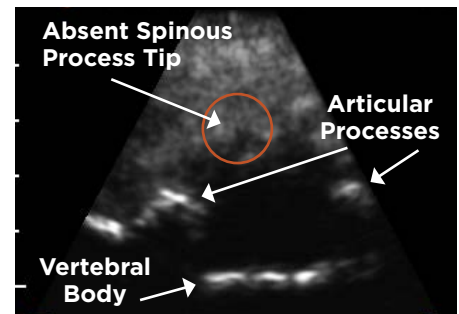
Focus on identifying two cross-sections, the spinous process and interlaminar space.

Practice identifying these cross-sections in subjects with normal anatomy before attempting to image obese or scoliotic patients.

Spinous Process Cross-Section



Interlaminar Cross-Section



**TIP:** the *absence* of the spinous process tip is a good indicator of an interlaminar space.

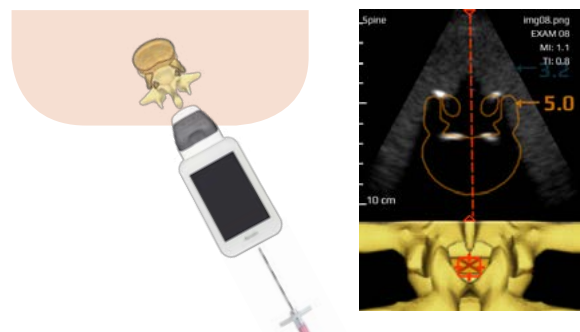
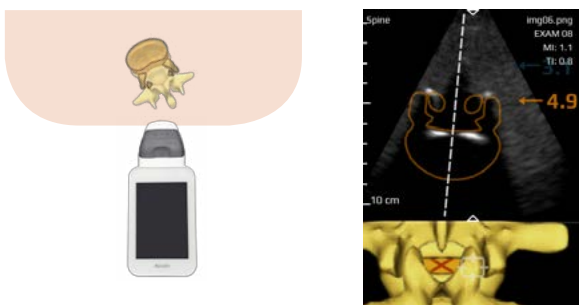
2. Fine adjustment of scan angle is often required to clearly identify an interlaminar space.



Midline is detected correctly, but presence of spinous process (SP) tip makes interpretation of this cross-section ambiguous—it is not a clear space.

**Adjust the angle of the Accuro in the superior/inferior direction until the SP tip is no longer in the image.**

3. The rotational component of scoliosis can be detected by a rotated midline indicator and uneven articular process heights in the sonoanatomy. Rotate device to compensate.



# Accuro™ DEVICE OPERATION



1. Turn on the Accuro by pressing the power on/off button. The 'Power On' button has multiple uses: Turns the Accuro on, wakes the Accuro from sleep, and saves still images and videos.
2. Place the Accuro in a sterile cover and administer the Locator needle guide.
3. Select the SPINE imaging preset for lumbar procedures.
4. The micro-USB port is used for charging and image export to a computer.

**RIVANNA™**

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