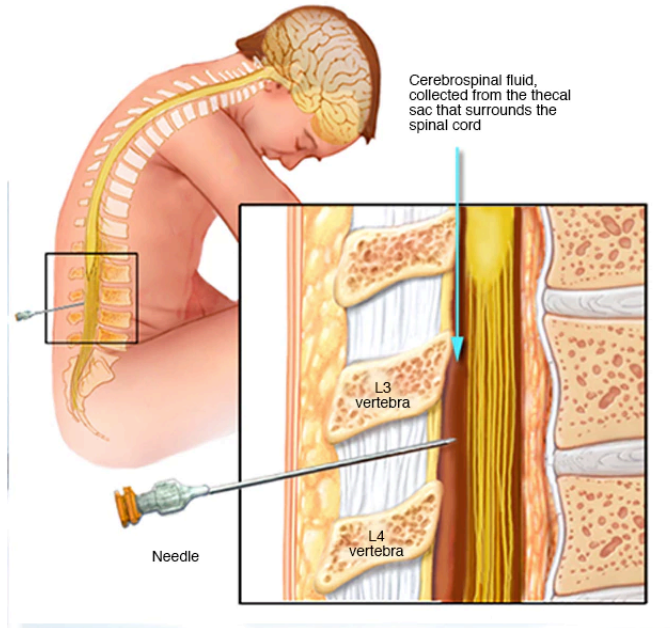


Ultrasound lumbar puncture guidance: a hands-free approach

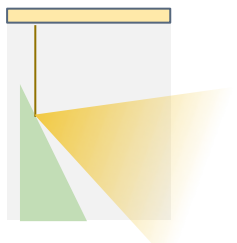


Lumbar puncture

- “Blind” procedure
- 400,000 performed annually
- 23.3% failure
- Obese patient has 50% higher rate of complications

Ultrasound lumbar puncture guidance: a hands-free approach

Linear array
Ultrasound energy
reflected away



Moving phased
array
Energy reflected back to the probe

