

Case Setup

Ultrasound Preparation:

- Ensure phased array, linear, and curvilinear probes are present, functioning and clean.
- Ensure the ultrasound screen is easily visible to the examinee, either directly or via screen share.

When Examinee Enters:

“Hello Doctor, I am Dr. _ and will be assisting as your examiner for this ultrasound case. As a reminder, please ask me to change probes, change depth, gain, or mode of ultrasound to assist you with the case. Please ask for help to reposition the patient or bed. Do you have any questions?”

Case vignette:

“As you have noted, the patient is presenting with **left leg swelling and pain**

“Doctor, what I would like for you to do now is demonstrate how to use the ultrasound of soft tissue to evaluate the patient’s leg pain.

Which probe would you like to use?”

Probe settings:

- Linear
 - Gain 10, depth 5cm.
- Phased array.
 - Gain 10, depth 5cm.
- Curvilinear
 - Gain 10, depth 5cm.

If asked to change probe settings:

- “Tell me when to stop adjusting gain and depth
 - Adjust the gain and depth slowly, allowing the examinee to stop you.

“When you find an acceptable image, please let me know.”

After examinee has selected their image, **using their own clip/image:**

“Thank you, I will take the probe from you now. Please direct your attention to the screen. Please point out any artifacts, anatomy, or pathology that would be important for this complaint.”

Then show the examinee the pathology clip/image:

“Now assume this image/clip is the image obtained of this patient. Please point out any pathology you see on this image/clip.”

Application:

“What would your immediate next steps be for this patient?”

-Refer to the grading criteria for next steps, if using as educational case.

End of case:

“Thank you, that concludes your case.”

Case Pearls & Pitfalls:

1. Necrotizing fasciitis on ultrasound can have several findings: subcutaneous thickening (relative to contralateral / unaffected side), fluid accumulating along fascial layers, and the key finding: subcutaneous emphysema (**gas**)
2. Be mindful of ultrasound adjacent to open wounds and/or recent procedures as there may be gas near these sites that aren't related to gas forming bacteria.