

# POCUS 101

## Understanding the principles of scanning

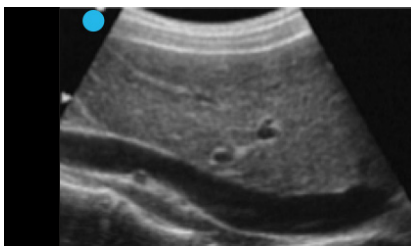
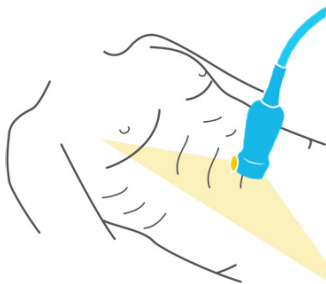
### Probe marker

Find the marker on your probe and the dot on the screen. The dot on the screen corresponds to the marker on your probe. That means, structures closest the probe marker, will appear closest to the dot side of the screen.

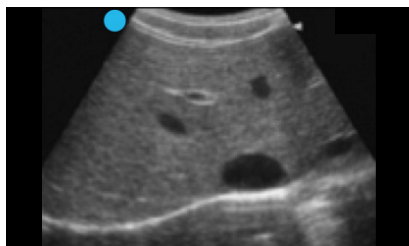
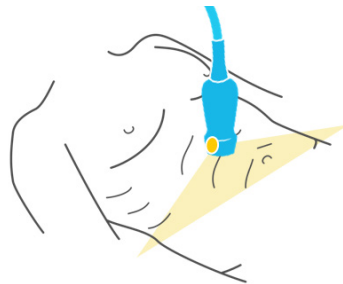


### Image orientation

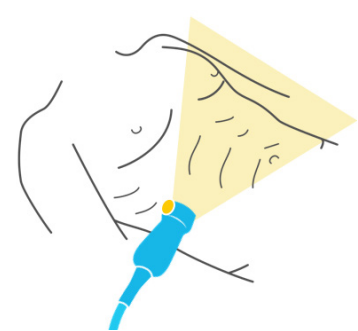
Longitudinal  
(Sagittal/long-axis view)



Transverse  
(Short-axis view)



Coronal

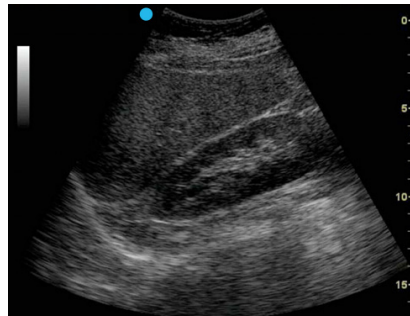


## Gain

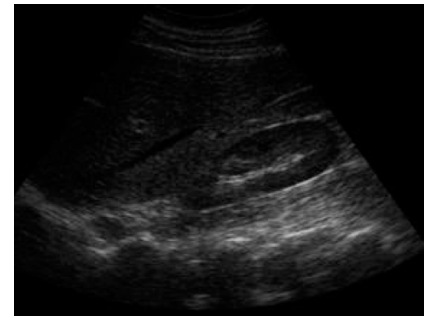
Make sure to have good contrast between structures.



Too much gain



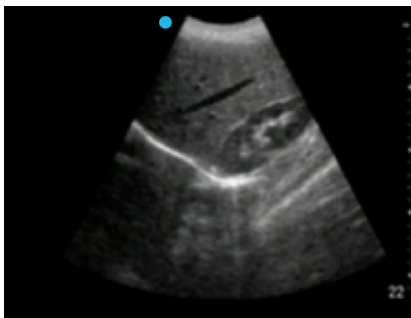
Just right



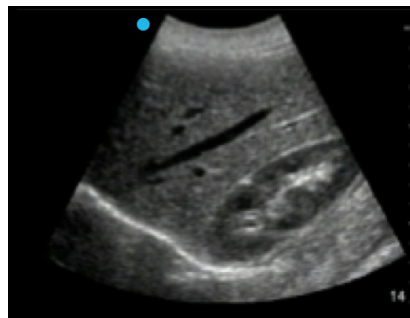
Too little gain

## Depth

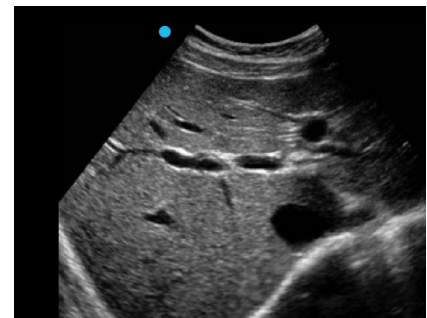
Make sure what you are focusing on is in the center of the screen.



Too much depth



Just right



Too little depth

## Scanning techniques

### Sliding

Holding the probe in the same orientation, move/slide the probe up/down/left/right on the patient. For example, if you are scanning the length of someone's abdominal aorta, you will start at the top and then slide your probe all the way down their abdomen to visualize it entirely.

### Fanning

Holding the probe in the same spot/location, tilt the probe. This is a VERY IMPORTANT technique and allows for the complete evaluation of a structure. In ultrasound we are performing scans in 2D, but you are looking at the 3D organs—fanning allows you to scan the entire width of that organ, so you don't miss any critical findings.

### Rotating

Keeping probe in same spot, turn the probe clockwise or counterclockwise. This technique is often used when scanning an organ in two planes. For example, if you are looking at the gallbladder in a long-axis view (with the marker pointing to the patient's head) and you now want to move to a short-axis view, you will keep the probe in the same location but rotate the head of the probe so that the marker points to the patient's right.