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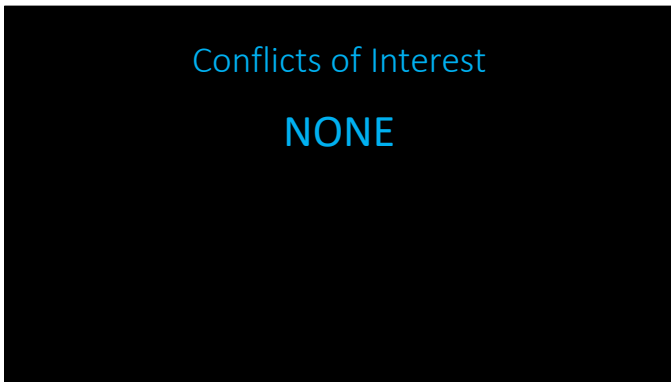
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### Objectives

- Gain confidence in acquiring PLAX, PSAX, A4ch, and Subxyphoid views
- Identify normal, moderately reduced, and severely reduced EF
- Measure EPSS

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### Find a view

- Cardiology mode = indicator on right side of screen
- PLAX - indicator to right shoulder
- PSAX – indicator to left shoulder
- A4Ch – indicator to left hip
- Subxyphoid – indicator to patient left

• LOOK AT IMAGE; WORRY LESS ABOUT PROBE ORIENTATION.

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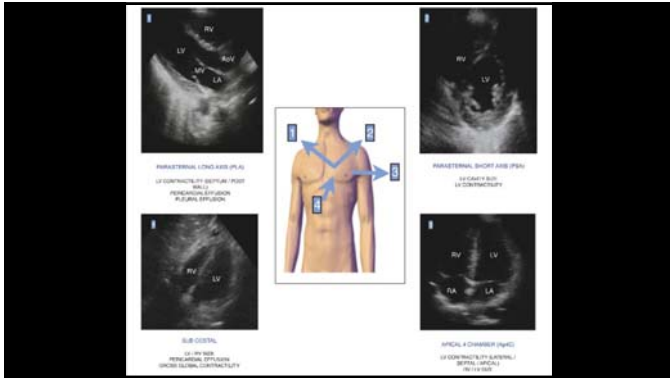
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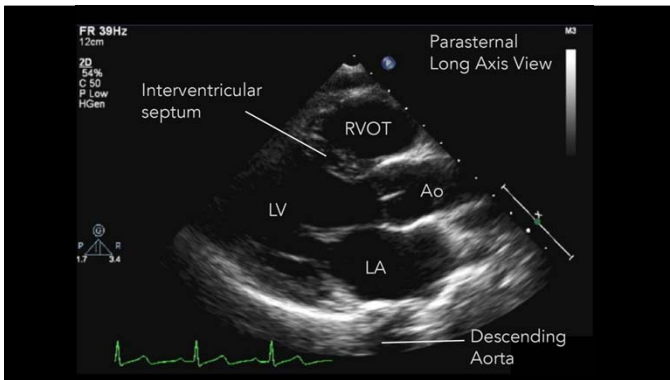
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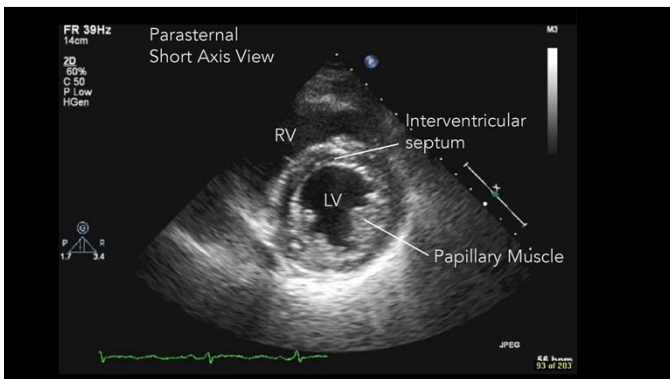
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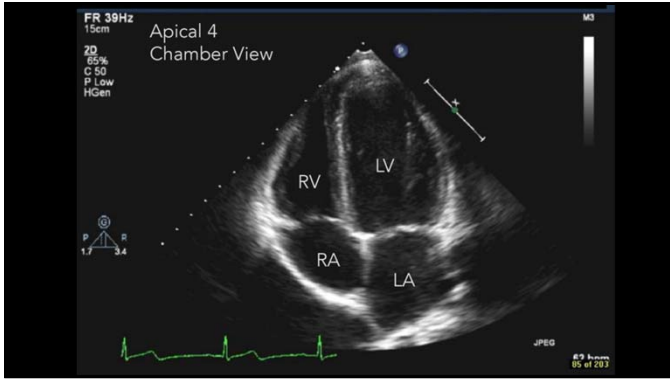
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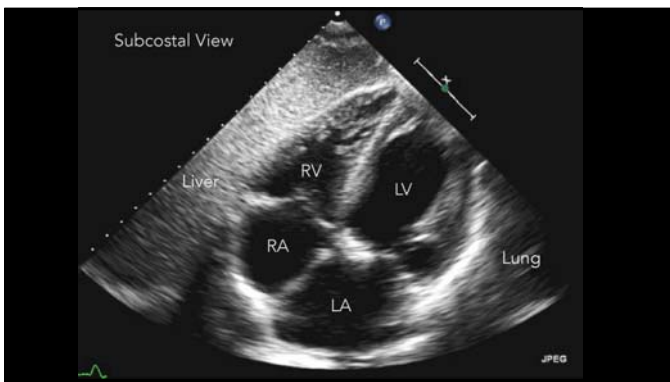
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### Objectives

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### Eyeballing the EF

- Fractional shortening (25-45% is normal)
- Myocardial thickening
- Annular movement
- EPSS

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### Categories of LVEF

- Normal 50-75%
- Hyperdynamic >75%
- Mild to Mod decrease 30-50%
- Severely decreased <30%

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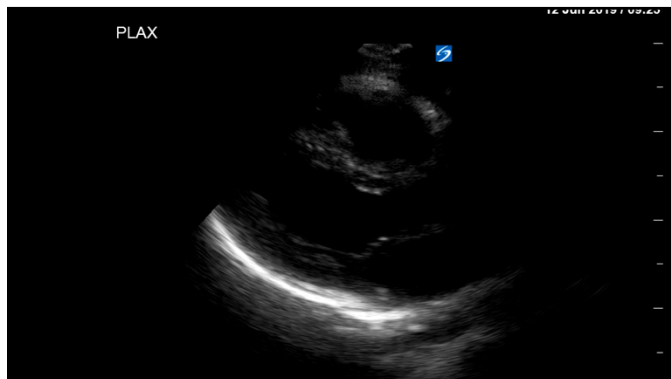
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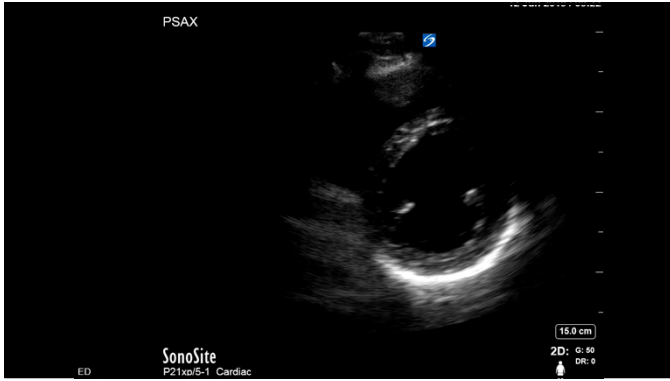
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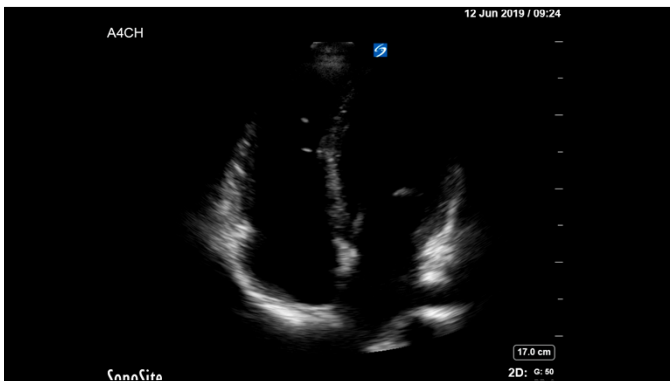
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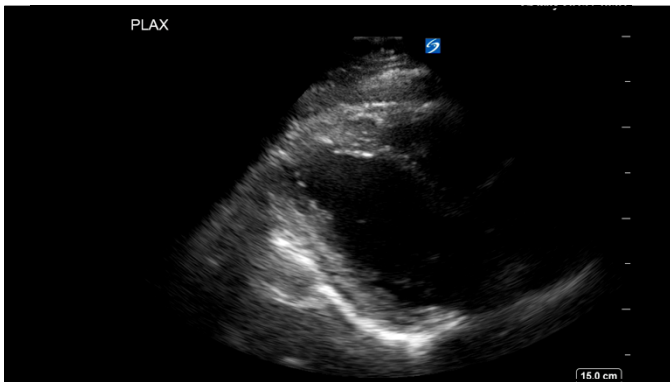
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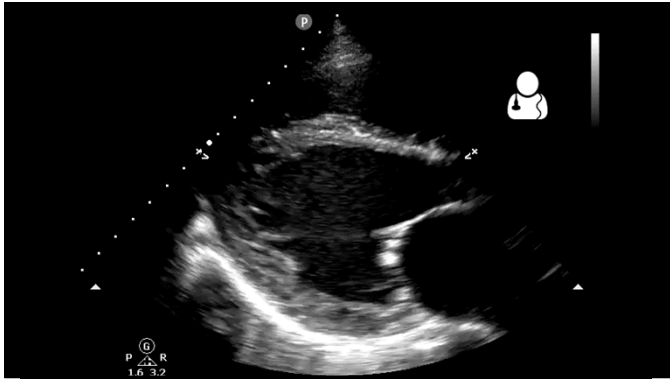
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### Objectives

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### End Point Septal Separation (EPSS)

- EPSS = distance between anterior mitral leaflet and ventricular septum
- M mode through tip of mitral valve leaflet
- Measure distance between E wave and septum
- < 7 mm → normal (50-75%)
- 10-18 mm → moderately reduced EF (30-50%)
- >18 mm → severely reduced EF (<30%)

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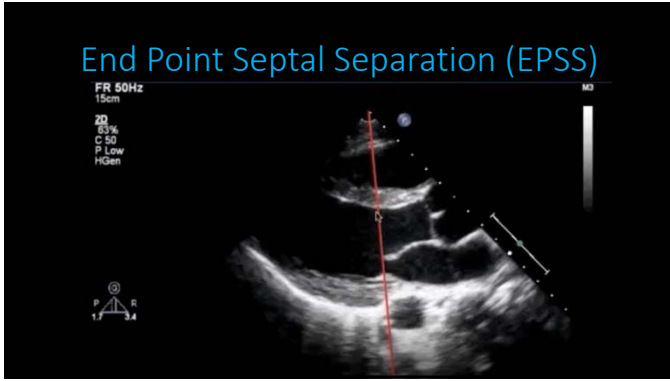
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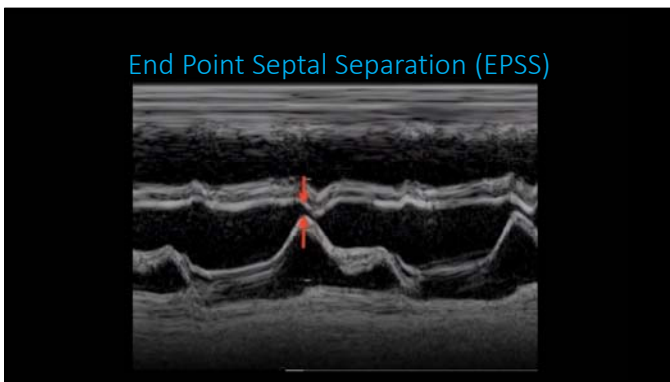
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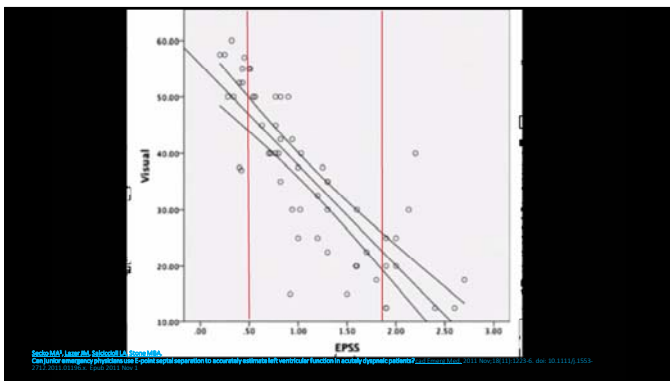
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## Pitfalls

- Causes of increased EPSS
  - Mitral valve stenosis
  - Aortic regurgitation
  - Mitral Calcification
  - LV Dilation

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