

Diastolic Dysfunction Made EASY!

INTERPRETATION:

**Grade 0
(Normal)**

$E/A \geq 0.8$
 $e' \geq 8 \text{ cm/s}$
 $E/e' < 8$

**Grade 1
(Impaired Relaxation)**

$E/A < 0.8$
 $e' < 8 \text{ cm/s}$
 $E/e' < 8$

**Grade 2
(Pseudonormal)**

$E/A \geq 0.8$
 $e' < 8 \text{ cm/s}$
 $E/e' 8 - 15$

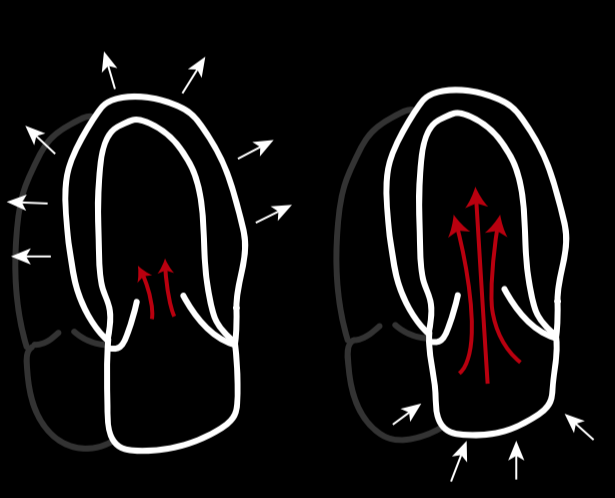
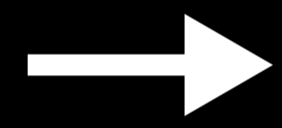
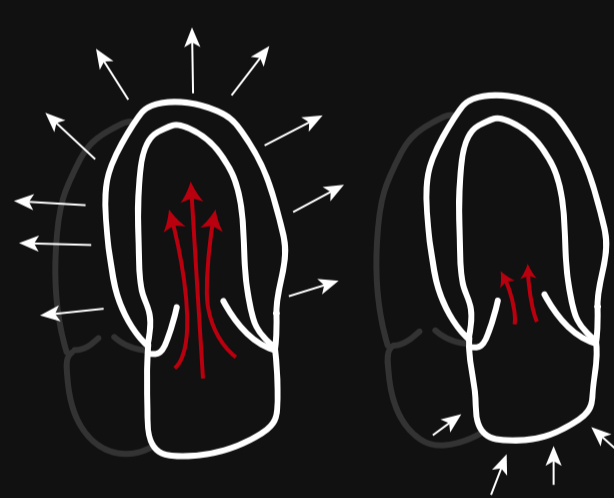
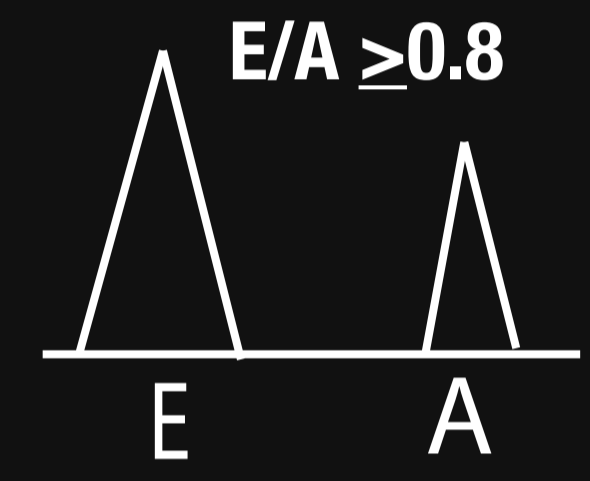
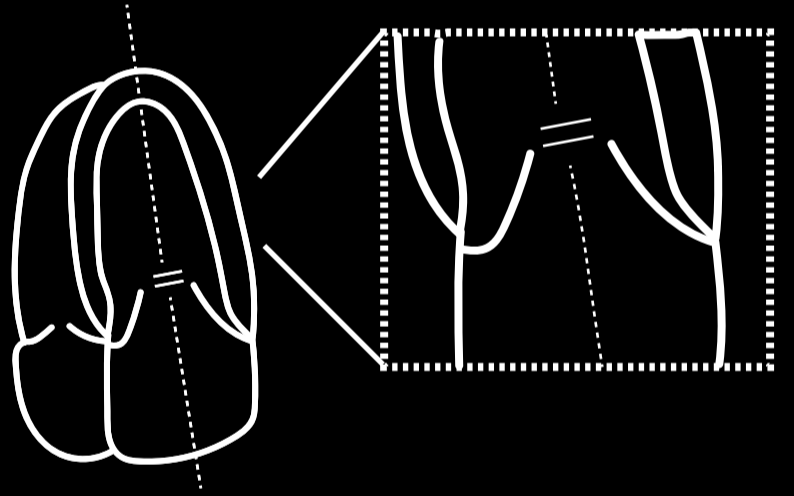
**Grade 3
(Restrictive)**

$E/A \geq 2$
 $e' \ll 8 \text{ cm/s}$
 $E/e' > 15$

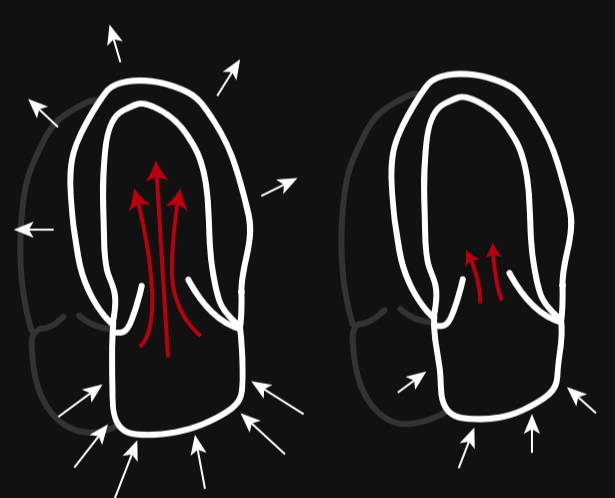
MITRAL INFLOW

Measures **BLOOD FLOW** coming into the Left Ventricle

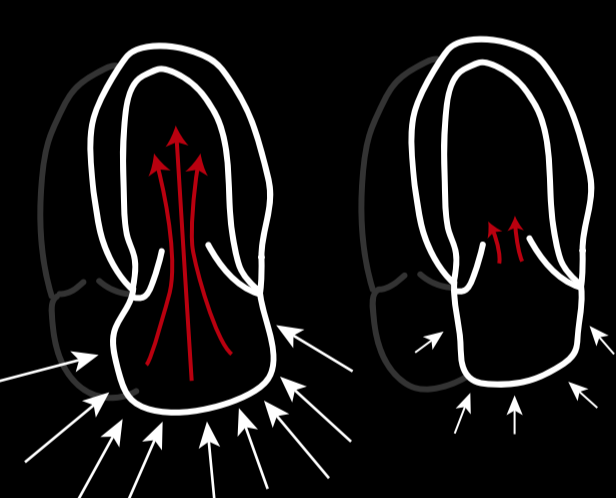
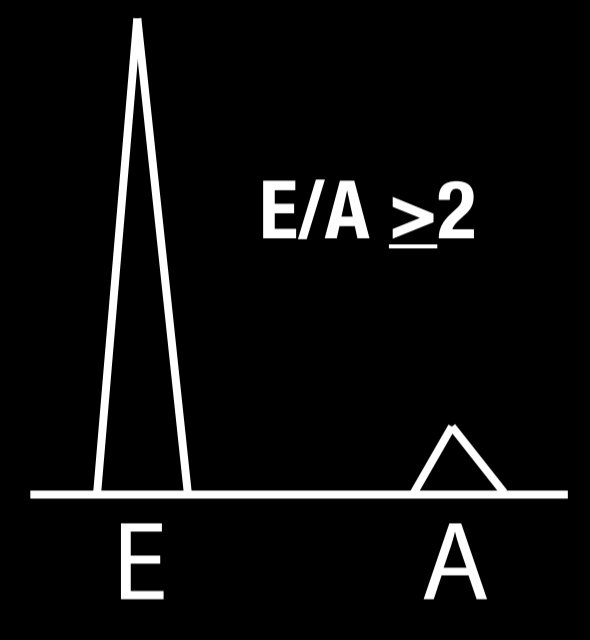
PULSE Wave gate at Mitral Valve Tips



Impaired Relaxation & Decreased LV Compliance



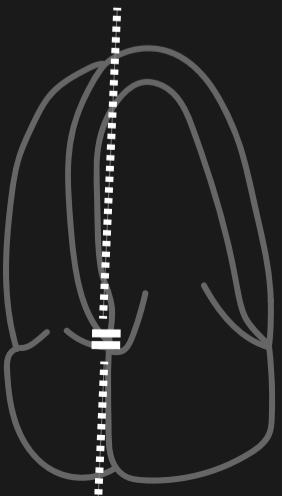
Increase in LAP causing more "Push" from LA during Early Filling



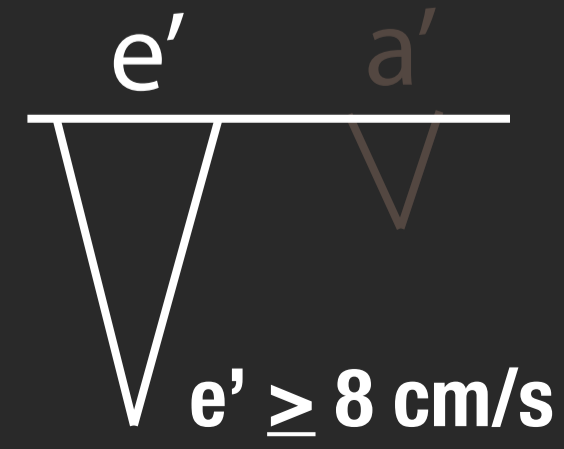
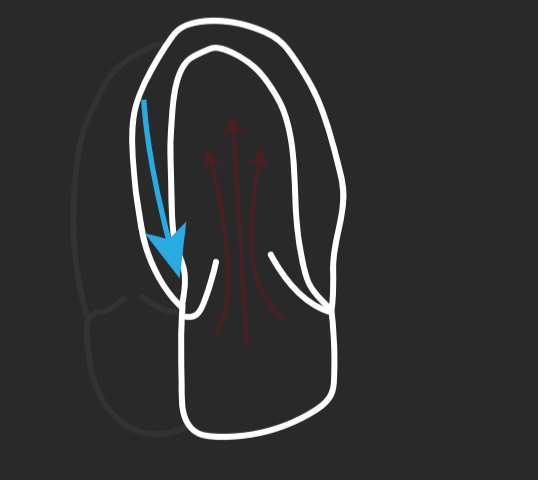
Severe increase in LAP causing more "Push" from LA during Early Filling. Also LA enlargement

TISSUE DOPPLER

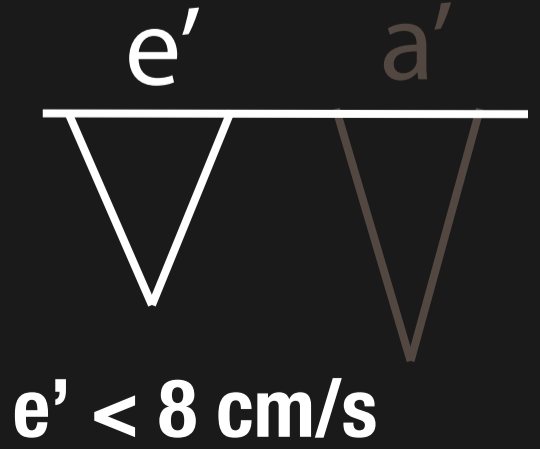
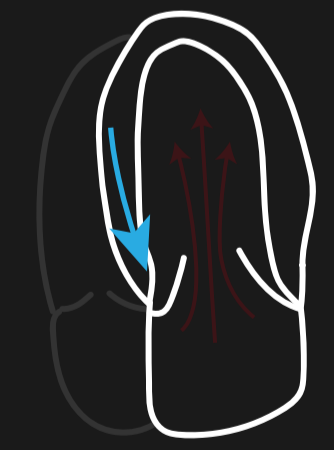
Measures **MUSCLE MOVEMENT** of the Left Ventricle AWAY from probe during Diastole



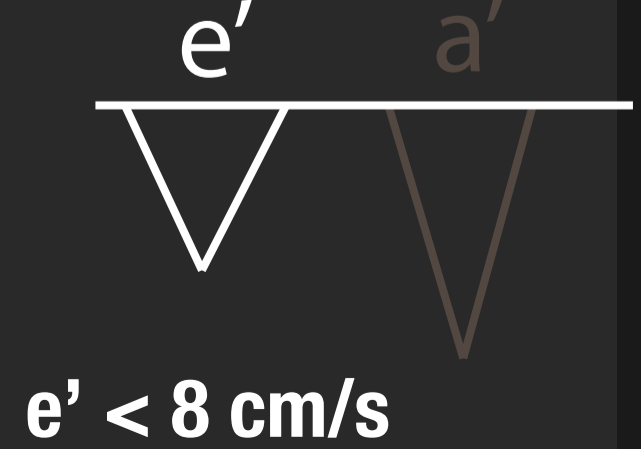
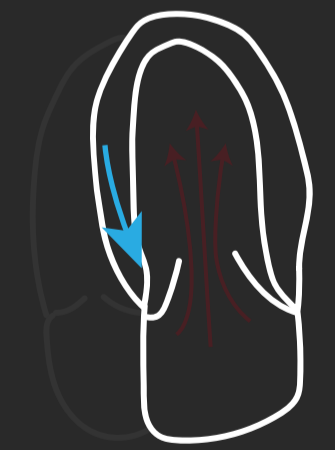
Tissue Doppler gate at Septal Annulus



Mild Decrease in LV Muscle Relaxation Speed



Moderate Decrease in LV Muscle Relaxation Speed



Severe Decrease in LV Muscle Relaxation Speed

