⑤ Isovolumetric Relaxation

→ when aortic > ventricular pressure, the semilunar valves close causing 'dub' S_2 sound

→ small ~~black~~ backflow of blood into ventricles
⇒ notch (dicrotic)

→ pressure in aorta + PT ↑↑ (dicrotic wave) followed by a decline in pressure

→ decline in pressure in ventricles depends on the rate of relaxation - lusitropy

→ although pressure in ventricles ↓↓, volume does not change as all valves are closed
volume that remains in ventricle = end-systolic volume

Stroke Volume = EDV − ESV

→ atrial pressure continues to rise and reaches a peak at v-wave

⑥ Rapid Filling

→ as ventricles relax, ventricles < atria and AV valves open

→ ~~intervals~~ intraventricular pressure continues to decrease because they are still relaxing but will slowly rise as they are being filled

→ opening of valve causes ↓ in atrial pressure (y-descent) - also seen on JVP trace

→ In children, S_3 sound is heard due to tensing of papillary muscles and chordae tendineae

⑦ Reduced Filling

→ as ventricles fill, pressure gradient becomes less steep + rate of filling ↓↓

→ ventricles 90% filled before atrial contraction