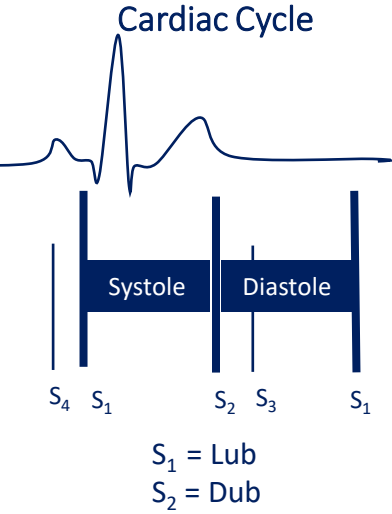


# Cardiac Auscultation



Heart Murmur Acoustic Characteristics		
Plateau		uniform loudness, associated with aortic valve insufficiency, mitral or tricuspid valve regurgitation, heard with VSD
Crescendo		gradual increase in sound over systole, some cases of pulmonic or aortic stenosis
Crescendo-decrescendo		sound gets louder then quieter, associated with aortic and pulmonic stenosis, murmurs associated with HCM, atrial septal defects
Decrescendo		sound start off loud then gets quieter, associated with diastolic murmurs (rare), aortic valve regurgitation
Continuous		murmur heard throughout entire cardiac cycle, associated with PDA

Murmur Identification	Location of Greatest Intensity	Timing	Grade*
mitral valve dysplasia	left apical	systolic	II-V of VI
tricuspid valve dysplasia	right apical	systolic	II-V of VI
aortic valve insufficiency (prolapse or regurgitation)	left dorsal basilar	diastolic, decrescendo	I-VI of VI
patent ductus arteriosus	left, basilar	continuous, systolic & diastolic	IV-VI of VI
ventricular septal defects aortic stenosis	right basilar, cranial dorsal region	systolic	V-VI/VI
subaortic stenosis or pulmonic stenosis	left basilar	systolic crescendo or crescendo-decrescendo	I-VI of VI
pulmonary disease (i.e. pulmonary hypertension) bundle branch blocks	left or right apical (if associated with AV valves), left or right basilar if associated with semilunar valves	split heart sound	+/- (as presence of murmur may mask)
mitral or tricuspid valve prolapse	left or right apical	systolic click	+/- (as presence of murmur may mask)

Cardiac Murmur Grading*	
Grade I	Barely detectable with stethoscope even for an experience listener
Grade II	Soft, however, detectable with stethoscope by trained professional, isolated to one location
Grade III	Increased loudness that radiates to more than one area, however, able to isolate with stethoscope to an identifiable point of intensity
Grade IV	Loud, heard easily anywhere on chest with stethoscope, may or may not identify focal point of intensity; no palpable cardiac thrill
Grade V	Very loud, heard anywhere on the chest with palpable cardiac thrill
Grade VI	Very loud with palpable cardiac thrill, often is heard with the stethoscope close but not touching the body wall of the thorax

\*Grade does not always indicate severity of disease however in some cardiac disease the higher the grade the more severe the disease. As some diseases progress grade may worsen beyond what is listed.