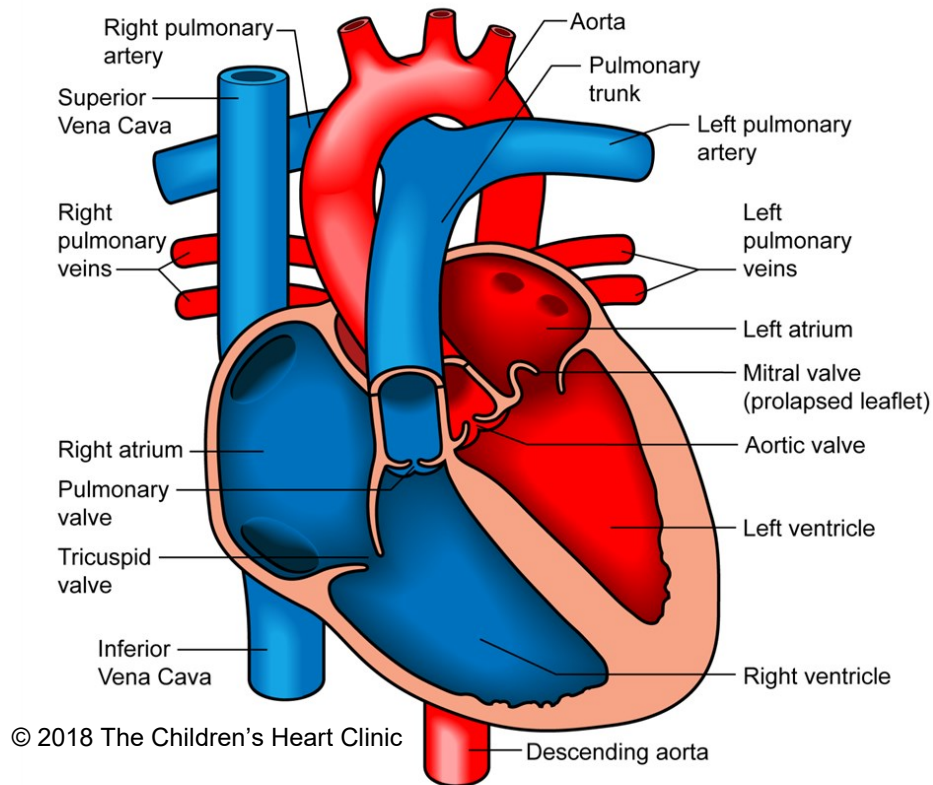
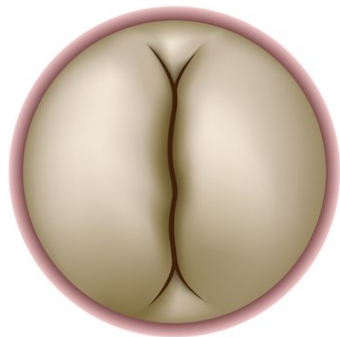


## Mitral Valve Prolapse



**Normal Mitral Valve**



**Prolapsed Mitral Valve**



Notes:

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## Mitral Valve Prolapse MVP

Mitral valve prolapse refers to an abnormality of the valve between the left atrium and left ventricle of the heart which may cause backward flow (mitral regurgitation) of blood from the left ventricle into the left atrium. It often is caused by thick or redundant mitral valve leaflets which bulge into the annulus (or base) of the valve. Prevalence tends to increase with age and it is usually seen in older children, adolescents, and adults. It is sometimes associated with connective tissue disorders such as Marfan or Ehlers-Danlos syndromes. It may also be associated with other heart anomalies such as a secundum atrial septal defect (ASD), ventricular septal defect (VSD) and/or Ebstein's anomaly of the tricuspid valve.

### Physical Exam/Symptoms:

- Children with mitral valve prolapse are typically asymptomatic.
- Brief attacks of vague, non-exertional chest pain, often described as stabbing and located near the apex of the heart, sometimes occur.
- Palpitations and syncope may also rarely occur.
- Children with MVP are commonly seen to have a slender build with a high incidence of skeletal anomalies, particularly related to curvature of the spine
- A mid-systolic click with or without a late systolic murmur best heard at the apex may be auscultated. This is sometimes brought out with different maneuvers such as breath holding or moving from a sitting to standing position.

### Diagnostics:

- ECG: Usually normal, may sometimes see T-wave inversion in inferior leads. Supraventricular tachycardia (SVT), premature atrial contractions or premature ventricular contractions are relatively uncommon but may occur.
- Chest X-Ray: Typically unremarkable with normal heart size unless severe mitral regurgitation causes left atrial enlargement. May see other skeletal anomalies present.
- Echocardiogram: Diagnostic.

### Medical Management/Treatment:

- If asymptomatic, no treatment or activity restrictions are needed.
- Medications called beta blockers, such as propranolol or atenolol, may be used if symptoms of palpitations, lightheadedness, dizziness, or syncope are present secondary to arrhythmias
- If symptomatic and demonstrating EKG abnormalities such as arrhythmias, or if there is a left ventricular function abnormality, restriction to low-intensity activities may be recommended.
- Bacterial endocarditis prophylaxis (SBE) prior to any dental procedures is no longer recommended for the majority of patients with MVP.
- Surgery to reconstruct or replace the valve is rarely indicated and only in cases with severe mitral regurgitation.

### Long-Term Outcomes/Follow-Up:

- Timing and frequency of follow up typically is related to how well the valve functions.
- Long-term outcomes are generally excellent.
- There is a higher risk for cardiovascular events later in life without clear etiology; studies are currently in progress to help determine which risk factors may contribute to this finding.