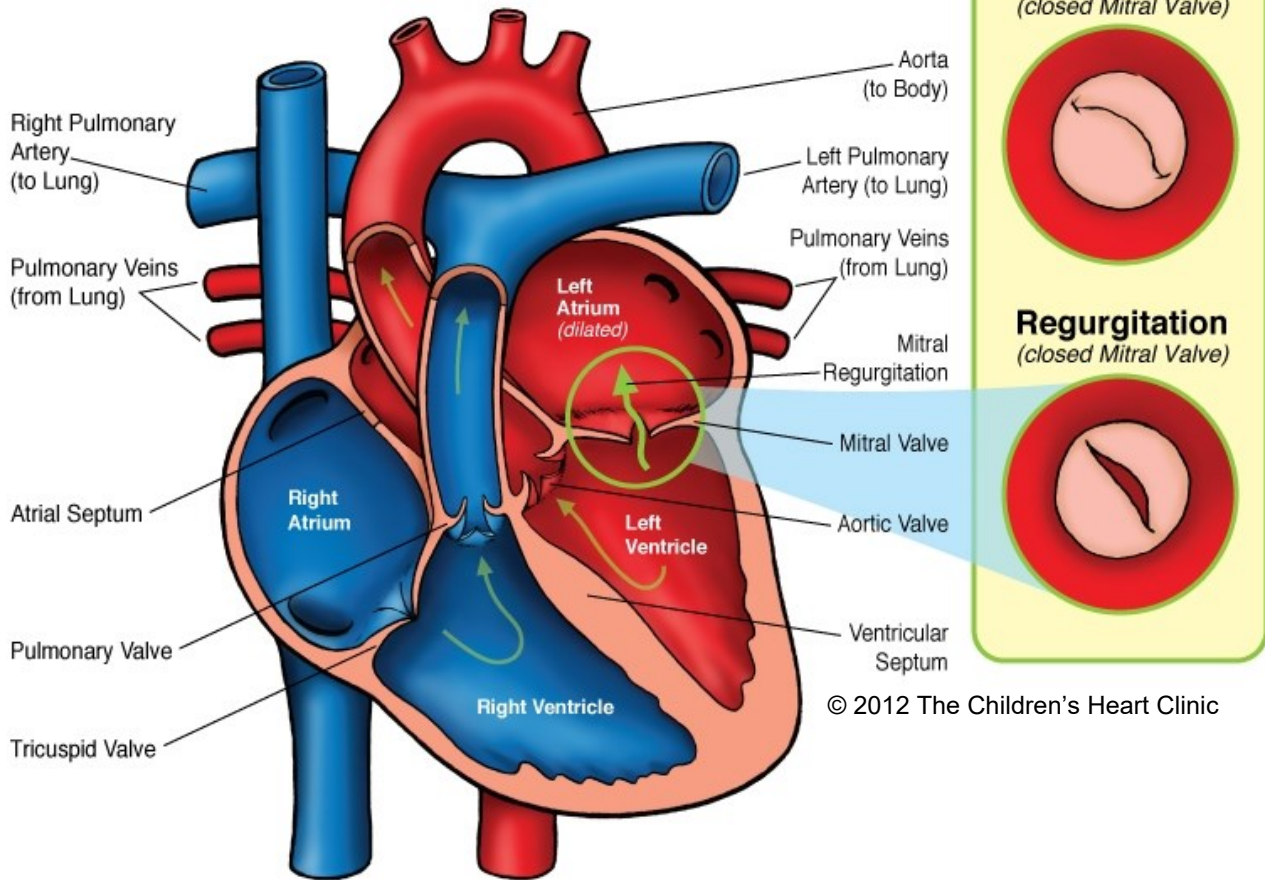


Mitral Regurgitation



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Notes:

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Mitral Regurgitation (MR)

Mitral regurgitation (MR) refers to the regurgitation (backflow) of blood through the mitral valve from the left ventricle to the left atrium due to lack of complete valve closure. This backflow of blood leads to volume overload and dilation of the left atrial and ventricular chambers. The degree of MR varies. MR is more common than mitral stenosis (narrowing) (MS). MR is usually congenital and may be associated with atrioventricular septal defect (AVSD), aortic regurgitation, dilated cardiomyopathy or Marfan Syndrome. MR that is associated with AVSD is often due to a cleft (split) in the mitral valve. If MR is long-standing, pulmonary hypertension may result.

Physical Exam/Symptoms:

- Infants and children with mild MR are usually asymptomatic.
- Fatigue and heart palpitations may rarely occur.
- The first heart sound (S1) is normal. S2 may be widely split due to shortening of left ventricular ejection and early closure of the aortic valve. S3 is often present and loud due to increased flow across the mitral orifice during diastole. A regurgitant systolic murmur may be heard at the apex and transmitted to the left axilla. A diastolic rumble may be auscultated at the apex as well.
- In severe MR, an apical heave may be palpated.
- Atrial arrhythmias may occur in adults, but are rare in children.

Diagnostics:

- Chest X-Ray: Left atrial and ventricular hypertrophy are often present.
- EKG: Normal in mild cases. Left ventricular hypertrophy or dominance is usually present in moderate to severe MR.
- Echocardiogram: Diagnostic.

Medical Management/Treatment:

- Bacterial endocarditis prophylaxis (SBE) prior to any dental procedures.
- Medications such as diuretics (Lasix) or afterload-reducing agents (enalapril, captopril) are useful if congestive heart failure develops and to promote cardiac output.
- Surgical repair may be warranted. The valve may often be repaired, by repairing a cleft if present or annuloplasty if central regurgitation is present. In some cases, repair is not possible and the valve may require replacement (see Mitral Valve Replacement). Your cardiologist will discuss the need and timing of surgery with you if applicable.
- Life-long cardiology follow-up for monitoring of valve function every 6-12 months.

Long-Term Outcomes/Follow-Up:

- Anticoagulation with Coumadin and Aspirin is warranted for patients with a mechanical mitral valve.
- Bioprosthetic mitral valve replacement requires aspirin therapy.
- Patients with atrial flutter may require rhythm medications and/or anticoagulation.
- Bacterial endocarditis prophylaxis is required in patients who've undergone mitral valve replacement.