

Aortic Stenosis

When the aortic valve opens, oxygen-rich (red) blood flows from the left ventricle to the aorta. (That's the large artery that sends oxygen-rich blood through the body.) Stenosis (narrowing) of the aortic valve makes it hard for the heart to pump blood to the body.

Aortic stenosis occurs when the aortic valve didn't form properly. A normal valve has three parts (leaflets or cusps), but a stenotic valve may have only one cusp (unicuspid) or two cusps (bicuspid), which are thick and stiff.

Sometimes stenosis is severe and symptoms occur in infancy. Otherwise, most children with aortic stenosis have no symptoms. In some children, chest pain, unusual tiring, dizziness, or fainting may occur. The need for surgery depends on how severe the stenosis is. In children, the surgeon may be able to enlarge the valve opening. Although surgery may improve the stenosis, the valve remains deformed. Eventually, replacing the valve with an artificial one may be needed.

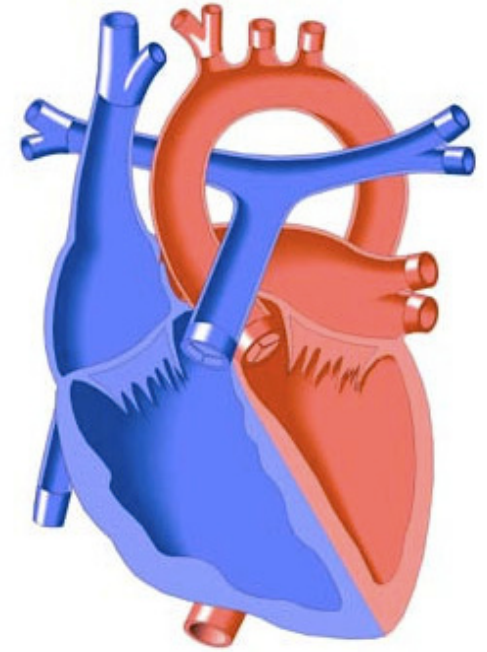
A new procedure called balloon valvuloplasty has been used in some children who have aortic stenosis. During cardiac catheterization, a special catheter containing a balloon is placed across the constricted or narrowed valve. Then the balloon is inflated, and the valve stretched open. The long-term results of this procedure are still being studied.

Children with aortic stenosis need lifelong medical follow-up. Even mild stenosis may

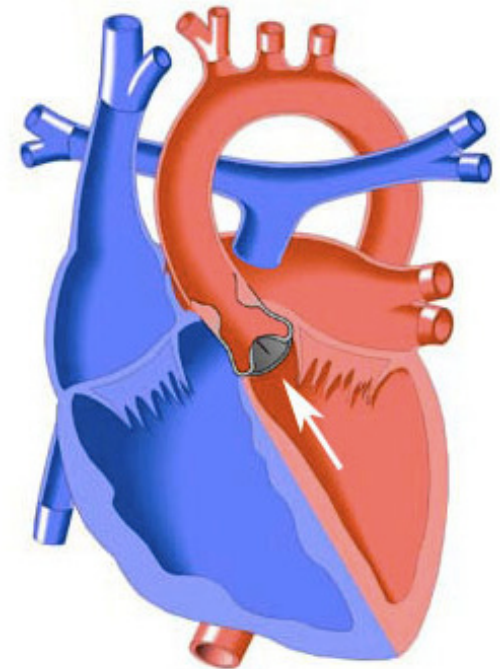
worsen over time. Also, surgical relief of a blockage is sometimes incomplete. After surgery the valve keeps working in a mildly abnormal way. Sometimes patients may have to limit how much they can do of some kinds of exercise. Check with your pediatric cardiologist about these exercise limitations.

Children with aortic stenosis risk an infection of the valve (endocarditis) before and after surgery. Your child should be given antibiotics such as amoxicillin before dental work and certain surgeries. Good dental hygiene lowers the risk of endocarditis. For more information about dental hygiene and preventing endocarditis, ask your pediatric cardiologist.

Normal



Defect



Aortic Valve
Stenosis
(AVS)