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Pulmonary Stenosis (PS)

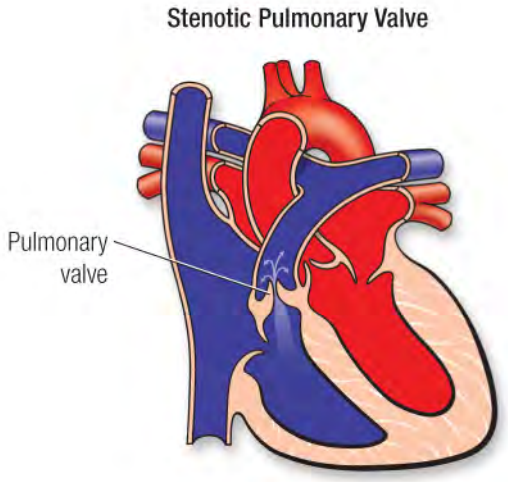
Note: before reading the specific defect information and the image(s) that are associated with them, it will be helpful to review normal heart function.

What is it?

The pulmonary valve opens to let blood flow from the right ventricle to the lungs. Narrowing of the pulmonary valve (valvar pulmonary stenosis) causes the right ventricle to pump harder to get blood past the blockage.

What causes it?

In most children, the cause isn't known. It's a common type of heart defect. Some children can have other heart defects along with PS.



How does it affect the heart?

Normally the right side of the heart pumps blood to the lungs. In a child with PS, the pressure is much higher than normal in the right pumping chamber (right ventricle) and the heart must work harder to pump blood out into the lung arteries. Over time this can cause damage to the overworked heart muscle.

How does the PS affect my child?

If the stenosis is severe, especially in babies, some cyanosis (blueness) may occur. Older children usually have no symptoms.

What can be done about the pulmonary valve?

The pulmonary valve can be treated to improve the obstruction and leak, but the valve can't be made normal.

Treatment is needed when the pressure in the right ventricle is high (even though there may be no symptoms). In most children the obstruction can be relieved during cardiac catheterization by balloon valvuloplasty. In this procedure, a special tool, a catheter containing a balloon, is placed across the pulmonary valve. The balloon is inflated for a short time to stretch open the valve. Some children may need surgery.

What activities can my child do?

If the obstruction is mild, or if the PS obstruction has mostly been relieved with a balloon or surgery, your child may not need any special precautions regarding physical activities, and can participate in normal activities without increased risk.

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What will my child need in the future?

The long-term outlook after balloon valvuloplasty or surgery is excellent, and usually no medicines and no additional surgery are needed. Your child's pediatric cardiologist will examine your child periodically to look for uncommon problems such as worsening of the obstruction again.

What about preventing endocarditis?

Ask about your child's risk of developing endocarditis. Children who have had pulmonary valve replacement will need to receive antibiotics before certain dental procedures. See the section on endocarditis for more information.

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