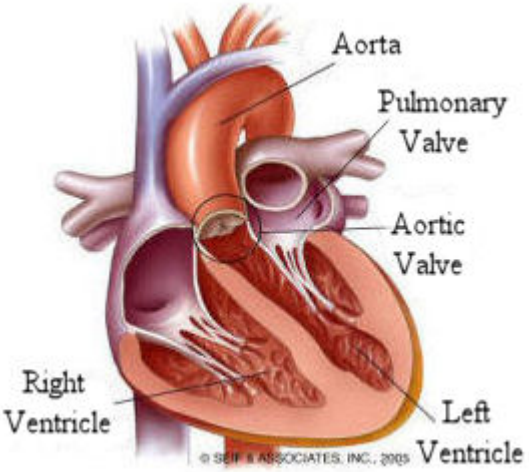
Aortic Stenosis

Aortic stenosis (*AS*) is a condition when the valve between the heart and the aorta (the big vessel that pumps blood to the entire body) becomes narrowed. When this valve is small (*stenotic*), it makes the heart work harder. This can lead to significant problems. *AS* is fixed with surgery.



CAUSES

AS is caused by many disorders. Common cause are:

- Rheumatic fever. This fever may happen if you do not get treatment for strep throat.
- Hardening (*calcification*) of the valve.
- Disorders present at birth (*congenital abnormalities*).
- Valve diseases.
- Coronary artery disease.
- Heart murmur.

AS is more common among men.

SYMPTOMS

- Fainting or weakness with activity, exercise problems, dizziness.
- Shortness of breath.
- Sensation of feeling the heart beat (palpitations).
- Feelings of pain (crushing, squeezing, pressure, or tightness) in the chest.
- Increased shortness of breath and pain with exercise that is relieved with rest.
- The valve can become infected, with symptoms including fever or fatigue.

AS may show no symptoms until late in the course of the disease. Often problems do not happen until middle age or older.

DIAGNOSIS

Your caregiver may suspect *AS* based on your history and physical exam. Other studies may include:

- Chest X-ray. This may show enlargement (*dilation*) of the aorta.
- An ECG. This may show left-ventricular enlargement or arrhythmias (unusual pattern of heart beats) such as ventricular tachycardia or sinus bradycardia.
- Echocardiogram (sonogram test of the heart).
- CT or MRI scan of the chest.
- Transesophageal echocardiogram (TEE).
- An aortic angiography.
- Left cardiac catheterization and/or aortic angiography.

TREATMENT

- If there are mild to no symptoms, only observation may be needed. With severe problems, hospitalization may be necessary.
- Medications are available to treat heart failure and improve exercise tolerance.
- Activity may need to be reduced or stopped. Physical exams should be done every 6 months. EKGs should be done on a yearly basis or as suggested by your caregiver.
- Surgical repair or replacement of the valve is the preferred treatment for symptomatic *AS*. Your caregiver will designate a surgeon specializing in aortic valve surgery. The surgeon will make suggestions about what type of surgery is best for you.

HOME CARE INSTRUCTIONS

- Echocardiograms (a sound wave picture of the heart and great vessels) are done periodically to monitor treatment.

- Notify the health care provider or dentist about any history of heart valve disease before treatment for any condition. Any dental work, including cleaning, and any invasive procedure can introduce germs (*bacteria*) into the bloodstream. Germs can infect a weakened valve causing endocarditis.
- Take any medications as prescribed.

SEEK MEDICAL CARE IF YOU DEVELOP:

- Any chest or breathing problems that get worse.
- Irregular heartbeats.
- Unexplained fevers.

SEEK IMMEDIATE MEDICAL CARE IF YOU DEVELOP:

- New or severe shortness of breath.
- Lightheadedness.
- New or severe chest pains.
- Rapid or irregular heartbeats related to the above symptoms.

Document Released: 09/15/2004 Document Re-Released: 01/06/2009
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