

DEMYSTIFYING HEART DISEASE

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HEART MURMURS: Causes & Consequences

A heart murmur is a specific sound that can be heard with a stethoscope placed over a patient's heart. Depending on the type of murmur, its existence may indicate either the presence of, or the potential for the development of a heart problem.

HOW THE HEART WORKS

It is important to understand the function of the heart to fully appreciate the importance of heart murmurs. The heart is a muscle made up of two sides – a left and a right side. Each side has two chambers. Thus, the heart consists of four individual chambers that contract in rhythmic sequence to pump blood to all parts of the body.

With each heart beat, the two chambers on the right side of the heart pump blood through the lungs for oxygen enrichment. Then, they empty the oxygen-rich blood into the left side heart chambers, which pump it to all parts of the body. Blood eventually drains back into the right side chambers, and the sequence begins again.

This sequence of events, with blood traveling in one direction from right to left through the heart, is crucial for proper functioning. A system of four one-way valves, each separating one heart chamber from the other, is indispensable in making this possible.

HEART MURMURS

Heart murmurs are important because they may indicate abnormalities in valve function that disrupt this crucial one-directional flow.

At the beginning of each heart beat, the heart valves open to allow blood to be pumped out of the heart chambers. At the end of each beat, the valves close to prevent leakage of blood back into the heart. If a valve is incompetent (also called leaky) it closes incompletely enabling backward leakage of blood in the wrong direction. If a valve is stenotic (also called obstructed) it does not open enough to allow blood to be pumped out.

Leaky or obstructed valves cause characteristic sounding murmurs. In either valve obstruction or leakage, progressive strain on the heart can occur with resultant weakness and damage to the heart muscle itself. EKG's, Chest X-rays, and Sonograms of the heart can further indicate the severity of heart damage arising as a result of valve leakage or obstruction.

WHO'S AT RISK?

Causes of leaking or blocked valves are varied. Often, they arise as a result of birth defects. Infection may occur on heart valves which can produce damage, obstruction and leakage. This is not uncommon in intravenous drug users.

People that have had rheumatic fever in childhood are at definite risk for development of valve damage in adult life. Fortunately, the incidence of rheumatic fever in the U.S. today is very low. Calcium deposits on valves may also result in damage and murmurs. In addition, valves may be damaged as a result of heart attacks.

THE TREATMENT

While many murmurs are insignificant and merely reflect passage of blood through the heart, your physician can detect potentially dangerous murmurs by their characteristic sounds.

Treatment of a leaky or blocked valve depends on its severity. In extreme cases, surgery for valve replacement may be necessary. In mild to moderate cases, drug treatment and close follow-up may be all that is required to prevent further damage.
