

## The Word on Heart Murmurs

### What Is A Heart Murmur?

When the doctor listens to your heart through a stethoscope, she normally hears your heartbeat making a sound that goes something like *lub-dub*. If she hears an additional noise, such as a slight whistling or whooshing, this is a heart murmur.

### Innocent Murmurs

Heart murmurs can stem from a number of causes. Usually, they are harmless. The technical term for a heart murmur that does not signify danger is an *innocent murmur*.

Innocent murmurs are particularly common in children. At least 30% of children have an innocent heart murmur at some point before their teens. These murmurs usually fade away by mid-adolescence. They require no treatment, and children should not be excluded from sports or other physical activity because of an innocent heart murmur.

In adults, innocent murmurs can be caused by fever, or even by stress, both of which create a temporary speed-up of blood flow. When the stress or the fever goes away, so does the murmur.

Other non-heart-related conditions that can give rise to heart murmur include anemia, pregnancy, and hyperthyroidism. Again, when these conditions are resolved, the heart murmur disappears.

### Abnormal Murmurs

However, some heart murmurs are caused by problems within the heart itself. These more dangerous heart murmurs are known as *abnormal murmurs*.

The most common cause of an abnormal murmur is a problem with a heart valve. *Stenosis*, the narrowing of a heart valve, may keep the valve from opening correctly, preventing blood from flowing through properly. Or a valve may be unable to close completely, which causes *regurgitation*, a leaking backward of blood through the unclosed valve. Both of these conditions will produce a type of heart murmur.

Other possible causes of abnormal murmurs include a narrowing of the heart's blood vessels or a hole in one of the heart's walls. These are serious conditions that require medication and/or surgical intervention.

## **Diagnosing the Cause of A Heart Murmur**

Heart murmurs, by themselves, do not cause symptoms. Patients cannot hear their own heart murmurs; only a physician can do so with the aid of a stethoscope. Therefore, heart murmurs are generally discovered during routine physical examinations, or during examinations for causes of other symptoms, such as shortness of breath or chest pain.

When a physician listens to a heart murmur, she can often diagnose its cause by carefully assessing the loudness, location, and timing of the murmur. The physician will usually be able to distinguish an innocent murmur from an abnormal murmur. Taken together with other physical exam findings, the sound of a heart murmur can tell a skilled cardiologist whether an abnormal murmur is caused by leaky or narrowed heart valves, which of the four heart valves is involved, and how severe the abnormality is.

Some heart murmurs require additional diagnostic testing, however. An *echocardiogram* is a type of ultrasound test that uses high-pitched sound waves to produce an image of the heart and heart valves. An echocardiogram can reveal the source of an abnormal heart murmur. A standard chest x-ray will also show the size and shape of the heart, and may be used in diagnosing the cause of a heart murmur.

## **Treatment of Abnormal Heart Murmurs**

Treatment of an abnormal heart murmur depends on the cause and severity of the problem. Antibiotic medication can prevent or eliminate bacterial infection of the heart valves. Blood thinners combat blood clots that may block the blood vessels in the heart. If the heart sac is inflamed, anti-inflammatory drugs may be prescribed.

In some cases, surgery may be indicated. A heart valve may have to be replaced, a tumor in the heart may need to be removed, or a congenital heart defect may require correction.

Once an abnormal heart murmur is detected, your physician or cardiologist must carefully identify the underlying cause before prescribing a cure.

Keep in mind, however, that most heart murmurs are innocent, in adults as well as children.