

Coronary Artery Disease Fact Sheet

About Coronary Artery Disease

In coronary artery disease, the coronary arteries become narrowed or blocked by a gradual buildup of fat (cholesterol) within the artery wall, which reduces the blood flow to the heart muscle. This buildup is called "atherosclerotic plaque" or simply "plaque," and may start slowly progressing in childhood. If the plaque narrows the channel of the artery, it may make it difficult for adequate quantities of blood to flow to the heart.

Coronary Arteries

The heart has three main coronary arteries. These are located:

In the front of the heart (LAD)

In the back of the heart (CIRC)

On the right side of the heart (RCA)

One, two or all three of these coronary arteries or their branches may be involved in the process of narrowing or blockage. The blockage may be partial or complete. When a coronary artery becomes partially or completely blocked, the part of the heart muscle supplied by the blood vessel does not get its required blood supply.

Symptoms

The first symptom generally is chest pain or chest discomfort, which may be described as a pressure or heaviness beneath the breastbone (sternum), with associated neck, jaw or arm discomfort. The pattern varies from patient to patient.

Patients may have associated symptoms of sweating, shortness of breath or nausea. This group of symptoms is referred to as angina. Angina is commonly brought on by physical work, mental work or stress, but may come on at rest or even while sleeping at night. Angina may be improved with the use of nitroglycerine (NTG), which helps the heart cope with these partial blockages.

Although women may experience all of the above, they are more likely to experience "atypical" symptoms. Many women report a hot or burning sensation, tenderness to touch, in the back, shoulders, arms or jaw; often they have no chest discomfort at all.

Diagnosis

If the blood supply to the blockage is not corrected rapidly, you may develop a "heart attack" (myocardial infarction). The area of the heart muscle not receiving the blood supply will become scar tissue and will lose its ability to pump.

If a cardiologist has found coronary artery blockages during a catheterization, they may recommend coronary artery bypass surgery to protect the heart muscle from these threatening blockages.

Bypass Surgery

Coronary artery bypass surgery is done to provide "detours" around the partially or completely blocked arteries. Coronary artery bypass surgery is performed to provide relief of angina, to improve the pumping ability of the heart muscle, to prevent heart attacks and to reduce the use of heart medications, all of which should improve a patient's quality of life.

With a new open "bypass system" the heart can now receive its much needed blood supply.

For more information about cardiovascular services at Bay Regional Medical Center, [click here](#).