



Heart Health: Heart Bypass Surgery

What Is Coronary Artery Disease?

Coronary artery disease (CAD) is the most common form of heart disease and top cause of death in the United States. This condition occurs when the coronary arteries, the blood vessels that supply oxygen-rich blood to your heart muscle, gradually become narrowed or blocked by plaque deposits. The plaque deposits decrease the space through which blood can flow. Poor blood flow can “starve” the heart muscle and lead to chest pain. A heart attack results when blood flow is completely blocked, usually by a blood clot forming over a plaque that has broken open (ruptured).

Causes of Coronary Artery Disease

Coronary artery disease is caused by the buildup of plaque on the inside of your coronary arteries. Plaque is made up of excess cholesterol, calcium, and other substances in your blood that, over time, build up on the inside walls of your coronary arteries and other arteries. This process is called hardening of the arteries, or atherosclerosis. In many people, plaque may begin to form in childhood and gradually develops over a lifetime. Smoking, high blood pressure, and high cholesterol all contribute to coronary artery disease.

Symptoms of CAD

Since coronary artery disease develops slowly over decades, most people do not know that they have it until the disease is advanced. Typically, the earliest symptoms—chest pain, also called angina, and shortness of breath—occur after age 50.

Unfortunately, sometimes a heart attack is the first sign of coronary artery disease. According to the large, 50-year Framingham Heart Study, over 50% of men and 63% of women who died suddenly of coronary artery disease (mostly from heart attack) had no previous symptoms of this disease.

Treatment Overview

Treatment for coronary artery disease depends upon how far the disease has already progressed.

- * No matter what medical treatment a person receives, lifestyle changes—including quitting smoking, following a heart-healthy diet, and exercising—are critical to managing the disease.
- * If approved by the doctor, take an aspirin each day to reduce the risk of heart attack.
- * If high blood pressure and high cholesterol cannot be controlled with lifestyle changes, medications may be used to help lower these risk factors.

* Frequent chest pain that makes normal everyday activities difficult, may require angioplasty with stent placement to open clogged coronary arteries, or sometimes coronary artery bypass surgery may be necessary.

Once a diagnosis of coronary artery disease is made, lifestyle changes are strongly advised, such as quitting smoking, following a heart-healthy diet, and exercising. With these measures, the progression can be halted and the quality and length of life can be improved.

Surgery for CAD

The goals of surgery for coronary artery disease (CAD) are to:

- * Restore blood flow to the heart muscle.
- * Relieve chest pain (angina).
- * Allow a person to maintain or resume a normal lifestyle. In most cases, surgery will lengthen and improve a person's quality of life.

Although many people with CAD can be treated with medication or angioplasty, coronary artery bypass surgery is sometimes needed. This surgery routes blood flow around narrowed or blocked arteries by creating detours using healthy blood vessels. Coronary artery bypass surgery is usually requires opening a person's chest to gain access to the diseased arteries.

During a coronary artery bypass, the diseased sections of the coronary arteries are bypassed with healthy artery or vein grafts to increase blood flow to the heart muscle tissue. This procedure is also called Coronary Artery Bypass Grafting (CABG).

There are several newer, less invasive techniques for bypass surgery that can be used instead of open-chest surgery in some cases. In some procedures, the heart is slowed with medication but is still beating during the procedure.

For these types of surgery, a heart-lung bypass machine is not needed. (For open-chest surgery, a heart-lung machine is needed to circulate the blood and to add oxygen to it.) Other techniques use keyhole procedures or minimally invasive procedures instead of open-chest surgery. Keyhole procedures use several smaller openings in the chest and may or may not

require a heart-lung machine.

During a traditional open-heart procedure, in the past, the surgeon would remove a vein from elsewhere in the body (often from the leg) and attach it to the blocked artery or arteries in the heart. More recently, one or both mammary arteries, located on the inside of the chest wall—or a branch of one of the radial arteries, located in the arm, have been used to bypass the obstructed coronary vessel. These arteries tend to remain open longer than vein grafts. In either case, blood is redirected through the artery or vein graft, bypassing the blocked or narrowed artery and increasing blood flow to a region of the heart.

What To Expect After Surgery

After surgery, there will be a short stay in the intensive care unit (ICU). In the ICU, the person will likely have:

- * Continuous monitoring of heart activity.
- * A tube to temporarily help with breathing.
- * A stomach tube, to remove stomach secretions until the patient starts eating again.
- * A tube (catheter) to drain the bladder and measure urine output.
- * Tubes connected to veins in the arms (intravenous, or IV, lines) through which fluids, nutrition, and medication can be given.
- * An arterial line to measure blood pressure.
- * Chest tubes, to drain the chest cavity of fluid and blood (which is temporary and normal) after surgery.

A typical stay in the hospital lasts from 3 to 8 days after open-chest bypass surgery. The amount of time varies and will depend on the patient's health before bypass surgery and whether complications develop from surgery.

After discharge, recovery at home takes 4 to 6 weeks. Recovery may include physical therapy, respiratory therapy, occupational therapy, and diet counseling. Exercise and driving may be resumed after about 2 to 3 weeks. People who are able to return to work can usually do so within 1 to 2 months, depending on the type of work they do. Some people find that they experience heightened emotions (such as



Call 9-1-1 Fast

A heart attack is a life-and-death emergency. Every second counts. If you or someone you are with begins to have chest discomfort, especially with one or more of the warning signs of a heart attack, call 9-1-1 immediately. **Don't wait! Time is muscle!**

Heart Attack Warning Signs

Some heart attacks are sudden and intense, where no one doubts what is happening. But most attacks start slowly, with mild pain or discomfort. Symptoms may even come and go. Not all signs occur with every heart attack. Here are signs that can mean a heart attack is happening:

Chest discomfort. Most heart attacks involve uncomfortable pressure, squeezing, fullness or pain in the center of the chest that lasts more than a few minutes, or goes away and comes back.

Discomfort in other areas of the upper body. Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.

Shortness of breath. May occur with or without chest discomfort.

Other signs. May include breaking out in a cold sweat, nausea or light-headedness.

a greater tendency to cry or otherwise show emotion in ways that are unusual compared with before the procedure) for up to a year following surgery.

What To Think About

The choice of treatment depends on the number of blocked arteries and how badly they are blocked, as well as the specifics of a person's condition, overall health, and personal preferences. In general, people

with extensive CAD benefit more from bypass surgery than angioplasty.

* Significant blockage in the left main coronary artery usually requires surgery. Bypass surgery, rather than angioplasty with stenting, is needed in most cases.

* If two to three heart arteries are blocked, the type of treatment will depend on the location and severity of the blockages, how they are affecting heart function, and how severe the symptoms are.

* If only one artery is blocked (other than the left main artery), medication or angioplasty with stenting is most often used.

* The function of the heart valves. If one of the heart valves is defective, bypass surgery combined with heart valve surgery may be required.

Caring for Your Heart

Heart disease changes your life. For many people, living with a heart condition requires changes both big and small, from undergoing major surgery to adding more fruits and vegetables to their diets. Change can be difficult, and sometimes even scary. But with support, resources, and a good supply of determination, most people are able to meet these new challenges. Ask for support from family and friends. Keep in touch with your doctor. Make new, heart healthy lifestyle choices, one healthful habit at a time. Above all, be patient with yourself. You're on a new life path, one that requires plenty of courage, awareness, and persistence. If you try your best to stay on that path, making a daily commitment to take good care of yourself and your heart, you're likely to discover what millions of others have learned—that you can live a full, rewarding life with heart disease.

Memorial Healthy Living Programs

Memorial offers support groups, educational classes, seminars, health fairs and wellness programs for our community, many are free or at minimal cost.

Memorial Smoking Cessation Program

Addiction can be broken, even if you have quit smoking before and started again. Every time you quit, you are closer to permanent success. Memorial Hospital and the Partnership for a Healthy Mississippi sponsors a free six-week program. Classes meet once a week for six weeks with follow-up services. Pre-registration is required. Classes meet in the morning or evening.

Call (228) 867-4022 for information.

Memorial Diabetes Education Program

This program is **available by physician referral** for anyone with diabetes. Participants learn self-management; proper nutrition; potential complications; stress and coping skills; medications and benefits of exercise. Classes meet in the morning or the evening.

Call (228) 867-4131 for information.

Memorial Online

For a listing of the programming for the month, transcripts of each show, streaming video of health programs on demand, and additional information about each topic, visit us online:

www.gulfportmemorial.com

Memorial RiteWeighsm

A clinical weight loss program designed to promote healthy eating, exercise and behavior modification. The program is lead by a Memorial Registered Dietitian. Memorial RiteWeighsm is ideal for individuals who have hypertension, diabetes or elevated cholesterol levels. Living a healthier lifestyle plays an important role in dramatically improving your health and health risks.

Call (228) 867-4033 for information.

Memorial Senior Services

Monthly programs and activities focusing on the health care needs and interests of seniors in our community. Join the group nearest you.

Call (228) 865-3603 for information.

Memorial Fitness Center

Our Fitness Center is staffed by a team of professionals who provide participants with the exercise and health education necessary to achieve a healthy lifestyle. Come visit our facility and see the Cybex weight machines, Nu Step, Trotter treadmills, variety of dumbbells, and much more. Monthly fees are paid directly to the Fitness Center with **no contract to sign!**

Call (228) 867-4033 for information.

The information provided is not meant to diagnose or treat a possible health problem. Consult your health care provider if you have any questions or concerns about heart disease.