

Cardiovascular Disease

by Richard Lindsey, MD
 Cardiologist, Colorado Springs Health Partners, PC

You've heard it all--eat right, exercise (but not too little), drink red wine (but not too much), check your blood pressure, watch your cholesterol, get help quickly...prevent heart disease. Because heart disease is one of the top killers of men AND women in our society, it gets a lot of attention, rightfully so.

What's the nitty gritty in a nutshell today? The truth is that it is probably a little different for each of us, which is why there is so much information out there. The basics, however, are pretty simple:

To help prevent heart attacks:

- Don't smoke. Plain and simple.
- Get your blood pressure checked regularly.
- Eat a varied diet, with more fruits and vegetables, more fish and less fat.
- Build physical activity slowly, to achieve 30-60 minutes per day on most days.
- Maintain a healthy weight.
- Have regular medical checkups.
- Take prescribed medication as recommended.
- Check with your doctor before taking any herbal supplements or over the counter medications as they can react adversely with some of the medications that you are prescribed



Managing cholesterol, blood pressure, and weight can significantly reduce risk of cardiovascular disease.

Understanding heart disease

What is heart disease? There are over 15 separate diseases and conditions that impact your heart. The Mayo Clinic defines cardiovascular disease as a collection of diseases and conditions that impact your heart and blood vessels, or the cardiovascular system. The two most common forms of heart disease are high blood pressure and coronary artery disease. (These are not highly preventable but can be modified to decrease incidents of stroke and heart attack) We will focus on these conditions.

High Blood Pressure. Your blood pressure is a measurement of how hard your heart has to work to pump blood through your body. A serious disease that is easily controlled in most cases, high blood pressure can lead to atherosclerosis, stroke, congestive heart failure, heart attack, coronary artery disease and aneurysms.

Coronary Artery Disease. Oxygen rich blood is carried through the coronary arteries to fuel the heart. In some people these arteries can become clogged with fat (cholesterol) decreasing the amount of oxygen delivered to the heart. In the case of a heart attack, no blood can get to the heart muscle at all. Coronary Artery Disease is the leading cause of heart attacks and can also cause disorders of the heart rhythm and eventually congestive heart failure.

To treat high blood pressure and coronary artery disease:

Cardiologists have access to a wide variety of medications, procedures and surgeries for the treatment of these two most common forms of heart disease.

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High Blood Pressure

- Blood pressure goals vary for patients depending upon their health condition. Readings below 140/90 are healthy, lower for those with certain conditions such as diabetes or chronic kidney disease. Medications for high blood pressure may be used alone or in combination to best meet a patient's goals:
 - Diuretics-reduce blood volume by acting on kidneys to eliminate sodium and water
 - Beta blockers-help the heart to beat more slowly
 - Angiotensin-converting enzyme (ACE) inhibitors-help relax blood vessels to help prevent them from narrowing by blocking a chemical formation
 - Angiotensin II receptor blockers-also help relax blood vessels through a different process by blocking the action of the chemical that causes narrowing
 - The above medications may be used in combination with Alpha blockers, central-acting agents and direct vasodilators when a patient's goals are not being met.



Blood pressure goals vary depending on age and other health factors.

Coronary Artery Disease

- Depending upon the form and severity of coronary artery disease, the cardiologist may use various medications and procedures to treat the patient. High blood pressure medications, as listed above, are often used. Other medications used include:
 - Cholesterol lowering drugs
 - Aspirin-to help reduce blood clotting
 - Beta blockers-slow your heart rate and decrease blood pressure which reduces the heart's need for oxygen
 - Nitroglycerin-control chest pain by opening arteries and reducing the heart's need for oxygen
 - Calcium channel blockers-cause muscles around coronary arteries to relax to increase blood flow to the heart

Procedures available to treat coronary artery disease:

- PCI (percutaneous coronary intervention)-a small cut is made in the skin at the groin to thread a catheter into the coronary arteries. Either a small metal tube (stent) or a balloon is inserted into the artery and expanded to clear the blockage.
- Coronary bypass surgery-a new route is created for blood flow around the area that is blocked by using a blood vessel, usually from the leg or chest.
- Atherectomy-a catheter with a diamond-shaped device is inserted into the artery and rotates rapidly to shave buildup off the artery walls.

Your doctor will decide based on your particular circumstance, which of these procedures are best to treat your disease.

The Cardiovascular Unit located in Penrose Hospital's new E Tower is a unit specifically designed for heart patients. The length of stay will vary based on the condition of the patient but can be anywhere from 24-48 hours for PCI to 4-5 days for bypass surgery.

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Not only does the CVU offer 36 state-of-the-art private rooms, each patient will receive total care at the bedside. Outside of every two rooms is a bay. Each bay houses a computer, phone, the patient's old chart, present chart, and the patient's plan of care. This provides easy access of patient information for the physician, nursing staff and ancillary departments.

The new unit also facilitates procedures such as stress tests, stress echocardiograms, and cardioversions.

Once patients are released, they are given very specific instructions about how to take care of themselves after the procedure and how to slowly return to their regular routine. They will be asked to follow up with their physician or cardiologist after they return home.

Cardiac Rehabilitation is available to assist patients to resume their normal activities in a safe environment. After hospitalization for either coronary artery disease or open heart surgery patients will be referred to the Cardiac Rehabilitation Program. In Cardiac Rehabilitation the patient's blood pressure, heart rhythm and functional ability are carefully monitored by highly trained nursing personnel. Activity is prescribed depending on each patient's personal history and physical condition. In addition, education on the causes, effects and prevention of the disease process are taught.

This information covers the basics for the two most common and most preventable types of heart disease; coronary artery disease and high blood pressure. For more information about these and other forms of heart disease, contact your physician or cardiologist. Additional resources can be found through the American College of Cardiology, American Heart Association or the Mayo Clinic.



Richard Lindsey, MD
Cardiologist
209 S. Nevada Ave.
475-7700



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