

# Cardiology



**C**ardiology (from Greek καρδίᾱ kardiā, "heart" and -λογία -logia, "study") is a branch of medicine dealing with disorders of the heartbe it human or animal. The field includes medical diagnosis and treatment of congenital heart defects, coronary artery disease, heart failure, valvular heart disease and electrophysiology. Physicians who specialize in this field of medicine are called cardiologists, a specialty of internal medicine. Pediatric cardiologists are

pediatricians who specialize in cardiology. Physicians who specialize in cardiac surgery are called cardiothoracic surgeons or cardiac surgeons, a specialty of general surgery.

Cardiology is the branch of medicine that deals with disorders of the heart and blood vessels. Below are some of the cardiovascular conditions that are diagnosed and treated by the cardiologists at Pinehurst Medical Clinic:

- **Aneurysm** : A balloon-like bulge in an artery. If a bulge stretches the artery too far, the vessel can burst. Aneurysms can form in arteries of all sizes, but the most serious are those that affect the large blood vessel that carries blood from the heart to other parts of the body (the aorta), the heart's pumping chamber (ventricle), and arteries that supply blood to the brain.
- **Angina**: A type of chest discomfort caused by inadequate blood flow to the heart. It may be experienced as tightness, heavy pressure, squeezing pain, or crushing chest pain. The most common cause of angina is coronary artery disease, narrowing or blockage of the arteries that supply blood to the heart.
- **Arrhythmia** : Any disorder of heart rate or rhythm. Examples of arrhythmias are tachycardia (faster-than-normal heartbeat) and bradycardia (slower-than-normal heartbeat).
- **Atherosclerosis**: The buildup of fatty deposits (plaques) in the arteries. The narrowing and stiffening of arteries due to plaque buildup can interfere with blood flow, causing pain in oxygen-starved organs. If a plaque in a coronary artery ruptures, it can cause heart attack or stroke.
- **Atrial fibrillation**: A heart rhythm disorder in which the upper chambers of the heart (atria) contract rapidly and in a disorganized manner. A trial fibrillation increases the risk of blood clots that can block the flow of blood to the brain, lungs, or other organs.
- **Bradycardia**: An abnormally slow heart rate. Bradycardia may have no symptoms or may cause heart palpitations, shortness of breath, fatigue, and fainting.
- **Cardiomyopathy**: A disease of the heart muscle in which the muscle tone is damaged and the heart's ability to pump blood is impaired. The most common type is dilated cardio myopathy, in which one or more of the heart's chambers is enlarged and its pumping becomes less forceful. Other

types include hypertrophic cardio myopathy, in which the walls of the heart muscle thicken, and restrictive cardio myopathy, in which the heart muscle becomes more rigid.

- Chest pain:** Discomfort or pain along the front of the body between the neck and upper abdomen. Chest pain may be a symptom of a heart attack or coronary artery disease, but it may also occur due to asthma, pneumonia, muscle strain, anxiety, or digestive problems (e.g., heartburn, ulcers, or gallstones).

- Claudication:** Claudication is pain in the calf or thigh muscle that occurs with exercise and is relieved by rest. The pain is caused by poor blood flow due to narrowing or blockages affecting the arteries that carry blood to the legs. Claudication is the most common symptom in people who have peripheral artery disease.

- Congestive heart failure:** A condition in which the heart is weak and has lost some ability to pump blood. Symptoms include shortness of breath, persistent coughing or wheezing, fatigue, and swelling in the feet, ankles, legs, or abdomen.

- Coronary artery disease (CAD):** Narrowing and hardening of the arteries that supply blood to the heart due to the build up of plaque in the artery wall. CAD is the most common type of heart disease. The reduced blood flow to the heart can cause angina (chest pain) and heart attack and can contribute to heart failure and arrhythmias.

- Heart attack :** Sudden blockage of the supply of blood and oxygen to a portion of the heart muscle. Treatments for heart attack work to open the blocked artery and restore blood flow as quickly as possible, in order to limit damage to the heart muscle.

- Heart murmur:** A rasping, whooshing, or blowing sound produced by turbulent blood flow through the heart valves or near the heart. Murmurs are most often caused by defective heart valves

- High cholesterol:** A total cholesterol level above 240 mg/dL is considered high cholesterol. Total cholesterol between 200 and 239 is considered borderline high. High cholesterol increases your risk of heart disease. Diet and medication can bring down cholesterol levels and reduce heart disease risk.

- Hypertension** (high blood pressure.: Normal blood pressure is below 120/80 mm Hg. Blood pressure of 120 to 139 systolic (the top number in a reading) or 80 to 89 diastolic (the bottom number) is considered prehypertension. Blood pressure above 139 mm Hg systolic or above 89 mm Hg diastolic is considered high blood pressure. High blood pressure increases the risk of heart attack, stroke, and kidney disease.

- Peripheral artery disease (PAD):** Peripheral artery disease is atherosclerosis (narrowing or blockage of arteries due to the buildup of fatty deposits) affecting the arteries that supply blood to the legs and feet.

- Congenital heart disease:** Abnormalities in the heart's structure and function that are caused by disordered or abnormal heart development before birth. While some abnormalities never cause any problems, many of these defects need to be followed carefully and require treatment (medication or

surgery). The most common congenital heart defect is a ventricular septal defect, a hole in the wall that separates the left and right ventricles of the heart.

•**Syncope (fainting).** A temporary loss of consciousness due to a drop in blood flow to the brain. The episode is brief and is followed by a rapid and complete recovery. Syncope may be caused by a sudden drop in blood pressure, extreme emotional states, severe pain, certain medications, abnormal heart rhythms, or other reasons.

## Cardiovascular Diseases

It includes a number of conditions affecting the structures or function of the heart. They can include:

- Coronary artery disease (narrowing of the arteries)
- Heart attack
- Abnormal heart rhythms or arrhythmias
- Heart failure
- Heart valve disease
- Congenital heart disease
- Heart muscle disease (cardiomyopathy)
- Pericardial disease
- Aorta disease and Marfan syndrome
- Vascular disease (blood vessel disease)

Cardiovascular disease is the leading cause of death for both men and women in the U.S. It is important to learn about your heart to help prevent heart disease. In addition, if you have cardiovascular disease, you can live a healthier, more active life by learning about your disease and treatments and by becoming an active participant in your care.

## References:

<http://en.wikipedia.org/wiki/Cardiology>

<http://www.pinehurstmedical.com/cardiology-info/cardiology-diseases-disorders-a-syndromes>

<http://www.webmd.com/heart-disease/guide/diseases-cardiovascular#1>