

Cardiovascular Disease

WHAT IS CARDIOVASCULAR DISEASE?

- Cardiovascular disease, commonly referred to as Heart Disease
- Describes a range of conditions that affect the heart, mostly related to a process called **atherosclerosis**
- **Artherosclerosis** is a condition that develops when plaque builds up in the walls of the arteries
 - > The buildup narrows the arteries and makes it hard for blood to flow which can cause blood clots stopping blood flow all together
 - > This condition can cause a heart attack or stroke

HEART ATTACK

- Occurs when a blood clot blocks blood from flowing to a part of the heart
- If blood flow is cut completely, that part of the heart muscle begins to die
- Most people do survive their first heart attack but will need to make significant changes to daily lifestyle

STROKE

- **Ischemic stroke** (most common) happens when a blood vessel that leads to the brain is blocked
 - Brain cells die when the blood supply to part of the brain is cut
 - Results in the inability to carry out daily activities such as walking or talking
- **Hemorrhagic stroke** happens when a blood vessel bursts within the brain
 - Uncontrolled hypertension is the most common cause of a hemorrhagic stroke



OTHER TYPES OF CARDIOVASCULAR DISEASES

- **Heart failure** (commonly referred to congestive heart failure) where the heart is not pumping blood as well as it should
- **Arrhythmia** occurs when there is an abnormal rhythm to the heart. The heart can either beat too slow, too fast, or irregularly
- **Heart valve problems**
 - **Stenosis** - occurs when the heart valves do not open enough to allow adequate blood flow
 - **Regurgitation** - occurs when heart valves allow blood to leak because they do not close properly
 - **Mitral valve prolapse** - occurs when the valve bulges or prolapses back into the upper chamber of the heart

PREVENTION

• Fact

There are 5 major risk factors to cardiovascular disease:

- High blood pressure, abnormal values for blood lipids, smoking, obesity, and lack of regular physical activity

• Physical Activity

Regular exercise has a favorable effect on many of the risk factors to cardiovascular disease

• Benefits

- Exercise promotes a reduction in weight
- Helps reduce blood pressure levels
- Reduces bad cholesterol levels and increases good cholesterol levels
- Brings an increase in insulin sensitivity

Continued, moderate exercise is key to decreasing the risk of cardiovascular disease

Reference:

Mayo Clinic. (2016). Diseases and conditions. Heart Disease. Retrieved from: <http://www.mayoclinic.org/diseases-conditions/heart-disease/basics/definition/con-20034056>

Myers, J. (2003). Exercise and cardiovascular health. *Circulation*. DOI: 10.1161/01.CIR.0000048890.59383.8D

American Heart Association. (2014). What is cardiovascular disease. Retrieved from: http://www.heart.org/HEARTORG/Caregiver/Resources/WhatIsCardiovascularDisease/What-is-Cardiovascular-Disease_UCM_301852_Article.jsp#.Vwv4HPkrLIU

Treatment

The most common form of treatment for cardiovascular disease is medication. In some cases, patients may need to undergo surgery or live with a pacemaker.



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