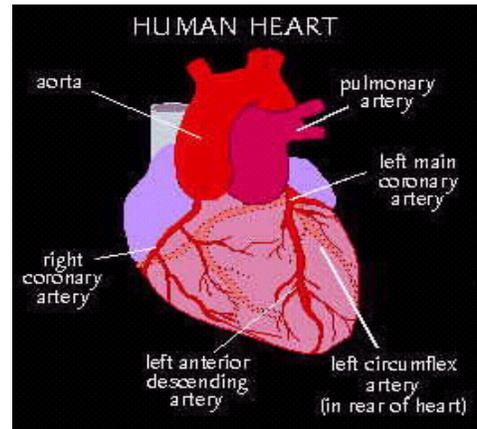


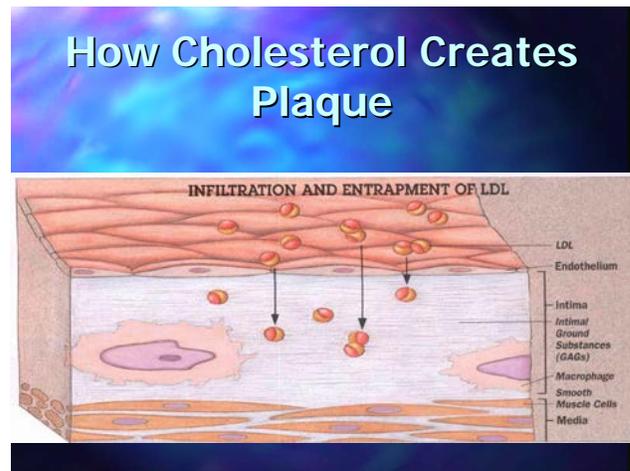
CONTROLLING YOUR RISK FACTORS

Heart disease is the leading cause of death in the United States, and half of all patients die before reaching the hospital. Often, the first warning sign is a massive heart attack. Your individual risk for heart attack and stroke can be greatly reduced by controlling the risk factors for these diseases.

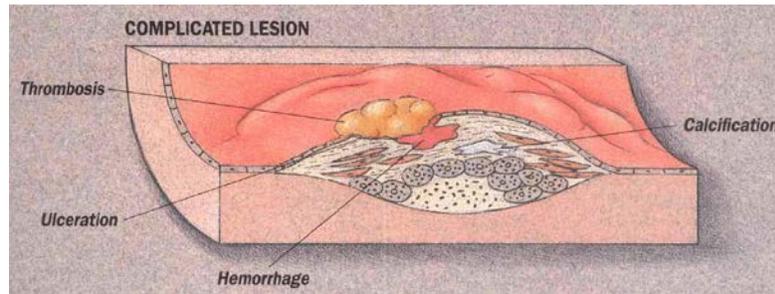


What is atherosclerosis or coronary artery disease?

Atherosclerosis is a process in which plaque builds up in the wall of an artery. Plaque is made up of deposits of fats, cholesterol and other substances. Plaque formations can grow large enough to significantly reduce the blood's flow through an artery. This plaque build up in the coronary arteries is Coronary Artery Disease (CAD).



Low density lipoprotein (LDL) or "lousy" cholesterol travels in the blood and becomes trapped in the lining of the arterial wall. The body sends white blood cells to this area to try and remove the trapped LDL particles. Once trapped, the LDL cannot be removed. Inflammation occurs around this area, leading to the formation of plaque. As this plaque and inflammation worsen, calcium deposits form within the plaque. This is what is often referred to as "hardening of the arteries."



Wherever plaque is found, that inside lining of the artery is weakened, making it vulnerable to rupture or tear. This tearing causes the body to form a clot to stop the bleeding. The opening of the artery becomes blocked, causing a heart attack. No blood can get through that blocked artery. Anything below the blockage begins to die from lack of oxygenated blood. If this blockage occurs high in the heart it can be fatal. The entire heart may stop working as it begins to beat abnormally.

Much of this process of coronary artery disease can be prevented by controlling risk factors. If discovered early, hardening of the arteries can be halted. There are tests available to detect plaque in the very early stages. There are tests available to detect plaque in the very early stages such as the CT Calcium Heart Scan.

What are the symptoms of a heart attack or stroke?

Heart Attack	Stroke
<ul style="list-style-type: none"> • Pressure, squeezing pain in the chest • Pain that spreads to the neck, arms, or jaw • Pain accompanied by sweating, nausea, or shortness of breath <p>Note: Symptoms may or may not be present</p>	<ul style="list-style-type: none"> • Facial drooping • Slurred speech • Trouble speaking • Sudden unexplained headache • Weakness or numbness on one side • Visual changes • Dizziness • Confusion

Seek Medical Attention Immediately! Call 911!

Become CPR Certified – call 630-527-6363 to register or www.eehealth.org

What are the risk factors that I cannot change?

- ◆ **Personal History:** If you have ever had a heart attack, stroke, angioplasty, stent placement, or heart bypass procedure, there is a much greater risk for having another one compared to the person who has never had an event.
- ◆ **Age & Gender:** If you are a men over 45 or women over 55, there is a greater risk for having a heart attack or stroke. The plaque build-up process tends to worsen as we age.
- ◆ **Family History:** You are at greater risk if you had a father or brother who had a heart attack or stroke before the age of 55 or a mother or sister who had a heart attack or stroke before the age of 65.

What are the risk factors that I can change?

- ◆ **Smoking:** Smoking is the leading preventable cause of disease and death. It increases the risk of heart disease and damages the arteries by increasing blood pressure, heart rate, and tendency for the blood to clot. Smoking decreases the high density lipoprotein (HDL). Call our **Nurse Heartline @ (630) 527-2825** or the **American Lung Association @ 1-800-LUNGUSA** for strategies to help you quit smoking.
- ◆ **High Blood Pressure:** High blood pressure damages the arteries by causing a “sandpaper” effect that makes it easier for the LDL cholesterol to get caught in those rougher areas as it travels through the blood. Plaque increases much more easily. High blood pressure is a leading risk factor for stroke! Increasing exercise, maintaining a healthy weight, eating a diet rich in fruits and vegetables, and reducing your salt intake can help to reduce your blood pressure.
- ◆ **Abnormal Cholesterol:** Your blood consists of both HDL (healthy or good) and LDL (lousy or bad) cholesterol.

HDL cholesterol helps decrease the LDL cholesterol. Exercise helps increase your HDL levels.

LDL cholesterol gets trapped in the walls of the arteries leading to plaque build-up. You can reduce your LDL levels by eating a low-fat diet. Some families have inherited a liver which just makes too much LDL cholesterol. Medications may be needed to lower LDL to safe levels. The more you lower your LDL through healthy eating, the less medicine your doctor may need to prescribe to reduce your risk for heart disease and stroke.
- ◆ **Lack of Exercise:** Exercise strengthens and improves many areas of the body. Some of the cardiovascular benefits include raising HDL cholesterol levels, lowering blood pressure, helping to control weight, reducing stress, and preventing diabetes. ***Always check with your doctor before beginning an exercise program.*** The best benefits are provided from regular aerobic exercise 3-5 times per week for at least 30 minutes. Exercise should always begin with a 5 minute warm-up period and should be followed by a 5 minute cool-down period. Resistance training (light weights) should be part of a good routine at least 2-3 times per week. Try to do something active every day.
- ◆ **Diabetes:** Diabetes is a progressive disease in which your body does not make enough insulin or does not respond properly to insulin. High blood sugar levels are dangerous and damaging to the arteries. The extra sugar in the blood slows down the flow of blood and irritates the walls of the arteries. As LDL travels more slowly in the blood it gets trapped more easily in the walls of the arteries. Maintaining a healthy weight, exercising, and limiting simple carbohydrates help to prevent high blood sugar.
- ◆ **Pre-Diabetes** or insulin resistance occurs when a person’s blood glucose levels are higher than normal or when the body cannot use insulin efficiently. It is important to monitor blood sugars.

What are the other lifestyles which increase your risk for heart attack or stroke?

- ◆ **Stress:** If you think that you are experiencing too much stress, you probably are. Stress tends to make everything worse! When you are anxious your body secretes too much adrenaline which increases your heart rate and blood pressure. Over time the increased blood pressure causes great damage to the heart and arteries leading to an increased risk for heart attack and stroke. Exercise, deep breathing techniques or talking with friends helps to reduce stress and blood pressure.
- ◆ **Obesity:** Too much extra weight increases your blood pressure and blood sugar which increase the plaque build-up. Extra weight is also hard on the joints, lungs and many parts of the body. It is almost as dangerous to the body as smoking. Aerobic exercise along with strength training, healthier food choices and stress reduction will help control your weight.
- ◆ **Unhealthy Eating (Saturated Fats):** A diet rich in fiber and low in saturated fats, trans fatty acids, and cholesterol has been shown to lower LDL cholesterol levels and thus reduce your risk for heart attack and stroke.

Tips for heart healthy eating:

- ◆ Eat foods in natural form
- ◆ Increase your fruits and vegetables,
- ◆ Eat more beans, whole grain breads and cereals
- ◆ Eat low-fat dairy products
- ◆ Eat less processed meats and packaged food
- ◆ Reduce foods high in salt
- ◆ Avoid junk or fast foods
- ◆ Watch your proportions, especially when eating out
- ◆ Drink alcohol in moderation

Do you know your numbers?

Total Cholesterol (fasting)		LDL (“Lousy”) Cholesterol		HDL (“Healthy”) Cholesterol		Triglycerides		
Below 200	Desirable	Below 100	Optimal	Above 60	High*	Below 150	Normal	
200-239	Borderline High	100-129	Good	Below 40	Low	150-199	Borderline high	
Over 240	High	130-159	Borderline High	Higher levels are best		200-499	High	
		160-189	High	* You may subtract one risk factor when your HDL is above 60		Above 500		Very High
		Above 190	Very High					
		If Diabetic or CAD (70-100)						
Blood Pressure			Waist Circumference			Blood Sugar (fasting)		
<u>Below</u> 120/80	Normal		Women should be less than 35”			70 - 100	Normal	
120-129/80	Elevated		Men should be less than 40”			101 – 125	Pre-Diabetes	
130-139/80-89	Stage 1 Hypertension					125 or greater	Diabetes	
140/90	Stage 2 Hypertension							

Remember: *“An ounce of prevention is worth a pound of cure” (Old English proverb).*