

HEALTHY HEART INFORMATION

- **What Is Cardiovascular Disease?**
 - Cardiovascular disease (CVD) includes heart disease, stroke and diseases of the blood vessels.
 - 37.3 % of all U.S. deaths (1 of every 2.7) in 2003 were due to CVD

- **Risk Factors You Can't Change, Treat or Modify**
 - Increasing Age
 - Heredity
 - Race
 - Previous heart attack or stroke
 - Gender (male sex)

- **Risk Factors You Can Change, Treat or Modify**
 - High blood pressure
 - High blood cholesterol
 - Tobacco smoke
 - Overweight and obesity
 - Physical inactivity/sedentary lifestyle
 - Diabetes
 - Drinking too much alcohol
 - Illegal drug use

- **What You Can Do To Prevent CVD**
 - Know the risk factors
 - Identify your risk factors
 - Take action to lower your risk factors

- **Make Healthy Lifestyle Changes**
 - Control high blood pressure
 - Don't smoke. If you smoke, quit. Avoid second hand smoke.
 - Maintain healthy cholesterol levels
 - Be physically active
 - Control or delay the onset of diabetes
 - Reduce excess weight or maintain a healthy weight
 - Eat a healthful diet
 - Drink alcohol in moderation or not at all
 - Learn to relax and deal with your stress
 - Get friends and family to join you in healthy living

- **What Is Cholesterol?**
 - Cholesterol is a fat like substance made primarily in the liver.
 - The body needs cholesterol for important biological functions.
 - Typically, the body makes all the cholesterol it needs.

- **Why Is Cholesterol Control Important?**
 - Too much cholesterol in the blood increases the risk that fatty deposits (plaque) will form in arteries.
 - Plaque is the buildup of cholesterol and other substances in artery walls.
 - Plaque can narrow an artery and reduce the flow of blood in arteries that feed the heart or brain.
 - Plaque that ruptures cause blood clots to form.
 - If the blood clot blocks an artery that feeds the heart, it causes a heart attack.
 - If it blocks an artery that feeds the brain, it causes a stroke.
 - The only way to know if your blood cholesterol is at a safe level is to have a simple blood test.

- **“Good” and “Bad” Cholesterol**
 - HDL cholesterol is the “good” kind. High HDL **lowers** your heart disease and stroke risk
 - LDL cholesterol is the “bad” kind. LDL cholesterol is deposited in artery walls. High LDL **raises** your heart disease and stroke risk

- **Heart Attack/Acute Coronary Syndromes**
 - Heart attack or acute symptoms that warn one of an impending heart attack are called acute coronary symptoms (ACS) – become more frequent with advancing age
 - When a heart attack or ACS is diagnosed, drug therapies and/or immediate or early cardiac catheterization – placing a catheter into the arteries that supply the heart muscle, injecting dye to visualize sites where the arteries are narrowed or occluded, and opening an occluded artery by balloon technique (angioplasty) have been shown to be as useful in the elderly both men and women as they are in younger people.

- **Heart Attack Warning Signs**
 - Chest discomfort: Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes, or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness or pain.
 - 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: These may include breaking out in a cold sweat, nausea or lightheadedness.
 - As with men, women's most common heart attack symptom is chest pain or discomfort. But women are somewhat more likely than men to experience some of the other common symptoms, particularly shortness of breath, nausea/vomiting, and back or jaw pain.

- **Stroke Warning Signs**
 - Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
 - Sudden confusion, trouble speaking or understanding
 - Sudden trouble seeing in one or both eyes
 - Sudden trouble walking, dizziness, loss of balance or coordination
 - Sudden severe headache with no known cause

- **Heart failure**
 - Fatigue, shortness of breath and swollen legs are the most common symptoms when the heart fails to perform its normal pumping function.
 - The incidence of heart failure increases with age and the heart becomes more vulnerable to various injuries or simply begins to deteriorate as a pump as part of the aging process.
 - The underlying causes of heart failure include:
 - Impaired pumping function of the heart (contractility) caused by damage to the heart from decreased blood supply or a prior heart attack
 - An increase in pressure load or impaired relaxation (the ability of the heart to relax and fill passively with blood)
 - Hypertensive heart disease/High blood pressure
 - Diabetes

- **Arrhythmias: Irregular, too slow or too fast heartbeats**
 - Alterations in the heartbeat are not necessarily perceived in the chest, but frequently people experience them over the neck arteries or may become aware because of sudden sweating, pallor, weakness, occasional dizziness and/or fainting
 - Most common arrhythmia is atrial fibrillation
 - The more serious one is ventricular fibrillation
 - Twenty four hour ambulatory ECG recordings (Holter monitoring) are invaluable in detecting hidden arrhythmias even in asymptomatic people.
 - Slow heart beat, most commonly caused by a block in the electrical conduction system of the heart is effectively treated by the implantation of a pacemaker
 - A more sophisticated implantable heart device, the defibrillator, is also frequently used in the elderly.

- **Angina Pectoris**
 - Pain in the left chest or more commonly “chest tightness”, especially if elicited by physical or emotional stress
 - Also angina pectoris without pain, silent ischemia, is more frequent in older age
 - The two most commonly used diagnostic tools: the resting electrocardiogram (ECG) and exercise testing have limitations in the elderly.
 - Other testing such as nuclear and echo testing with pharmacological agents are more useful in the elderly
 - The ultimate diagnostic test for angina pectoris is coronary arteriography.
 - Even in old age, revascularization therapies for angina pectoris such as angioplasty or bypass surgery seem to be superior treatment with medications with regards to improving quality of life and reducing angina severity without increasing risk.

➤ **Physical Activity Helps You Help Yourself**

- A sedentary lifestyle is one of the 5 major risk factors for cardiovascular disease as outlined by the AHA (as discussed earlier): physical inactivity/sedentary lifestyle, high blood pressure, high cholesterol, smoking and obesity. Reducing these risk factors decreases the chance of having a heart attack or experiencing another cardiac event such as a stroke, and reduces the possibility of needing a coronary revascularization procedure such as bypass surgery or coronary angioplasty.
- Physically inactive women and men are more likely to develop heart disease. Studies show a higher rate of cardiovascular events and a higher death rate in those individuals with low levels of physical fitness
- Regular, moderate-to-vigorous physical activity improves your cardiovascular health and helps reduce your risk of heart disease.
- Exercise helps you
 - lower blood pressure
 - control blood cholesterol levels: lower LDL (bad) cholesterol levels and raise HDL (good) cholesterol levels
 - reach and maintain a healthy weight
 - manage diabetes
- Exercise provides protective effects of physical activity for a number of non-cardiovascular chronic diseases such as non-insulin dependent diabetes, hypertension, and osteoporosis and colon cancer.
- Although the effect of an exercise program on any single risk factor may generally be small, the effect of continued, moderate exercise on overall cardiovascular risk, when combined with other lifestyle modifications such as proper nutrition, smoking cessation and medication use, can be dramatic.
- For heart attack patients who participated in an exercise program, the death rate was reduced by 20 - 25%
- Only approximately 30% of Americans are active enough for good heart health. Less than one-third of Americans meets the minimal recommendations for activity as outlined by the CDC, ACSM and AHA expert panels.

➤ **Recommendation for Physical Activity from the CDC/ACSM Consensus Statement and Surgeon General's Report:**

- Every American adult should participate in 30 minutes or more of accumulated moderate intensity activity on most, and preferable all, days of the week.

- Moderate activities: activities comparable to walking briskly at about 3 to 4 miles for hour, may include wide variety of occupational or recreational activities including yard work, household tasks, cycling, swimming, etc.
- Note that the specific phrase “...30 minutes of accumulated activity...” is used. It has been shown that repeated intermittent or shorter bouts of activity (such as 10 minutes) that include occupational and recreational activity or the tasks of daily living have similar cardiovascular and other health benefits if performed at the moderate intensity level with an accumulated duration of at least 30 minutes per day.
- Researchers estimate that as much as 30% to 40% reduction in cardiovascular events is possible if most Americans were simply to meet the government recommendations for activity.
- The greatest gains in terms of mortality are achieved when an individual goes from being sedentary to becoming moderately active.
- You should consult your physician before starting any type of exercise program.
- Physical and Occupational Therapists are experts in designing an appropriate exercise program for you.

FOR MORE INFORMATION:

- The American Heart Association:
Call 1-800-AHA-USA1 (1-800-242-8721)
Call 1-888-MY-HEART (1-888-694-3278) for women and heart disease info
Visit www.americanheart.org
Contact your local American Heart Association office.
- The American Stroke Association:
Call 1-888-4-STROKE (1-888-478-7653)
Visit www.strokeassociation.org
Contact your local American Stroke Association office.

References:

American Heart Association: Circulation cardiology patient information page: Aging and Diseases of the Heart
American Heart Association: Circulation cardiology patient information page: Exercise and Cardiovascular Health