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Women and Heart Disease

"Heart disease isn't just a man's disease."



Heart attack, stroke and other cardiovascular diseases are devastating to women. These are not just diseases affecting men. Coronary heart disease, which causes heart attack, is actually the leading cause of death for American women. This is surprising to most, since many women feel that cancer is more of a threat to them, particularly breast cancer. However, nearly <u>twice</u> as many women in the United States die of heart disease and stroke than from all forms of cancer, including breast cancer.

It is now known that heart attack symptoms in women can be different than those experienced by men. Many women experiencing a heart attack may not even be aware. Women tend to feel a burning sensation in their upper abdomen and may experience lightheadedness, an upset stomach, and sweating. Many women may ignore these symptoms that signify a heart attack because the typical pain felt in the left half of the chest during heart attack often does not occur in them.

Menopause: How it Relates?

Compared to men, many women before the age of menopause seem to be partly protected from coronary heart disease, heart attack and stroke. Studies have indicated that after menopause, women experience an increased risk for heart disease and stroke. Coronary heart disease rates in these women are 2-3 times higher than in women of the same age <u>before</u> menopause. This phenomenon has been linked to decreasing levels of the female hormone estrogen during menopause. This process typically begins around age 50 in women. Estrogen is associated with higher levels of highdensity lipoprotein (HDL or "good cholesterol") and lower levels of lowdensity lipoprotein (LDL or "bad cholesterol").

In the Heart and Estrogen/Progestin Replacement Study (HERS),

researchers observed how hormone replacement therapy may affect women who already have heart disease. What they found was that postmenopausal women with heart disease who were given estrogen and progestin actually had more heart attacks and heart disease deaths during the first year of the study than women not on the hormone replacement therapy did.





In 2002, scientists at the National Heart, Lung, and Blood Institute announced that they had stopped a large study of postmenopausal hormone therapy (PHT) using a combination of estrogen plus progestin. In this trial, referred to as the Women's Health Initiative (WHI), it was shown that estrogen plus progestin significantly increased the risk of invasive breast cancer and blood clots in the legs and lungs and did not protect women from heart disease and stroke. In fact, it appeared that women taking this drug had a higher risk of heart attack and stroke. After these trials, along with others, the American Heart Association (AHA) recommended against the use of combined hormone replacement therapy for the prevention of heart disease and stroke in postmenopausal women.









Non-modifiable Risk Factors

<u>Increasing age</u>: As women grow older, their risk of heart disease and stroke begins to rise and continues rising with age.

Risk Factors for Heart Disease and Stroke for Women

Sex (gender):

Men have a greater risk of heart attack than women, and have attacks earlier in life. However, each year about 40,000 more women than men have strokes with more than 60% of total stroke deaths occurring in women.

<u>Heredity (family history)</u>:

Both genders are more likely to develop heart disease or stroke if a close blood relative has had them. Race is also a factor. Black women have a greater risk of heart disease and stroke than white women. Compared with whites, African-American men and women are more likely to die of stroke.

Previous heart attack or stroke or TIA

Women who have already had a heart attack are at a much higher risk of having a heart attack when compared to women who have never had one. 14 percent of individuals who survive a first stroke or heart attack will have another within a year. A transient ischemic attack (TIA or "mini-stroke") is also a risk factor and predictor of stroke.

Modifiable Risk Factors

• Tobacco smoke

Smoking is the single most preventable cause of death in the United States and is a major cause of cardiovascular disease in women. Constant exposure to others' cigarette smoke (second-hand smoke) also increases your risk, even if you do not smoke. In women, the combination of smoking and using birth control pills <u>increases the risk</u> for heart attack and stroke.

<u>High blood cholesterol</u>

High blood cholesterol is a major risk factor for heart disease and increases the risk for stroke as well. High levels of LDL cholesterol (the "bad" cholesterol) raise the risk of heart disease and heart attack; whereas, high levels of HDL cholesterol (the "good" cholesterol) <u>lower</u> the risk of heart disease.

High blood pressure

High blood pressure is a major risk factor for heart attack and the <u>most important risk factor</u> for stroke. The following contribute to an increased risk of developing high blood pressure in women:

- Obesity
- Family history of high blood pressure
- Pregnancy
- Usage of certain types of birth control pills
- Menopause



<u>High triglyceride levels</u>

A high triglyceride level often goes with higher levels of total cholesterol and LDL, and lower levels of HDL with an increased risk of diabetes. However, scientists don't agree that this is a risk factor for heart disease by itself. It has been suggested that high triglycerides may increase the risk for heart disease more so in women than in men.

<u>Excessive alcohol intake</u>

Excessive drinking and binge drinking can contribute to obesity, high triglycerides, cancer and other diseases, raise blood pressure, cause heart failure and lead to stroke. Although moderate alcohol consumption (1 drink/day for women) is shown to lower risks for heart disease, it is <u>not</u> recommended that nondrinkers start using alcohol or increase the amount they drink.





Physical inactivity

Lack of physical activity is a risk factor for heart disease and indirectly increases the risk of stroke. It was found that heart disease was almost 2x's as likely to develop in inactive people than in those who are more active. The <u>American Heart</u> <u>Association</u> recommends accumulating at least 30 minutes of physical activity on most or all days of the week.

• Obesity and overweight

If an individual has too much fat, especially if it is mostly located in the waist area, then he/she is at a higher risk for health problems, including high blood pressure, high blood cholesterol, high triglycerides, diabetes, heart disease & stroke.

• <u>Diabetes mellitus</u>

Compared to women without diabetes, women with diabetes have a <u>two to six</u> <u>times</u> higher risk of heart disease and heart attack.





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<u>High Risk</u>

or diabetes is already present.

How do women know if they're at risk of heart disease?

Heart disease or another serious, high-risk condition, such as kidney disease

 <u>Intermediate Risk</u> You have metabolic syndrome, early signs of cardiovascular disease, multiple risk factors— such as smoking, high blood pressure or high cholesterol— or parents, siblings or children with early-onset heart disease. <u>Lower Risk</u> You may have metabolic syndrome or one or more risk factors. <u>Optimal Risk</u> You have the best possible risk profile and you live a heart-healthy lifestyle. 	
Pennington Nutrition Series, Number 27, 2005 Edited : October 2009 Authors: Heli Roy PhD, RD Shanna Lundy, BS Beth Kalicki Division of Education Phillip Brantley PhD, Director Pennington Biomedical Research Center Claude Bouchard PhD, Executive Director	The Pennington Biomedical Research Center is a world-renowned nutrition research center. Mission: To promote healthier lives through research and education in nutrition and preventive medicine. The Pennington Center has several research areas, including: Clinical Obesity Research Experimental Obesity Functional Foods Health and Performance Enhancement Nutrition and Chronic Diseases Nutrition and the Brain Dementia, Alzheimer's and healthy aging Diet, exercise, weight loss and weight loss maintenance The research fostered in these areas can have a profound impact on healthy living and on the prevention of common chronic diseases, such as heart
References: The American Heart Association. 2005. Available at: http://www.americanheart.org Accessed: August 19, 2005. Texas Heart Institute. Available at: http://www.texasheartinstitute.org/women.html Accessed: July 29, 2005. Mayo Clinic. Available at: http://www.mayoclinic.com/invoke.cfm?id=HB00040 Accessed: July 29, 2005.	 disease, cancer, diabetes, hypertension and osteoporosis. The Division of Education provides education and information to the scientific community and the public about research findings, training programs and research areas, and coordinates educational events for the public on various health issues. We invite people of all ages and backgrounds to participate in the exciting research studies being conducted at the Pennington Center in Baton Rouge, Louisiana. If you would like to take part, visit the clinical trials web page at www.pbrc.edu or call (225) 763-3000.