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## **Woman and Heart Disease**

**By: James L. Holly**

Heart disease is the number one killer of American men and women. Many believe that women aren't as susceptible to heart disease as men, but that is not true.

While heart disease is rare in women under age 50, the postmenopausal woman's risk quickly equals that of a man with the same risk factors. In 1996, coronary artery disease (CAD) claimed the lives of more than 505,930 women. In the same year, 453,297 men died from CAD. The facts are that heart disease kills twice as many women every year as all forms of cancer combined.

Since 1984, men have experienced a decline in deaths due to heart disease; women have not. Women and their doctors may not know heart disease is the main killer of women. A survey revealed that women fear breast cancer most, even though heart attack, stroke and other heart conditions kill more than 10 times as many women every year. One of three primary care physicians surveyed in 1995 did not know that heart disease is the leading cause of death among American women, and seventy percent of women surveyed said their doctors did not discuss heart disease with them when discussing overall health.

Women and doctors may not realize many risk factors for heart disease are different in men and women.

1. Low levels of the good cholesterol, HDL, may be more of a risk factor for heart disease in women than in men.
2. High triglyceride levels (another type of fat in the blood) are an independent risk factor for heart disease in women aged 50 and over, but not in men.
3. Type II diabetes is a greater risk for heart disease in women than men.
4. Women have a higher risk of stroke, and are more likely to have a stroke within six years of a heart attack than men.
5. Women's symptoms of heart disease may not be recognized because they may be different than men's.
6. Women most often experience angina (chest pain) as the initial and subsequent symptom of heart disease, whereas in men, heart attack and sudden death are often the first symptoms.

7. Women are likely to have more subtle symptoms, such as indigestion, abdominal or mid-back pain, and nausea and/or vomiting.

While the risk factors for heart disease are to some extent the same for women as they are for men, the risks may not carry the same weight for both sexes. What we do know is that the physiologic changes associated with menopause dramatically increase heart disease risk. Women lose the protective effects of estrogen. Their levels of high-density lipoprotein ("good" cholesterol) decrease, and their levels of low-density lipoprotein ("bad" cholesterol) increase. These changes contribute to atherosclerosis. Estrogen replacement therapy may decrease heart disease risk by up to 50%, but it is also associated with other risks.

Women with heart disease have a poorer prognosis than men. The reasons have to do with age at onset of symptoms and other illnesses associated with that advanced age. Women are more likely to initially present with angina than men. And, once a woman develops a myocardial infarction (MI), her chances of dying are much greater than a man's. Women are two times more likely to die in the first few weeks post-MI. They also have a higher mortality rate in the first year after an MI and they're more likely to have another MI in the next 5 years.

Why do women fare worse than men when it comes to heart disease? Women develop heart disease 10 to 20 years later than men, at a time in their lives when they may have other health problems. Women also develop more conditions that either contribute to the development of heart disease--such as hypertension or diabetes--or complicate the recovery phase--such as heart failure, stroke, or arrhythmia.

Chest pain is the most common symptom of heart disease in both men and women. But how that pain presents may differ dramatically between the sexes.

Men typically experience substernal chest pain that radiates down the left arm. Many women describe a heaviness in the shoulder, jaw, neck, back, throat, or teeth, and not in the chest. They experience nausea, vomiting, and shortness of breath more frequently than the chest pain pattern typical of men. Women are also more likely to have intermittent pain or no pain at all. Silent ischemic events account for up to 25% of MIs experienced by women.

Diagnostic tests have varying rates of reliability in women. Among the least reliable are the exercise stress test and the ventriculogram, both of which have high false-negative rates in women. The most reliable noninvasive diagnostic test for women is the stress echocardiogram, which is 90% accurate in diagnosing single-vessel disease. The thallium stress test is also more reliable than the exercise stress test. A cardiac catheterization is indicated if there's a high suspicion of CAD.

In addition, women may respond differently than men to certain cardiac drugs. For example, women have more complications and a slightly higher mortality rate after receiving thrombolytic therapy. A recent study showed an increased risk of complications, especially intracranial bleeding, in women who weigh less than 165

pounds (75 kg). We also know that nitrates and calcium channel blockers are the best choices for managing angina in women. Post-MI, beta-blockers are equally important in preventing reinfarction in both men and women.

An important question is, "Do women need smaller doses of cardiac medications or even different drugs?" The answer is unclear at this time. Most medication studies were done on men and physicians only recently recognized the importance of medication research that examines gender-specific effects. Smaller doses of some drugs, such as nitrates or thrombolytics, would be more consistent with a woman's generally smaller body size and smaller coronary artery diameter.

Despite the higher morbidity and mortality rates in women post-MI, they typically get less-aggressive clinical care. For example, one study documented that men are more likely than women to get intravenous nitroglycerin, heparin, and "clot-busting" thrombolytic therapy following acute MI. Other research has shown that women are less likely than men to be referred for cardiac catheterization, percutaneous transluminal coronary angioplasty, or coronary artery bypass graft surgery.

Coronary by-pass surgery doesn't seem to be as helpful in woman, either. Death rates are higher for women because of their advanced age, worse preoperative health status, and increased risk factors. Women also have longer hospital stays with more postoperative complications and hospital readmissions. Although the 5- and 10-year survival rates are the same for men and women, women have a lower quality of life: less angina relief, more symptoms overall, and poorer health.

Historically, women have been excluded from large clinical trials focused on heart disease. Today, however, studies like the Women's Health Initiative, a 15-year National Institutes of Health study, promise some definitive answers to questions about cardiovascular risk factors, prevention strategies, diagnostic tools, and treatments. In the meantime, women of all ages must take every opportunity to prevent heart disease by exercising; following a low-fat, low-cholesterol diet; and not smoking.

Next week we'll discuss what women can do to reduce their risk of coronary heart disease.

Until then, remember, it is your life and it is your health.