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Prevention of Coronary Heart Disease (CHD) in Women
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If you ask women what health issue they worry the most about, breast cancer would be at the top of the list. Yet, 500,000 women die annually from coronary artery disease (CAD), which exceeds the number of deaths in men from the same condition. The number of women who die of heart disease each year exceeds the number of deaths in women from all cancers combined, and for every one woman who dies of breast cancer, twelve die of heart disease. Four out of five of 5 women are unaware that heart disease is their greatest health threat.

The reality is that a great deal can be done to prevent and/or to treat heart disease in woman. The major, modifiable risk factors for heart disease in woman are:

- Hypertension
- Diabetes
- Abnormal cholesterol
- Smoking
- Sedentary Life Style
- Inflammation

Hypertension

The prevalence of high blood pressure, defined as a systolic pressure above 140 and/or a diastolic pressure above 90, increases in woman with age. By age 60, systolic blood pressures are greater in women than in men. Over 75 years of age, 80% of women are hypertensive.

The association between hypertension and CAD in women is clear and women with hypertension have four times the relative risk of myocardial infarction. Women with hypertension have seven times the risk of fatal coronary events.

Decreasing the blood pressure has proven effective in lowering cardiovascular disease (CHD) risk. Modest reductions due to the following can have a significant effect on reducing cardiovascular disease risk:

- increasing physical activity
- reducing weight
- decreasing alcohol intake
- decreasing sodium (salt) intake.

Women often have inadequate blood pressure control. In one study, 71% of women over 70 had inadequate blood pressure control in one study.

Diabetes

Diabetes is a major risk factor for CHD, in fact, diabetes is called a "risk equivalent" because it ranks with high blood pressure and elevated cholesterol as major risks for CHD. The increased risk for CHD associated with diabetes is greater for women than for diabetic men. And, diabetic women are more likely to die after an MI than men. Women with diabetes also have higher rates of other CHD risk factors, such as:

- Hypertension
- High cholesterol
- Obesity
- Sedentary life style

However, even eliminating these factors, women still have an increased risk of CHD mortality compared with diabetic men. There is increasing evidence of a continuous linear relationship between blood glucose levels and macrovascular disease such as CAD. This means that the higher the average blood sugar in a diabetic patient, the greater the risk of heart disease becomes.

In January, 2004, the American Diabetic Association set treatment goals for diabetics of 7% HgbA1c and 130/80 blood pressure. In diabetic woman, given the excess mortality compared with diabetic men, these guidelines may be inadequate.

Cholesterol

The Framingham study and others have clearly established the association between hyperlipidemia (elevated cholesterol) and CHD risk. At hour next office visit, ask your doctor to calculate your Framingham Risk Score. If it is above 20%, you are at high risk of heart disease; if it is between 10% and 20%, you are at intermediate risk.

Yet, even here there is a difference in the risk between men and women. Cholesterol levels change differently for men and women:

- Under the age of 20, cholesterol levels are comparable between men and women.
- From 20-55, men have on average higher total cholesterol values.
- After age 55, cholesterol values in women rise, with an increase in both total and LDL cholesterol (the bad cholesterol).

HDL levels (the good cholesterol) decrease slightly after menopause but throughout their lifetime, women have on average higher HDL than men. The LDL seems to a less potent risk factor for CHD in women compared with men. This is especially true for women over 65. For women age 65 and older, an LDL value 160 mg/dl or higher increased risk by 1.13 for a CHD event compared with women with an LDL less than 140 mg/dl. For women younger than 65, an LDL of 160 mg/dl or greater has a risk 3.27 compared with LDL values less than 140.

Women older than 71 with an HDL above 60 mg/dl had half the risk of CHD compared with women with HDL cholesterol lower than 35 mg/dl. For women over 65, HDL is the only significant lipid predictor for CHD.

Secondary prevention studies have shown risk reduction with cholesterol treatment for men and women. For women with above average risk for CAD, aggressive management of high cholesterol levels I necessary for CHD risk reduction

Smoking

Cigarette smoking has been linked to CHD in women since 1976. Women who smoke more than 34 cigarettes a day have a sevenfold increased risk of coronary events. Smoking has been linked to an increased risk of fatal and nonfatal MI. Yet, Men have higher quit rates than women smokers. Some of the reasons why men quit smoking more than men are:

- Women are less likely to associate smoking with negative health risks.
- Although lung cancer surpasses breast cancer as the number one cancer killer of women, women sill fear breast cancer as their greatest health risk and are less likely to fear heart disease.

Women have a harder time quitting.

- Women use smoking as a coping mechanism Women use smoking as a coping mechanism
- Nicotine results in a state of euphoria and an increased state of alertness that may enhance psychological addition.

Obesity

Obesity is associated with the CHD risk factors of:

- Diabetes
- Hypertension
- High cholesterol

Women with a body mass index off 32 or greater have a relative risk of 4.1 versus those with woman with a BMI less than 19. Weight reduction alone may not improve CHD risk but it does improve:

- Glucose control.
- Blood pressure
- Lipid profiles

Exercise

The beneficial results of exercise on CHD risk have been proved. Walking briskly or exercising vigorous for at least 2.5 hours per week confers a 30% risk reduction in cardiovascular events. Prolonged sitting was associated with a significantly increase in cardiovascular risk.

Aspirin

Aspirin irreversibly inhibits platelet aggregation – platelets sticking together which is the first step of a blood clot which often triggers a heart attack. However, the role of aspirin in women is less clear as the decreased risk of CHD in women on aspirin is not significant. Yet, the benefits of aspirin increases with increasing cardiovascular risk. The use of aspirin for the primary prophylaxis of CHD should be initiated:

- For patients with a Framingham 10-year risk score of 15% or greater who do not have contraindications to its use.
- For patients with a Framingham 10 year risk score of 6% or less, they should not receive aspirin.
- For patients with a Framingham risk score 7%-14% should be considered on an individual basis.

Conclusion

CHD mortality rates have been declining for the past few decades, this decline ahs been greater for men than for women. Given that CHD increases with age and that women over 75 make up the fastest growing portion of the population, strategies to prevent CD are paramount to the health of women.

Modifiable risk factors for heart disease include:

- Control of hypertension
- Control or prevention of diabetes
- Cessation of smoking
- Prevention f weight gain
- Increase of physical activity

For women at above-average risk for heart disease aggressive management of cholesterol and the use of low-dose aspirin are likely to be beneficial for CHD risk reduction.

You can change your cardiovascular risk. Your health care provider can help you, but ultimately, it is your life and it is your health.