It is well established that cardiovascular disease (CVD) is the leading cause of death among women, accounting for one third of all deaths. To put this in perspective, CVD kills women annually nine times more then breast cancer does. Unfortunately this fact and the fact that more women then men die of heart disease annually in the United States is largely unknown by not only lay people but physicians as well. It is an understatement to say that the prevention of CVD is paramount to the health of every woman and every nation. There are treatments for CVD and there are evidence based preventive measures that if implemented appropriately would make a major impact on the death rate from CVD.

Recently a group of experts representing The American Heart Association published a report of evidence-based guidelines for primary and secondary CVD prevention in women. These guidelines which were approved on January 7, 2007 can be reviewed in full in either Circulation or the Journal of The American College of Cardiology, two prestigious cardiology publications. The panel, composed of leading experts in the medical field, ranging from cardiologists to gynecologists, systematically searched and reviewed over 5500 abstracts, 828 full-text articles, 77 meta-analyses considered the highest of quality science before they published their findings and recommendations. Interestingly, with few exceptions (i.e. the use of aspirin for primary prevention of heart disease) recommendations to prevent CVD in women do not differ from those for men. What matters is the realization by the lay population and by the medical community that CVD in women is a public health epidemic and must be taken seriously. Simple adherence to assessing risk for CVD and implementing guidelines appropriately can dramatically affect morbidity and mortality from CVD.

These guidelines cover the primary and secondary prevention of chronic atherosclerotic vascular disease. That means there are recommendations for preventing the development of coronary artery disease as well as preventing further extension of coronary artery disease when already present. What is different about these guidelines as compared to the 2004 guidelines is the emphasis on a woman’s lifetime risk rather than the short-term risk. These recommendations apply to women age 20 and older. Another change in the approach is the classification system utilized by the panel; instead of determining whether a woman is low, intermediate or high risk the panel asks that we classify our patients as high risk, at risk or optimal risk because every woman is at risk.

The rational behind this approach is the feeling amongst the panel members that physicians do not do a good job at encouraging life long adherence to healthy habits. Rarely do doctors encourage their patients to continue with their healthy lifestyles when they are considered low risk. If we can make our patients understand that it is a lifetime of healthy living that allows one to remain at optimal risk. For instance, if you happened to never have developed heart disease but were overweight, sedentary and had high cholesterol and blood pressure and then managed to lose all the weight, exercise daily and now have normal blood pressure and optimal cholesterol levels, you should not only be praised for an outstanding job well done but encouraged to maintain this level of excellence for your lifetime. My fiancé is at optimal risk in her life; she has no classic risk factors and the likelihood of developing heart disease is low over the next ten years. But, by continuing to adhere to a healthy lifestyle she will significantly decrease the likelihood that she will have to take medication in the future. By making the effort to maintain a healthy lifestyle and keep yourself at optimal risk throughout your life the less likely you will need repeated medical care and the less likely you will have heart disease.

If you think that vitamins, folic acid, or hormone replacement therapy helps the evidence suggests otherwise. The panel revised the previous stand on

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these therapies and states that hormone therapy, antioxidant supplements such as vitamin E and C, and Beta-carotene as well as folic acid with or without B6 and B12 should not be used for primary or secondary prevention of coronary artery disease. There is absolutely no benefit from these therapies and in some trials these supplements have been shown to be detrimental to your health.

The use of aspirin has also been revised as a result of recent landmark trial results. For high-risk women, aspirin therapy, at 75-325 mg/day, is recommended unless contraindicated, in which case, clopidogrel (plavix) should be substituted. High risk includes women with Diabetes Mellitus or confirmed coronary artery disease, carotid artery stenosis, or prior peripheral vascular disease. For other at-risk women, aged 65 or older, aspirin at 81 or 100 mg every other day should be used if their blood pressure is controlled and there is no significant risk of GI bleed or hemorrhagic stroke. The evidence is not as strong in women younger than 65 years but the panel suggests that the use of aspirin should still be considered if risks of bleeding are low. In women who are younger than 65 and deemed to be at low risk or optimal risk taking aspirin may be dangerous. Therefore, unless you have coronary artery disease or an equivalent, a daily aspirin is not recommended for women under 65. Discuss this with your physician.

The guidelines provide physicians with an algorithm to help guide appropriate preventive therapy and discussion with the patient. For instance, every woman should be encouraged to engage in smoking cessation, heart-healthy eating, regular physical activity (60-90 minutes of cardiovascular training daily if possible), and weight loss to get to an acceptable BMI (body-mass index). Then if you are categorized as high risk for an event or death from a cardiovascular cause further evidence based guidelines are strongly recommended to be implemented by your doctor. These include the use of tight blood pressure control to goal of 120/70 mmHg, LDL goal to < 100 (for some 70), aspirin or other antiplatelet agents, beta-blockers, angiotensin-converting enzyme inhibitors/angiotensin receptor blockers, tight glycemic control in diabetics with goal HbA1c to 6.1, and aldosterone blockers in select women. You are high risk if you have established coronary artery disease, cerebrovascular disease, peripheral arterial disease, abdominal aortic aneurysm, diabetes mellitus, chronic renal disease or have a Framingham global 10-year risk assessment > 20%.

The panel chairman, Dr. Lori Mosca of Columbia New York Presbyterian Hospital, stresses the prevention guidelines physicians perform poorly when it comes to guiding their patients on the right track and encouraging their patients to strive for continued excellence. She encourages all physicians to help guide each patient for a lifetime and not just for the moment. She also wants us to understand that these are merely guidelines that are meant to help the medical community and the non-medical community better deal with a growing epidemic and that not all people fall exactly within these generalized categories. That is why it is extremely important for you to discuss the topic of heart disease with your physician. This topic needs to be re-explored throughout your relationship and adjustments to ensure you lower your risk should constantly be implemented and encouraged.

Included in the guidelines is an algorithm that your health care provider can use to evaluate a woman’s cardiovascular disease risk, as well as a list of preventive measures, lifestyle interventions, major risk factor interventions and preventive drug interventions. Each recommendation is accompanied by the strength of the recommendation and evidence used to support its strength. There is also a table of interventions that are not useful and in some cases harmful.

Other recommendations include advising women who need to lose weight or sustain weight loss to engage in moderate intensity physical activity for 60-90 minutes on most but preferably all days of the week. Those women who are at appropriate weight levels should exercise at least 30 minutes of moderate intensity physical activity on most, but preferably all, days. The goal weight for women is either a Body-Mass Index of 18.5-24.9 kg/m2 and a waist circumference < 35. All women should consume a diet rich in fruits and vegetables, choose whole-grain, high-fiber foods; consume fish, especially oily fish at least twice a week; limit intake of saturated fat to <10% of energy, and if possible to <7%, cholesterol to <200mg/d, alcohol intake to no more than 1 drink per day (5oz glass of wine) and sodium intake to < 2.3 g/d (approximately 1 teaspoon). Consumption of trans-fatty acids should be as low as possible.

Finally the panel made the following comments. There are many gaps in understanding heart disease in women that only further research can close. This includes research in the field of genetics, gender differences in response and outcomes to available and developing therapies as well as biomarkers and diagnostic testing.

Although there is a great deal left to learn we must first be able to do well at what is already known. Health care providers have been provided with a set of guidelines that if utilized properly and persistently can make a positive impact on cardiovascular disease in women.

About The Author
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