



February is Heart Health Month

Cardiovascular disease (CVD), which includes a number of conditions of the heart and blood vessels including coronary heart disease and stroke, remains the leading cause of death for women nationwide. In fact, since 1984, the number of CVD deaths for females has exceeded that of males.ⁱ

In LA County, coronary heart disease is the leading cause of death and premature death among women of all ethnicities. About 8% of adult women in Los Angeles County report having been diagnosed with heart disease but 40% are currently at risk, which is defined as having two or more of the following risk factors: cigarette smoking, physical inactivity, obesity, diabetes, hypertension, and high cholesterol.ⁱⁱ Additionally, stress is increasingly being recognized as an important risk factor for developing heart disease. Individual, social, and environmental factors all influence stress.

Stress as a risk factor for heart disease

When an individual experiences stress, their body releases hormones that increase blood pressure and heart rate which can damage arteries. It becomes even more harmful for those who experience chronic stress.ⁱⁱⁱ

Stress can be triggered by a variety of things including work, school, health problems, family problems, and traumatic experiences. Among these stressors, work is a common source of stress for individuals. In fact, one-fourth of employees view their jobs as the number one stressor in their lives and 40% of workers report that their job is “very or extremely stressful.”^{iv}

Some of the ways in which people cope with stress such as overeating, eating unhealthy foods, smoking, and drinking alcoholic beverages can also increase their risk for heart disease. Learning to deal with stress in a positive way such as increasing physical activity can help reduce an individual's risk for heart disease.

Economic hardship and premature heart disease deaths

Economic hardship and income level are also associated with a risk for heart disease. Among women in LA County, there is a clear link between income and risk of heart disease. About half of women living at or below 100% of the Federal Poverty Level (FPL) are at risk for heart disease compared with 31% of women living at or above 300% FPL.^v

There is also a strong correlation at the community level between greater economic hardship and higher premature death rates due to heart disease and stroke. The areas with the most heart disease and stroke like Bellflower, Compton, and Lancaster are also those with the highest economic hardship in LA County. This trend holds true even after controlling for access to health care and lifestyle factors, which suggests that chronic stress associated with living in impoverished circumstances is a risk factor for heart disease.^v

Maternal stress and heart disease

Pregnant women who experience psychosocial stress due to economic hardship, housing instability or other stressors are at an increased risk for delivering pre-term infants.^{vi} Pre-term infants exposed to maternal stress have been found to be more susceptible to heart disease later in life. In fact, heart disease risk can already start in the womb.^{vii}

These findings emphasize the need for women to understand the impact stress can have on their bodies prior to conception. It is important to maintain a physically and mentally healthy body through balancing a healthy weight, eating right, exercising, and monitoring stress levels.^{viii}

Prevention - Coping with Stress

Learning to cope with stress is an important skill to have in preventing heart disease. The following are some recommendations from the American Heart Association:^{ix}

- **Talk with family and friends** - a daily dose of friendship is great medicine.
- **Engage in daily physical activity** - it relieves mental and physical tension.
- **Remember to laugh** - it makes you feel good.
- **Give up the bad habits** - too much alcohol, cigarettes or caffeine can increase stress.
- **Get organized** - create to-do lists so you don't feel overwhelmed.
- **Practice giving back** - helping others helps you.

These measures are important for women across the entire lifespan to reduce their heart disease risk.

Be Active, Eat Smart, Don't Smoke, Get Checked!

The DHHS National Health Observances Toolkit provides additional facts, tweets, and resources for your constituents: <http://healthfinder.gov/nho/>

Visit the American Heart Association's website at www.heart.org for more information on ways to cope with stress and to live heart healthy!

ⁱ American Heart Association. Women and Cardiovascular Disease. Statistical Fact Sheet – 2012 Update

ⁱⁱ Los Angeles County Department of Public Health, Office of Women's Health. Health Indicators for Women in Los Angeles County: *Highlighting Disparities by Ethnicity and Poverty Level*, February 2010.

ⁱⁱⁱ National Cancer Institute. *Physiological Stress and Cancer: Questions and Answers fact sheet.*

<http://www.cancer.gov/cancertopics/factsheet/Risk/stress>.

^{iv} Centers for Disease Control and Prevention. *Stress...at work.* Accessed at <http://www.cdc.gov/niosh/docs/99-101/> on 2/13/2012.

^v Los Angeles County Department of Health Services, Public Health. Premature Deaths from Heart Disease and Stroke in Los Angeles County: A Cities and Communities Health Report. January 2006.

^{vi} Goldenberg, RL., Culhane, JF., et al. Epidemiology and causes of preterm birth, *The Lancet*, Volume 371, Issue 9606, 5–11 January 2008. <http://www.sciencedirect.com/science/article/pii/S0140673608600744>

^{vii} Merlot, E., Couret, D., Otten, W. Prenatal stress, fetal imprinting and immunity, *Brain, Behavior, and Immunity*, Volume 22, Issue 1, January 2008, Pages 42-51, ISSN 0889-1591, 10.1016/j.bbi.2007.05.007.

(<http://www.sciencedirect.com/science/article/pii/S0889159107001559>)

^{viii} Thornburg KL, O'Tierney PF, Louey S. Review: The Placenta is a Programming Agent for Cardiovascular Disease. *Placenta* 2010;31S: S54-S59.

^{ix} American Heart Association. *Fight stress with health habits*, May 2011.