According to a scientific statement published in the American Heart Association’s journal Circulation, a woman’s heart attack may have different underlying causes, symptoms and outcomes compared to men, and differences in risk factors and outcomes are further pronounced in black and Hispanic women.

EUEC Member Nanette Wenger, MD, and Emory cardiology researcher Viola Vaccarino, MD, PhD, were among a small group of co-authors on the statement, the first ever from the American Heart Association on heart attacks in women. It addresses dramatic declines in cardiovascular (CV) deaths among women due to improved treatment and prevention of heart disease as well as increased public awareness.

“This state-of-the-art manuscript brings to light many critical issues for women and reminds us that although there have been improvements in cardiovascular deaths over the last decade, cardiovascular disease in women remains under-studied, under-diagnosed and under-treated,” says Wenger, professor of medicine, Emory University School of Medicine, and former chief of cardiology at Grady Memorial Hospital.

Internationally recognized as a leading authority on coronary heart disease in women, Wenger coauthored a landmark 1993 article in the New England Journal of Medicine that aggressively debunked the common belief that heart disease was a man’s disease. Today, because of her pioneering clinical and research efforts, it is known that CV disease is the number one killer of women in the United States and is more deadly than all forms of cancer combined.

Highlights of the AHA statement include:

- **Causes:**
  Heart attacks caused by blockages in the main arteries leading to the heart can occur in both men and women. However, the way the blockages form a blood clot may differ. Compared to men, women can have less severe blockages that do not require any stents; yet the heart’s coronary artery blood vessels are damaged which results in decreased blood flow to the heart muscle. The result is the same – when blood flow to the heart is decreased for any reason, a heart attack can occur. If doctors don’t correctly diagnose the underlying cause of a woman’s heart attack, they may not be prescribing the right type of treatments. Medical therapies are similar regardless of the cause of the heart attack or the severity of the blockages. However, women are undertreated compared to men despite proven benefits of therapies.

- **Treatment:**
  Women face greater complications from attempts to restore blood flow because their blood vessels tend to be smaller, they are older and have increased rates of risk factors, such as diabetes and high blood pressure. Guideline-recommended medications are consistently underutilized in women, leading to worse outcomes. Also, cardiac rehabilitation is prescribed less frequently for women and even when it is prescribed, women are less likely to participate in it or complete it.

- **Symptoms:**
  While the most common heart attack symptom is chest pain or discomfort for both sexes, women are more likely to have atypical symptoms such as shortness of breath, nausea or vomiting, and back or jaw pain.

- **Risk factors:**
  Risk factors for heart attacks also differ in degree of risk in men compared to women. For example, high blood pressure is more strongly associated with heart attacks in women and if a young woman has diabetes her risk for heart disease is four to five times higher compared to young men.

- **Racial differences:**
  Compared to white women, black women have a higher incidence of heart attacks in all age categories and young black women have higher in-hospital death rates. Black and Hispanic women tend to have more heart-related risk factors such as diabetes, obesity and high blood pressure at the time of their heart attack compared to non-Hispanic white women. Compared to white women, black women are also less likely to be referred for important treatments such as cardiac catheterization.
In 2014, Wenger helped found the Emory Women’s Heart Center (EWHC) as a program uniquely dedicated to the screening, prevention and treatment of heart disease in women. With six locations in the metro Atlanta area, one of the main goals of the Center is to raise awareness among women of the dangers of heart disease.