

*Study highlights:*

- *Study of 30 women (average age 48) who suffered a heart attack.*
- *Many of the women did not know that less typical symptoms such as neck and shoulder pain, indigestion and fatigue could signal a heart problem.*
- *Researchers said young women, their families and healthcare providers must be educated on how young women with heart disease may present with typical and atypical symptoms.*

**American Heart Association meeting report**

**Some women more likely to miss or ignore heart attack warning signs**

BALTIMORE, Md., May 2 — Many women under 55 aren't seeking timely treatment for heart attack because they expect the warning signs and their reaction to follow a Hollywood script — tightening in the chest, shortness of breath, clutching the heart while dropping to one knee.

That's the finding of researchers who presented their study at the American Heart Association's 9<sup>th</sup> Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke.

"We found that most failed to connect their symptoms with a heart condition, commonly misattributing them to fatigue, indigestion, stress or overexertion," said Judith Lichtman, Ph.D., lead author of the study and associate professor of epidemiology and public health at the Yale School of Medicine in New Haven, Conn.

Findings from a prior pilot study of 24 women (55 and younger) found that more than half of women in the pilot study delayed seeking care for more than an hour.

The current study of 30 women who had suffered a heart attack (average age 48) allowed the young women to talk about their experiences in great detail, using their own words to describe their recognition of symptoms, their initial actions (or lack of action), and reasons for not seeking prompt care.

"The stories they told were incredibly rich in detail," Lichtman said. "We learned that many of these women had no idea that they were at risk for heart disease and were unaware that their symptoms could be connected with a heart problem, citing the lack of good examples in the public media to help them recognize atypical symptoms, or realize that someone their age could even be at risk for a heart problem. We also learned much more about their experiences with the health care system in terms of preventive care and the care they received during the acute presentation."

Researchers conducted in-depth telephone interviews with women within seven days of their hospital discharges for heart attacks between October 2006 and May 2007. The interviews explored the women's initial recognition and response to symptoms, their healthcare beliefs and their acute healthcare experiences.

"The interviews lasted roughly 30 to 40 minutes, and the more open-ended format allowed the young women to describe their experiences in detail," Lichtman said.

"Many of the women said they were surprised that their actual symptoms differed from the 'Hollywood heart attack' that they would have expected. They wish that they had known that less typical symptoms such as neck and shoulder pain, indigestion and fatigue could signal a

heart problem. They often said that TV doesn't show examples of the symptoms they experienced. If they knew, they would have responded to the symptoms sooner."

The participants described a complex internal dialogue as they decided when to engage the healthcare system and identified an array of factors that contributed to delays, ranging from:

- Uncertainty
- Preference to self-medicate
- Perceived negative treatment by healthcare providers
- Competing time/family demands
- Individual beliefs and behaviors to health system failures
- Seeking corroboration of symptoms and deferring responsibility to engage the healthcare system

Many of the women said they didn't receive prompt care for their symptoms because they called their physician and got an appointment within a few days. Some said they experienced long delays in the emergency room because they were triaged for non-cardiac conditions.

"While this was certainly not the experience for all women, repeated stories of being triaged initially for non-cardiac conditions suggest that additional work is needed to help young women, their families, and healthcare providers recognize that young women with heart disease may present with typical and atypical symptoms," Lichtman said. "There are large gaps in our understanding of the symptoms young women experience or reasons they delay seeking prompt care. It is important to help young women recognize that they can be at risk for heart disease despite the fact that we often associate heart disease with older patients.

"Although young women represent less than 5 percent of all patients with heart disease, this is significant because it still translates to 16,000 deaths and about 40,000 hospitalizations annually — a number that rivals breast cancer in this age group. Because heart disease is less common at this younger age, current media campaigns and prevention messages do not appear to be reaching this group."

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