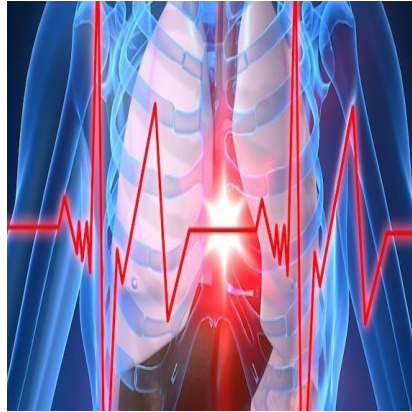




## Use of Gender-Specific Chest Pain Symptoms in Early Diagnosis of Heart Attack not Conclusive



A study published by JAMA Internal Medicine does not appear to support the use of chest pain characteristics (CPCs) specific to women in the early diagnosis of acute myocardial infarction (AMI, heart attack) in the emergency department.

The vast majority of patients with AMI (90%) report chest pain or discomfort, however some patients present without typical chest pain. Gender-specific differences in symptom presentation among women have received increasing attention. As the authors write, it remains unclear though whether identifying specific to gender CPCs is a possibility to help physicians differentiate women with AMI from women with other causes of chest pain.

Maria Rubini Gimenez, M.D., of University Hospital Basel, Switzerland, and colleagues analysed whether sex-specific CPCs would allow physicians make that differentiation.

Their study investigated close to 2,500 patients (796 women and 1,679 men) who were admitted to nine emergency departments with acute chest pain in the period from April 2006 to August 2012. AMI was the final diagnoses in 18% of the women and 22% of men. Researcher included the analysis of 34 CPCs, including location, onset and pain radiation to other parts of the body.

Study findings suggest most CPCs were reported with similar frequency in women and men, although some had a higher prevalence in women. Most of the CPCs examined also did not differentiate AMI from other causes of acute chest pain. Only three CPCs related to pain duration and decreasing pain intensity appeared related to sex-specific diagnostic use, which researchers acknowledge could be the result of chance.

The authors conclude that the data confirmed CPCs were not powerful enough to be used as a single tool in the diagnosis of AMI and needed to be always be combined with the ECG (electrocardiogram) and cTn (cardiac troponin) test results.

Louise Pilote, M.D., M.P.H., Ph.D., of McGill University Health Center, Quebec, Canada writes in a related commentary: "Gimenez et al asked whether detection of sex-specific chest pain characteristics (CPCs) would allow emergency department physicians to diagnose AMI in women more accurately."

"The study revealed that none of the CPCs were more useful at enhancing the posttest probability of AMI in women compared with men," Pilote continues.

“The authors are to be congratulated for providing clarification on whether men and women have fundamental differences in their presentation of chest pain. Their work clarifies that presentation of chest pain between men and women is not as different as commonly thought and provides new knowledge on the value and limitation of chest pain in making a diagnosis of AMI in women as well as in men,” Pilote concludes.

Source: [JAMA](#)

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