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## Sex Differences in Risk Factors to Predict Heart Attack



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A new study has identified the risk factors that are more likely to trigger a heart attack or acute myocardial infarction (AMI) for men and women 55 years and younger. The findings are published in JAMA.

Significant sex differences have been reported in risk factors associated with AMI and in the strength of associations among young adults. These findings highlight the need for a more sex-specific preventive strategy when managing these patients. For example, hypertension, diabetes, depression, and poverty had stronger associations with AMI in women compared with men, as reported in this study.

In this study, the researchers examined the relationship between a wide range of AMI-related risk factors among younger adults. Data from 2,264 AMI patients from the VIRGO (Variation in Recovery: Role of Gender on Outcomes of Young Acute Myocardial Infarction Patients) study was used and 2,264 population-based controls were matched for age, sex, and race from the National Health and Nutrition Examination Survey (NHANES).

The most important finding from this study is that young men and women have different risk factors. In women, for example, seven risk factors were associated with a greater risk of AMI. These include diabetes, depression, hypertension or high blood pressure, current smoking, family history of AMI, low household income, and high cholesterol. The highest association was diabetes, followed by current smoking, depression, hypertension, low household income, and family history of AMI. In men, current smoking and family history of AMI were the leading risk factors.

Study researchers believe that it is important to raise awareness among physicians and young patients. Initiatives, such as the American Heart Association's "Go Red for Women" campaign, should be expanded to increase awareness about cardiovascular disease risk in young women. Health care providers also need to identify effective strategies to improve optimal delivery of evidence-based guidelines on preventing AMI.

The researchers also found that many traditional risk factors including hypertension, diabetes, and high cholesterol, are more prevalent in type-1 AMI, whereas different AMI subtypes -- including type-2 AMI (a subtype associated with higher mortality) -- are less common.

Previous studies have shown that women-related factors may be associated with risk of heart attack, but there is limited data on women under the age of 55. There is a need to further explore specific women-related factors such as menopausal history, pregnancy, menstrual cycle, and other factors and analyse whether they contribute to the risk of heart attack.

Source: [Yale University](#)

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