

Race and ethnicity important when evaluating risk of fat around the heart

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A man's likelihood of accumulating fat around his heart – an important indicator of heart disease risk – may be better determined if doctors consider his race and ethnicity, as well as where on his body he's building up excess fat, reveals an international evaluation led by the University of Pittsburgh Graduate School of Public Health.

The findings, published online today in the *International Journal of Obesity*, indicate that it may be useful to take racial and ethnic differences into account when designing programs to reduce obesity because what works for one man might not be as beneficial for another. This analysis was funded in part by the National Institutes of Health (NIH).

"If you are an African American man and carry excess weight mainly around the mid-section, then you have a higher likelihood of more fat around the heart than if you gain weight fairly evenly throughout your body," said lead author Samar R. El Khoudary, Ph.D., M.P.H., assistant professor in Pitt Public Health's Department of Epidemiology.

"But the reverse is true for Koreans – their [heart disease risk](#) is greater with overall weight gain. Knowing this can help doctors specify the right physical training for each racial ethnic group to reduce their heart disease risk."

Dr. El Khoudary's analysis relied on data from the "Electron-Beam Tomography, Risk Factor Assessment Among Japanese and U.S. Men in

the Post-World War II Birth Cohort Study," also known as the ERA JUMP study. It is a population-based study of men enrolled between 2002 and 2006 who were ages 40 to 49 and free of [cardiovascular disease](#), type-1 diabetes and other severe diseases at the time of enrollment.

The recent analysis took a closer look at 1,199 men in the study who were white or black from Allegheny County, Japanese-American from Hawaii, Japanese or Korean.

The study looked at the amount of fat around the heart called ectopic cardiovascular fat. Higher volumes of this fat are associated with greater risk of heart disease.

For white men, an increase in body mass index, or BMI, which is a measure of overall body fat, and abdominal fat are equally likely to indicate an increase in fat around the heart.

Compared to white men:

- Black men who carry disproportionately more weight around their mid-section are at similar risk of having more fat around their hearts. Increases in BMI have lower impact.
- Japanese and Japanese American men are also at similar risk of having more fat around their hearts if they have more fat in their abdomens, with BMI having less of an impact.
- Korean [men](#) with higher BMIs have a higher likelihood of fat around the heart, whereas abdominal fat matters less.

"What we now need to determine is whether concentrating efforts to reduce overall [body fat](#) or fat in the abdomen will actually decrease [fat](#) around the heart more in people of certain racial or ethnic groups," said Dr. El Khoudary.

"Such a long-term evaluation could help in designing race-specific [heart disease](#) prevention strategies."

Provided by University of Pittsburgh Schools of the Health Sciences

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