

Risk of a fatty heart linked to race, type of weight gain in middle-aged women

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A woman's race and where on her body she packs on pounds at midlife could give her doctor valuable clues to her likelihood of having greater volumes of heart fat, a potential risk factor for heart disease, according to new research led by the University of Pittsburgh Graduate School of Public Health.

The findings, published online today in the journal *Menopause*, show that black women who put on fat around their midsection during midlife are more likely to accumulate fat around their hearts, whereas white women's risk of fatty hearts is higher when they add weight all over. The results echo the findings of a Pitt Public Health study three years ago in men.

"Excess fat around the heart, in both men and women, is an evolving risk factor for [heart disease](#). But how can clinicians see it at a regular physical? They can't without a special heart scan," said senior author Samar El Khoudary, Ph.D., M.P.H., associate professor of epidemiology at Pitt Public Health. "This study, coupled with our previous study in men, gives doctors another tool to evaluate their patients and get a better sense of their [heart disease risk](#). It also may lead to suggestions for lifestyle modifications to help patients lessen that risk."

El Khoudary and her team evaluated clinical data, such as CT scans and blood pressure, on 524 women from Pittsburgh and Chicago enrolled in the Study of Women's Health Across the Nation (SWAN). The women were in varying stages of menopause, averaged 51 years old and were not

on hormone replacement therapy.

After accounting for the potential health effects of lifestyle and socioeconomic factors, such as smoking, alcohol consumption and financial strain, the researchers determined that, not surprisingly, the more fat a woman carries overall, the higher her risk for a fatty heart.

However, white women with higher body mass indexes, or BMI, which is a measure of overall body fat, had significantly more heart fat, as measured by a CT scan, than black women with the same BMI.

For black women, the levels of heart fat were greater if they carried more fat in their midsection, as measured by a cross-sectional CT scan, compared with white women with the same volume of fat in their midsection.

El Khoudary's team found that the heart fat black women with larger waistlines accumulate is closer to their hearts than the fat the [white women](#) with higher BMI's accumulate. Fat close to the heart secretes inflammatory markers directly to the [heart](#) tissue and produces a greater detrimental effect as it expands.

"We've now come to very similar conclusions that show excess abdominal fat is worse for both black men and women, and a higher BMI is worse for white men and [women](#) when it comes to their odds of having more fat around their hearts," said El Khoudary, who noted that the current analysis could not assess changes over time. "There is something going on here that warrants further investigation to determine why it is happening and what tailored interventions doctors may prescribe to help their patients lower their risk."

More information: *Menopause* (2017). [DOI: 10.1097/GME](https://doi.org/10.1097/GME)

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