

Hip size may be the key to link between obesity and premature death

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A research team led by Baker IDI Heart and Diabetes Institute has for the first time demonstrated that the effect of obesity on the risk of premature death is seriously underestimated unless a person's hip circumference is taken into account.

By looking at the relationship between waist and hip circumference* in a 20-year study of almost 8000 Mauritians, the research is also the first ever study to link obesity to mortality in a South Asian population.

The study was a collaboration between researchers from Australia, Sweden, Mauritius, Finland, the UK and Denmark, with the findings just published in the *International Journal of Epidemiology*.

Good evidence now exists to show that the fat tissue in the hip has quite different metabolic properties in comparison with fat tissue around the waist and is in fact protective against [metabolic disorders](#) such as diabetes and cardiovascular disease.

Higher hip circumference can also reflect greater [muscle mass](#).

"We knew that higher hip circumference was protective against [metabolic diseases](#) such as diabetes as well as death. However, we did not know that taking waist and hip circumference into account separately (as opposed to using the waist-to-hip ratio*) would reveal such a powerful association between obesity and [mortality](#)," said lead author of the study, Dr Adrian Cameron from Deakin University.

"In other words, a person with big hips and a small waist is at the lowest end of the risk scale and people with small hips and a large waist are at the highest risk.

"By accounting for the protective effect of hip circumference, we are able to isolate the negative [health risks](#) of central (abdominal) obesity which is measured by the [waist circumference](#). It appears that this form of obesity is more dangerous than we ever thought, particularly in this South Asian population," concurred Associate Professor Stefan Söderberg from Umeå University, Sweden.

"I think we all need to realise that the waist circumference is only half the story when it comes to obesity. Hip circumference is clearly just as important and when we consider them both, that's when we see just how dangerous obesity really is," concluded Professor Paul Zimmet, Director Emeritus and Director International Research at Baker IDI. Prof. Zimmet initiated the study in Mauritius almost 25 years ago.

More information: ije.oxfordjournals.org/

Provided by Deakin University

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