

BMI an inconsistent measure of obesity for Maori and Pacific people

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BMI (body mass index) is likely to be an inconsistent measure of obesity in Māori and Pacific patients, new University of Otago research reveals.

Specifically, researchers from HeartOtago—a group of cardiovascular researchers and clinicians located at the University and Dunedin Hospital—have looked at epicardial adipose tissue (EAT), a special form

of fat surrounding the [heart](#) which has been linked to increased risk of heart attacks and disturbances in heart rhythm.

In their study published today in the *New Zealand Medical Journal*, they used echocardiography (ultrasound of the heart) to measure EAT in patients scheduled for open heart surgery. They compared the association between BMI as a measure of [obesity](#) and EAT in New Zealand Europeans and in Māori and Pacific people.

Lead researcher Dr. Sean Coffey says BMI was associated with EAT thickness in Europeans, but not in Māori or Pacific patients.

"Our results showed that using BMI as a measure of obesity is unlikely to be accurate in Māori and Pacific patients as a way to predict EAT."

Māori and Pacific patients in the study were overall younger than the New Zealand Europeans, had higher BMI and a greater prevalence of type 2 diabetes (often associated with obesity).

The researchers demonstrated a moderate, significant association between EAT thickness and BMI in New Zealand Europeans that was not significant among Māori and Pacific people.

"The use of BMI as an indicator for cardiovascular disease risk among Māori and Pacific people may be misleading and contribute to the disparate outcomes among these populations," Dr. Coffey explains.

"The same level of BMI can carry different connotations of risk in different ethnic groups, with BMI likely being an inconsistent measure of obesity in Māori and Pacific patients."

Dr. Coffey says the findings also build on previously reported differences in body composition between Māori and Pacific people in

New Zealand and New Zealand Europeans.

More information: *New Zealand Medical Journal:*
www.nzma.org.nz/journal

Provided by University of Otago

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