

# Research shows possible link between number of fast-food outlets and heart attacks

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Assorted fast-food products. Credit: Hunter Medical Research Institute

Researchers from the Hunter Medical Research Institute (HMRI), the University of Newcastle and Hunter New England Health (HNE Health) have found that for each new fast-food outlet the number of heart attacks per 100,000 people went up by four.

Published in the latest edition of the *Internal Medicine Journal* the study aimed to determine whether the number of [fast-food](#) outlets in an area could be considered an environmental risk factor for Myocardial Infarction ([heart attack](#)).

The team led by Dr. Tarunpreet Saluja from the University of Newcastle, compared all cases of Myocardial Infarction within the Hunter-New England Health District with the Fast-Food Outlet Density (FFD) of each Local Government Area within the district.

"Heart attack is one of the leading causes of death worldwide" said Dr. Saluja, "However, recent data suggests that an increasing number of heart

attacks cannot be explained by known risk factors."

"There is a well-established link between fast food consumption and cardiovascular diseases such as heart attack. This highlights the need to explore the role of food availability in the probability of having a heart attack."

The team found that FFD was positively correlated with an increase of [myocardial infarction](#), even after accounting for other factors such as age, obesity, hyperlipidaemia (high cholesterol), hypertension (high blood pressure), smoking status, diabetes, and socioeconomic status.

Study co-author and cardiologist at John Hunter Hospital, Professor Andrew Boyle said that while it has been known for some time that consuming fast food was bad for the heart no one had determined whether the number of stores was itself a predicting factor.

"Until now there has been very little data on the link between [fast-food](#) outlet density and heart attacks, so these results should provide an important consideration for future public health policy and community development," said Professor Boyle.

Study co-author and Associate Director of HMRI's Data Science Group, Dr. Christopher Oldmeadow, said that developing a new metric to calculate fast-food outlet density was key to the study and there was scope to expand the data to look at more outlets in the future.

"For this study, we focused on the 10 most popular fast-food outlets in Australia and used census data to determine the density per 100,000 people in each local government area," Dr. Oldmeadow said. "This worked for the majority of the LGAs, but there is scope to investigate the relationship between

smaller, locally operated fast-food outlets and [heart attacks](#)."

**More information:** Saluja, T., Davies, A., Oldmeadow, C. and Boyle, A.J. (2021), Impact of fast-food outlet density on incidence of myocardial infarction in the Hunter region. *Intern Med J*, 51: 243-248. [doi.org/10.1111/imj.14745](https://doi.org/10.1111/imj.14745)

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