

# Large weight gain, loss linked to early death

Trend identified in study of Chinese S'poreans

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Significant weight gain or loss among middle-aged and elderly Chinese Singaporeans can increase their risk of an early death, especially from cardiovascular diseases, a study has found.

Led by Professor Koh Woon Puay of Duke-NUS Medical School and the National University of Singapore's Saw Swee Hock School of Public Health, a team of researchers from Duke-NUS Medical School discovered that Chinese Singaporeans aged 45 to 74 who experienced weight loss of 10 per cent or more over a period of about six years were found to have a 39 per cent higher risk of death from all causes compared with those who maintained their weight.

A large weight gain of 10 per cent or more was associated with a smaller but significant 13 per cent increased risk of death.

This was about the same as the risk increase associated with a smaller weight loss of between 5 and 10 per cent.

A small weight gain was not associated with a greater risk of death, indicating that gaining a little weight as one ages may not be harmful.

In some cases, a small weight gain was even found to indicate a lower risk of death, a phenomenon referred to as the obesity paradox in the elderly.

However, for those considered overweight with a body mass index (BMI) higher than 23, a small weight loss did not increase their risk of dying.

Prof Koh, the principal investigator of the study, said excessive weight loss, especially among the elderly, could indi-

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– Prof Koh Woon Puay, principal investigator of the study

cate that they are losing muscle mass because of malnutrition or poor control of chronic diseases rather than shedding fat through exercise.

As part of the Singapore Chinese Health Study, researchers collected the height and weight data of about 63,000 Chinese Singaporeans between 1993 and 1998.

About six years after they were first surveyed, a follow-up survey was conducted to measure their weight gain or loss.

Those who had been diagnosed with cancer, heart disease or stroke at this point were then excluded from the study as the researchers wanted to track those who were relatively healthy.

About 36,000 people were then surveyed again in 2016. Of this number, about 7,500 deaths and their causes were collected from the National Death Registry.

Out of those surveyed, the top causes of death were cancer and cardiovascular diseases, consistent with national averages.



A weight gain of 10 per cent or more was associated with 13 per cent increased risk of death. TNP PHOTO: GAVIN FOO

Over a third died from cancer while 16.7 per cent died from heart disease and 8 per cent died from strokes.

Although the survey observed only Chinese Singaporeans, Prof Koh said the trends would be largely applicable to people of all races.

“Our findings were consistent with those of studies done in Western societies as well as some conducted among Japanese and Korean populations,” said Prof Koh during a media briefing yesterday at Duke-NUS.

The researchers cautioned that more research is needed to better understand the underlying associations between weight change and mortality.

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