

Big weight gain and loss linked with higher risk of early death: S'pore study

Findings involve middle-aged and elderly Chinese S'poreans in study by Duke-NUS Medical School team

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Significant weight gain or loss among middle-aged and elderly Chinese Singaporeans is linked with an increase in 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 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 small weight loss of between 5 and 10 per cent.

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

Similar patterns were found across the age range for both men and women of all body weights.

The study did not ask participants whether their weight changes were planned, but Prof Koh said excessive weight loss, especially among the elderly, could indicate that they are losing muscle mass because of malnutrition or

poor control of chronic diseases.

She added that those who lose weight gradually through exercise need not worry as they are more likely to be shedding harmful fats and maintaining their muscle mass.

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.

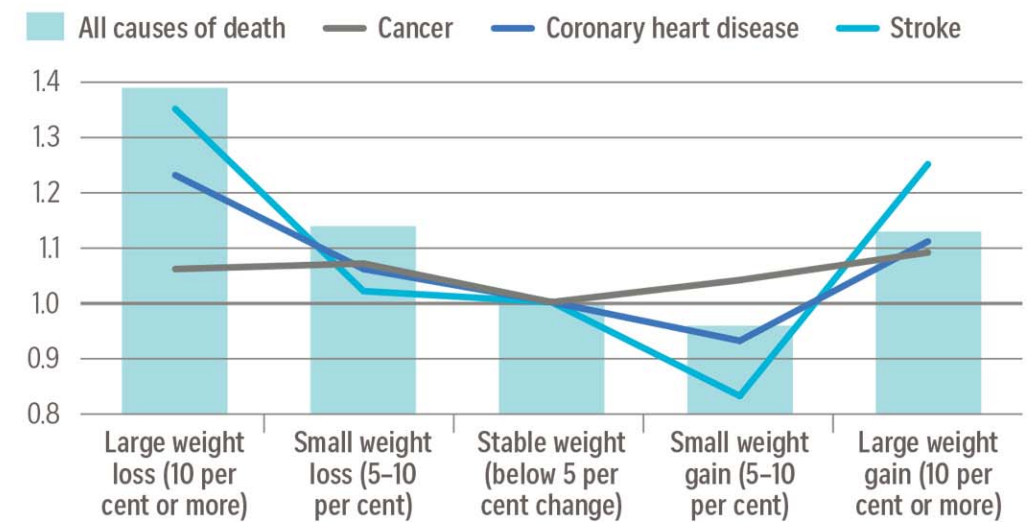
About six years after they were first surveyed, a follow-up survey was conducted to measure their weight gain or loss.

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

Weight changes and mortality risk among Chinese Singaporeans



Source: SINGAPORE CHINESE HEALTH STUDY STRAITS TIMES GRAPHICS

per cent died from strokes.

Weight changes did not affect the rate of cancer deaths significantly.

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,” she said during a media briefing yesterday.

The study also found that women were more likely to gain weight than men, while older people were more likely to lose weight than younger people.

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

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39%

Increase in risk of death for Chinese Singaporeans aged 45 to 74 who experienced weight loss of 10 per cent or more over a period of six years, compared with those who maintained their weight.

13%

Increase in risk of death for Chinese Singaporeans aged 45 to 74 who experienced weight gain of 10 per cent or more over a period of six years, compared with those who maintained their weight.