

'Obese' BMI does not harm current health of young adults, study says

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A study examining the relationship between body mass index (BMI) and illness suggests that a BMI of 30 or above, a signal of obesity according to federal health standards, does not translate into current illness among adults under age 40.

In addition, researchers found that across all age groups studied, from 25 to 70 years, there was little difference in the current health status in normal-weight vs. overweight people based on the medications they took.

[Body mass index](#) is a common health measure of weight relative to height. According to the National Heart, Lung and Blood Institute, a [BMI](#) between 18.5 and 24.9 indicates normal weight and a BMI between 25 and 29.9 falls into the overweight range. A BMI of 30 or higher indicates [obesity](#).

The researchers acknowledge that health problems in [older adults](#) with BMIs of 30 or higher might be traced back to carrying extra weight in young adulthood. Among people age 40 or older, use of medication was significantly higher among adults considered to be obese compared to adults with a normal weight.

However, the large population study suggested that people with a BMI in the overweight range are generally not at a higher risk for current health problems compared to people of normal weight, regardless of age.

"A lot of people make a big deal about those overweight BMIs, but we didn't see a difference between overweight and normal-weight adults across all age groups in the percentage of people medicated, or in the number of medications taken," said Brant Jarrett, lead author of the study and a doctoral student in neuroscience at Ohio State University.

"For college-age adults, this should help them realize that they don't have to worry so much if they have a BMI of 27 or 28. Some young people with these BMIs feel like, 'I'm going to have all these problems, I need to try 50 different diets.' And what is all that stress and dieting doing to your body? Probably more damage than the extra 15 pounds is," Jarrett said.

The study also upholds previous findings that more women than men take medication, but does not indicate why that is. Interestingly, that gender difference disappears in adults age 55 and older.

Jarrett conducted the research with colleagues while he was a graduate student at Brigham Young University. The work is published in a recent issue of the *International Journal of Obesity*.

Jarrett noticed during his studies on stress that many people, especially college students, said being overweight was one of their main stressors.

"We wanted to see at what point being overweight is a real physical stressor instead of a psychological stressor. Most studies on BMI look at risk factors, which do not assess current health. That's health risk. So we wanted to see if a higher BMI is associated with current physical health problems," he said.

Health experts say that people with BMIs in the overweight or obese range have a higher risk for developing Type 2 diabetes, high blood pressure and cardiovascular disease than do individuals in a normal

weight range.

The researchers collected data from National Health and Nutrition Examination Survey U.S. adult population databases covering three time periods: 1988-94, 2003-04 and 2005-06. They collected data on BMI, age, gender and current medication use among 9,071 women and 8,880 men, separating them into three age groups: 25 to 39, 40 to 54 and 55 to 70. Adults with a BMI below 19.5 were excluded.

To identify the levels of illness among these populations, Jarrett and colleagues examined the use of prescribed medications. Before collecting the data, they analyzed hundreds of drugs on the market, ruling out medications typically used to treat mental health disorders as well as drugs used to treat conditions that are not associated with physical illness.

"We had access to information on specifically what people were taking, how many people were taking these medications and the reason they were taking them" Jarrett said.

"We then used these doctors' reports of prescribed medication use as an estimate for illness burden based on the assumption that these drugs represented diagnosed illnesses or symptoms considered by doctors serious enough to warrant treatment."

Across the board, BMI levels and the percentage of adults taking medication increased from the 1988-94 to the 2003-06 time frame, reinforcing public health concerns about a growing incidence of obesity in the United States, Jarrett noted.

Both the percentage of people taking medications and the number of medications taken also increased from the 1988-94 period to the 2003-06 period, but only among people age 40 to 70, and not in the

younger age group.

After applying a number of statistical tests to the data, the researchers found that among all age groups, with few exceptions, there was no significant difference in the severity of illness between those with normal weight and overweight BMIs. There was a slight increase in the percentage of medication use among men age 40 to 70 with overweight BMIs when compared to men of normal weight.

"Thus, having a BMI in the overweight range, by itself, was not generally associated with an increased medication load," Jarrett said.

In addition, a higher BMI had less of an impact on medication use in younger people than it did in the two older age groups - a sign to the researchers that the age of onset of a high BMI should factor into assessments of health risk, especially in young people.

Jarrett said the emphasis on BMI can have damaging psychological effects on young people who, this study suggests, typically do not have health problems related to their weight. Though the BMI is convenient, it doesn't take into account different body types or gender differences; a measure of body fat percentage would offer a more accurate picture of risks associated with an individual's weight, he said.

"I think that the effects of BMI on health have more to do with the stress effects on health than the weight-related effects on health, especially in those with a BMI of 25 to 30," he said. "At a young age you're fine, health-wise, even with a high BMI, but who worries most about BMI? Young people. It's something they think about every single day, every time they put on their clothes and every time they look in the mirror."

On the other hand, obesity was associated with a significant increase in medication use among adults age 40 to 70. For example, almost 70

percent of obese women age 40 to 54 were taking medication in the later time frame, compared to about 57 percent of women with a normal weight. Among men of the same [age](#) in the same time frame, medication use was 61 percent and 39 percent, respectively.

These figures also speak to the higher percentage of women than men taking medication and taking more medicines than men, a trend seen in this study as well as previous research. Scientists can only theorize about why this is, Jarrett noted.

As for the overall increased medication use among older adults in the more recent group (2003-2006), Jarrett suggested that this trend could relate to an increase in illness associated with the overall increase in BMI over time or could be attributed to more aggressive physician approaches to treatments that accompany advances in technology.

Provided by The Ohio State University

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