

Even small weight gains raise blood pressure in college students

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As a college student, you may be happy simply not to have gained the "Freshman 15." But a University of Illinois study shows that as little as 1.5 pounds per year is enough to raise blood pressure in that age group, and the effect was worse for young women.

"In our study, a small weight gain was enough to raise a college student's [systolic blood pressure](#) by 3 to 5 points. If young people continue to gain 1.5 pounds a year and think it doesn't matter, they're misleading themselves and increasing their risk for heart disease," said Margarita Teran-Garcia, a U of I professor of [food science](#) and [human nutrition](#).

Data were collected from 795 18- to 20-year-old applicants to the Universidad Autonoma de San Luis Potosi in Mexico who weren't accepted to the university but reapplied the next year. The study assessed changes in BMI and [body weight](#) over one year and explored whether the applicants experienced changes in blood pressure and [blood glucose levels](#).

One-year changes in body weight were associated with increased blood pressure for both men and women. In the 25 percent of applicants who had a weight gain of 5 percent or more, that gain was associated with higher blood pressure. The changes were more significant for women than for men, she said.

"The good news is that the reverse was also true. Women who lost 5 percent of their body weight saw reductions in their blood pressure," she

said.

The harmful effects of weight gain may be especially pronounced among Mexicans, a group that develops [heart disease risk](#) factors at much younger ages and at lower BMIs than comparable groups in the United States. Almost 31 percent of Mexican adults have hypertension, ranging from 13 percent of adults in their twenties to 60 percent of [adults age 60](#) and over, she said.

"We'd like to learn how much [high blood pressure](#) is caused by genetics and how much is lifestyle related and propose interventions for persons of Mexican descent in the United States who have a family history of hypertension and heart disease," she said.

Teran-Garcia worries that doctors don't take [weight gain](#) and small increases in blood pressure seriously enough in this age group.

"There are very few programs that make college-age people aware of the health problems associated with even small weight gains and encourage them to make lifestyle changes to combat it. Physical activity is important, and many young adults are not getting the recommended 30 minutes to 1 hour a day of exercise," she said.

She added that 18- to 20-year-olds are at the perfect age for intervention and education. "If we can convince these young people that small changes add up to bigger changes and health problems that could be prevented over time, the chronic diseases associated with obesity may never develop," she said.

The study is part of the Up Amigos project, a collaboration between scientists at the U of I and the Universidad Autonoma de San Luis Potosi. The researchers are following the 10,000 yearly applicants to the Mexican university to learn how changes in BMI and weight affect the

students' health over time.

The article, One-year follow-up changes in weight are associated with changes in [blood pressure](#) in young Mexican adults, was published in a recent issue of *Public Health*. Co-authors are F.C.D. Andrade, I Vasquez-Vidal, and T. Flood of the U of I and C. Aradillas-Garcia, J.M. Vargas-Morales, and E. Medina-Cerda of the Universidad Autonoma de San Luis Potosi, Mexico.

Provided by University of Illinois at Urbana-Champaign

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