

Changes in abdominal obesity in Chilean university students stratified by body mass index

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Background: Studies based on Body Mass Index (BMI) and waist circumference (WC) are generally used to examine the prevalence and tendency of overweight and obesity. These studies help determine the socioeconomic development of a country and improve public health policies.

Therefore, the goal of this research was to determine the trend of change in abdominal obesity of Chilean university students according to the Body Mass Index (BMI) measured in intervals of three and six years. **Methods:** For this study, a total of 1598 students of both sexes ranging in age from 18 to 26 from a Chilean university were evaluated. Students were assessed commencing in 2007 (372 males and 315 females), 2010 (250 males and 330 females), and ending in 2013 (153 males and 178 females). During the three transversal assessments, weight, height, and waist circumference were evaluated. BMI was calculated for both sexes. **Results:** No significant differences were found in age and BMI during the three years evaluated (2007, 2010, and 2013). In 2013, waist circumference (WC) increased significantly ($p < 0.001$ for both sexes). Moreover, in 2013, in all the percentiles evaluated, high values of WC were compared in relation to previous years. Furthermore, in 2013, in all four BMI categories (underweight, normal, overweight, and obese), the university students showed significant increases in WC (Females: $p = 0.004$; Males: $p = 0.035$) whereas in 2007 and 2010, the values remained relatively stable. **Conclusions:** BMI remained constant during 2007, 2010, and 2013. However, the university students of both sexes showed greater risk of abdominal obesity as a result of increased WC in 2013. © 2016 Cossio-Bolaños et al.