

The Freshman 15: Comparing Change in Weight of Male and Female Student Athletes during the First Year of College

Klein, NE and Smith, JC

Human Performance Laboratory; Department of Kinesiology; Southwestern University; Georgetown, TX

Category: Undergraduate

Advisor / Mentor: Smith, Jimmy (smithj@southwestern.edu)

ABSTRACT

Introduction: Before entering college many students are warned about the “Freshman 15” or the notion that students gain 15 lbs of body weight during their first year of college. Previous studies have shown that though students do gain weight during their first year in college, the gain is less than the fabled 15 lbs. However, less is known about first year weight gain in college athletes. **Purpose:** This study was done to determine whether male and female student athletes at a small private university gained weight during their first year of college and how much body weight changed during that time. **Methods:** Weight of male ($n = 132$) and female ($n = 73$) athletes competing in various intercollegiate sports were measured by the University Athletic Training Staff as first year students in 2013 and as second year students in 2014. A mixed model repeated measures ANOVA was conducted on the paired weight data for male and female athletes. An independent t test was also used to compare percent change in weight for men and women. **Results:** The change in the average (sd) weight of men and women was 6.0 lbs (8.74) and 4.0 lbs (8.08), respectively. The mixed model repeated measures ANOVA indicated that there were significant effects of time ($F = 65.331$; $p < 0.001$) and sex ($F = 78.213$; $p < 0.001$) on weight, but no interaction was shown to occur between time and sex ($F = 2.623$; $p = 0.107$). Time (year) accounted for about 24.3% of the difference in weight between 2013 and 2014 ($\eta^2 = 0.243$), while sex accounted for about 27.8% of the difference in weight between men and women ($\eta^2 = 0.278$). The mean (sd) percent changes in weight of men and women were 3.52% (4.79) and 2.97% (5.70), respectively. The results of the independent t test indicated that there was no significant difference ($t_{(203)} = 0.743$; $p = 0.458$) in the percent changes in weight. **Conclusion:** Both men and women gained weight during their first year as college student athletes, but neither gained the mythical 15 lbs. The amount of weight gain found in student athletes was consistent with weight gain reported in previous studies for non-athletic populations. In addition, weight gain relative to initial body weight was not different between male and female athletes. These results do not indicate whether weight gained was healthy or unhealthy, but do indicate that college athletes experience increases in weight during their first year.

