

The Effect of Backward Running on Hamstring Flexibility in College Football Athletes

CEDRIC WHITAKER and ERIKA DEIKE

Kinesiology Department; Texas Lutheran University; Seguin, TX

Category: Undergraduate

Advisor / Mentor: Deike, Erika (edeike@tlu.edu)

ABSTRACT

The purpose of this study was to test if an acute backwards running regimen could increase hamstring flexibility in college football players. Twenty healthy in-season Division 3 football players, with no history of hamstring injury, were recruited for this study. After a warm-up, a sit and reach pre-test was used to measure hamstring flexibility. Subjects were then randomly assigned into a control or experimental group. The experimental group underwent a 3 week intervention, which consisted of three 40 yard backward sprints on 2 nonconsecutive days, for 3 weeks. Following the 3 weeks, all subjects performed a sit and reach posttest and data was collected. Data was analyzed using Microsoft Excel. An independent t-test showed a statically significant difference in hamstring flexibility between groups ($p=0.01$). With the experimental group having a mean increase of 0.75cm in hamstring flexibility, while the control group only had an increase of only 0.14cm. These findings are important for coaches, personal trainers and athletes, or anyone who wants to increase hamstring flexibility. It could possibly provide an athletic advantage or help to reduce the chance of injury. Outside of sports, this study could be import for those who want to achieve the health benefits that come along with having more flexible hamstrings.