

Comparative Oral Non-Steroidal Anti-Inflammatory Drug (NSAID) Use in DIII Collegiate Athletes

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Non-steroidal anti-inflammatory drugs (NSAIDs) have a ubiquitous influence globally because these drugs are pain relieving, anti-inflammatory, and accessible over the counter. The mechanism of action of NSAIDs involves the non-selective inhibition of the cyclooxygenase (COX-1 and COX-2) isoenzyme. The COX-1 isoenzyme plays a physiological role in maintaining the gastrointestinal mucosa lining, platelet aggregation, and kidney function. Therefore, the inhibition of this enzyme leads to adverse health risks. Widespread misuse and misinformation have led to health complications such as gastric bleeding, high blood pressure, and stroke. Previous research indicates alarming risks and health complications from the overuse of NSAIDs in many demographics. Among the populations at risk are college athletes. Collegiate athletes that take higher than recommended doses of NSAIDs are at a greater risk of experiencing potentially serious complications from adverse effects of NSAID action. Previous studies



concluded that 50% of athletes use NSAIDs and identified patterns of repeated use while in season and a positive correlation between higher pain incidence and NSAID misuse within the athletic population. This study specifically aims to differentiate NSAID use within each specific sport, identifying prevalence of NSAID use within individual DIII collegiate sports and analyzing the athletes' knowledge regarding the health risks associated with chronic NSAID overuse. It is hypothesized that: (1) individuals with less knowledge about health risks are more likely to overuse NSAIDs; and (2) sport(s) and athletes with the highest reported pain incidence are more likely to use and overuse NSAIDs. To test these hypotheses, an anonymous Qualtrics survey will be distributed via email to collect relevant data. Survey distribution will occur using collaboration with coaches and the athletic department. Participants are Alma College athletes, age 18-23 who have participated in at least one varsity game or competition. Results will show cross-sectional relationships relevant to NSAID use in Alma College athletes.

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