

**METHODS:** This is a prospective epidemiology study using the Rugby Injury Survey & Evaluation (R/ISE) Report methodology to capture injury rates (per 1000 player-hour (ph)). USA Sevens Collegiate Rugby-7s Championship Invitational (1786 athletes) over 2012, 2014-2016 competitive divisions (championships men and women, men's collegiate, and men's small colleges) were evaluated for match injuries.

**RESULTS:** Injuries overall were found at 139.4/1000ph (n=151) (time-loss 31.4/1000ph, n=34; medical attention 108.0/1000ph, n=130; <0.001). Backs (38.9/1000ph) had higher rates of time-loss injuries than forwards (17.3/1000ph; RR: 2.2, P=0.040). Mean severity of injuries were 75.7 days (backs 63.7 days; forwards 127.5 days; P=0.078). Injuries overall were acute (87%) and occurred during the tackle (72%) and running/open play (17% overall; from 13% in 2012, 22% in 2014, 43% in 2015, 9% in 2016). Shoulder tackles led to more injuries than other tackle types (65%; RR: 1.9). Recurrent injuries were observed at 29% of all injuries (39.8/1000ph). Most common time-loss injuries were concussions (26%) and lower extremity ligament injuries (50%). Overall head/neck injuries occurred at high proportions (29%; RR: 2.62), including concussions at 12% of all injuries (16.7/1000ph; RR: 1.3 P=0.148).

**CONCLUSIONS:** One concern with the expansion of U.S. Rugby-7s was the increasing risk of head and neck injuries in collegiate Rugby-7s between 2012 and 2014, 2015 and 2016 (RR: 2.17, 4.7, 3.3, respectively). Elevated head/neck injury rates in the current study have been found to be higher than the literature in international elite males Rugby-7s (5%) and U-20 Rugby-15s (12%). The largest injury increase was seen in running/open play, possibly due to the variability of training regimens among programs. Developing institutional support as other collegiate sanctioned sports can help guide instruction on tackling, and a standardized conditioning program, which may decrease injury rates at the collegiate playing level.

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1506 Board #181 June 1 8:00 AM - 9:30 AM

**Statin Use Predicts Fall Risk Among Older Adults**

Jessica M. Lopez<sup>1</sup>, Lewis E. Jacobson<sup>2</sup>, Kathy L. Leslie<sup>2</sup>, Jonathan M. Saxe<sup>2</sup>, Courtney D. Jensen<sup>1</sup>. <sup>1</sup>University of the Pacific, Stockton, CA. <sup>2</sup>St. Vincent Hospital, Indianapolis, IN.

Email: j\_lopez9@u.pacific.edu

(No relationships reported)

In the United States, 30–60% of older adults fall each year; 10–20% of these falls result in injury, hospitalization, or death. Better prevention of falls in this population may be facilitated by broader identification of risk factors. The use of statins has emerged as a potential risk factor, but the data are conflicted.

**PURPOSE:** To examine the relationship between statin use and falls among community-dwelling older adults.

**METHODS:** We evaluated the patient registry of a Level 1 trauma center. All patients aged ≥65 years who were admitted in the Emergency Room (and discharged to home) for falls in 2015 were included (n=615). Many of these patients had been previously admitted for falls and many were later readmitted for falls. We analyzed predictors of both prior admission and readmission with linear regressions. Independent variables were self-reported balance problems, diagnosis of dementia, and the use of statins.

**RESULTS:** On average, patients admitted for falls were 79.9 ± 9.3 years old and 28% (n=173) were taking statins. Our collection of predictors explained 14.2% of the variance in the number of previous admissions for falls (p<0.001). Among this population, the use of statins predicted more previous admissions for fall-related injuries (95% CI: 0.07–0.50, p=0.010). This same model maintained its significance when predicting admissions for future falls (p<0.001) and the use of statins continued to predict a greater number of readmissions (95% CI: 0.04–0.36, p=0.015).

**CONCLUSION:** More than 25% of all Americans age ≥40 years are taking cholesterol-lowering medication; 93% of those medications are statins. Although evidence is conflicted, our data support the finding that statin therapy increases the risk of falls in older adults. Exercise may function as a prophylactic measure, enhancing lipid profiles and decreasing the need for statins while also improving balance, coordination, and mobility, reducing the risk of fall-related injuries.

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1507 Board #182 June 1 8:00 AM - 9:30 AM

**Age at First Energy Drink Use As a Predictor of College Student High-Risk Driving Behaviors**

Conrad L. Woolsey<sup>1</sup>, Jeff M. Housman<sup>2</sup>, Ronald D. Williams, Jr.<sup>2</sup>, Bert H. Jacobson, FACSM<sup>3</sup>, Thomas E. Sather<sup>4</sup>, Marion W. Evans, Jr.<sup>5</sup>.

<sup>1</sup>University of Western States, Portland, OR. <sup>2</sup>Texas State University, San Marcos, TX. <sup>3</sup>Oklahoma State University, Stillwater, OK. <sup>4</sup>Bureau of Medicine and Surgery, Falls Church, VA. <sup>5</sup>Mississippi State University, Mississippi State, MS. (Sponsor: Dr. Bert H Jacobson, FACSM)

(No relationships reported)

Age at first use has been studied extensively as a predictor for issues with substances, but remains relatively unexplored in energy drinks.

**PURPOSE:** To examine the relationship of age at first energy drink use and high-risk motor vehicle driving behaviors among college students (n=552).

**METHODS:** Age at first energy drink use was measured using a standard continuous scale self-reported question. Logistic and bivariate regressions were used to examine the relationship of age at first energy drink use to past 30-day alcohol-related high-risk driving behaviors. Participants responded to the following: 1) I have driven a motor vehicle when I knew I was over the .08 blood alcohol concentration (BAC) driving limit; 2) I have driven a car when I knew I had too much alcohol to drink to drive safely; 3) I have been a passenger when I knew the driver had consumed too much alcohol to drive safely.

**RESULTS:** Age at first energy drink use was inversely proportionate to each risky driving behavior measured. The odds of engaging in driving while over the .08 BAC limit decreased by 10.8% (OR=.89; p=.002) as age at first energy drink use increased by one year; Participants odds of driving when perceiving they had consumed too much to alcohol to drive safely decreased by 8.4% (OR=.92; p=.009) as age at first energy drink use increased by one year. The odds of being a passenger in a car with a driver who had consumed too much alcohol to drive safely decreased by 11.9% (OR=.88; p=.000) as age at first use increased by one year. Age at first energy drink use was a significant predictor of past 30-day risky driving behaviors including driving when one perceives they have consumed too much alcohol to drive safely (B=-.041; p=.036; R<sup>2</sup>=.008), and driving while perceiving a BAC over .08 (B=-.10; p=.001; R<sup>2</sup>=.009).

**CONCLUSION:** Results suggested using energy drinks at an earlier age predicted high-risk motor vehicle behaviors including driving after consuming too much alcohol, driving over the .08 BAC limit, and knowingly riding with a driver who had consumed too much alcohol to drive safely.

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1508 Board #183 June 1 8:00 AM - 9:30 AM

**A Comparison of Injury Rates In Boys' And Girls' Youth Lacrosse**

Shane V. Caswell<sup>1</sup>, Andrew Lincoln<sup>2</sup>, Thomas Dompier<sup>3</sup>, Zachary Kerr<sup>4</sup>. <sup>1</sup>George Mason University, Manassas, VA. <sup>2</sup>MedStar Sports Medicine, Baltimore, MD. <sup>3</sup>Datalys Center for Sports Injury Research and Prevention, Inc., Indianapolis, IN. <sup>4</sup>University of North Carolina, Chapel Hill, NC.

Email: scaswell@gmu.edu

(No relationships reported)

Participation in youth lacrosse is increasing. To date, limited research has compared the incidence and severity of injuries among boys' and girls' youth lacrosse players.

**PURPOSE:** Compare the incidence and severity of injury in boys' and girls' youth lacrosse.

**METHODS:** Athletic trainers (ATs) attended games and practices during the 2015 and 2016 seasons for 12 youth lacrosse leagues in four states with 1090 male and 408 female players. ATs collected injury and athlete-exposure (AE) data at all events. Injuries occurring during league events and requiring medical attention were included. Time loss (TL) injuries were those resulting in participation restriction ≥24 hours. Injury frequencies and rates were calculated. Rate ratios (RR) compared rates by sex. RRs with 95% confidence intervals (CI) not including 1.00 were considered statistically significant.