runners), implying a decreased efficacy in jumpers and increased in runners.

Conclusions Throughout season neuromuscular adaptations occurred accordingly with sports gestures and this might explain the different results found between groups. Fatigue can be an important factor to explain the decrease of performance of runners. Sports with consecutive jumps may be related with the reduction of asymmetry, what does not happen between runners.

Background Aesthetic sports require athletes to showcase extreme flexibility, aerial maneuvers and perform hard surface landings that may increase injury risk. However, very few studies have examined injury risk in this population.

Objectives To identify aesthetic sport injury prevalence among high school students and to describe the type, location and severity of injury in adolescents who practice aesthetic sports.

Design Cross-sectional study.

Setting High schools in Calgary area, Canada.

Participants Adolescent students (n=2029; 958 male, 1048 female, 23 identified ‘other’; ages 14–19 year) from 24 high schools.

Assessment of Risk Factors Self-reported participation in aesthetic sport (i.e., gymnastics, dance, figure skating) in previous one-year (based on top three sports for participation).

Main Outcome Measurements Self-reported injury (time loss/medical attention), type, anatomical location, and severity. Proportions [95% confidence intervals (CI)] were adjusted for cluster by school.

Results Among the 2029 students who completed the question about sport participation, 15% (302/2029) participated in aesthetic sports (282 female, 20 male; dance (247/302; 82%), gymnastics (50/302; 16%), figure skating (22/302; 7%). In the previous one-year, 74 females (26.2%; 95% CI, 20.8–32.6) and 2 males (10.0%; 95% CI, 2.6–31.2) listed aesthetic sport injury as the most severe. Ankle (26.3%); 95% CI, 17.5–37.6), knee (25.0%; 95% CI, 16.4–36.2), and back (9.2%; 95% CI 4.4–18.4) were the most common injury sites. Ligament sprains (22.7%; 95% CI 14.4–33.7), muscle strains (14.7%; 95% CI 8.2–24.9), and fractured bones (12.0%; 95% CI 6.3–21.8) were most common injury types. Medical attention injury rate was 20.5/100 athletes/year and time-loss >7 days injury rate was 11.9/100 athletes/year.

Conclusions Aesthetic sport participation and injury rates among high school students are high. The most serious injuries reported were lower extremity injuries with a greater proportion of females reporting aesthetic sport injuries than males. Future research should focus on mitigation of lower extremity injuries among these high-risk aesthetic athletes.