

Abby Ruppert

HONOURS RESEARCH



Research Focus:

Abby's honours research focuses on neck muscle strength in rugby athletes and how this impacts their ability to stabilize their head during unexpected tackles. With the aggressive player-player contact encountered in rugby, concussions are a high risk. Whiplash-type scenarios are a common mechanism for concussion, with the neck musculature becoming important in mitigating subsequent head movements. In theory, a strong neck creates a rigid segment that will be less susceptible to high accelerations. Commonly, female athletes display weaker necks, greater head acceleration, and higher concussion risk. The main objective of her study is to investigate any sex differences in neck muscle strength, activation characteristics, and head movement in rugby players. By using clinical tests of the neck musculature, coupled with a simulation of the landing portion following a rugby tackle, her study will compare techniques used by both sexes in the event of unanticipated contact. Findings from this work will provide insight for future concussion prevention protocols.

About Abby:

Abby Ruppert is a Kinesiology student from Collingwood, Ontario. During her time at Acadia, she has been involved as a volunteer with the SMILE program, a coordinator for the Acadia Wolfville Active Kids Exercise (AWAKE) program, and as a SIAM student therapist with the Women's Rugby and Hockey teams.



Through her research and other experiences at Acadia, she has grown a love for the healthcare field and helping others stay involved in the things they love. Following graduation, Abby hopes to continue her education in order to pursue a career within healthcare.

Supervisor: Dr. Lauren Lattimer