



## CURRICULUM VITÆ

### DOMINIQUE CAVA

**“Dr. Dominique Cava is an accomplished researcher and expert in the field of biomechanics and neuromusculoskeletal modelling with an impressive educational background, including a Ph.D. in Rehabilitation Sciences in the field of Physical Therapy with a specialization in Musculoskeletal Health Research from Western University. Throughout her Ph.D. studies, Dominique has conducted research in areas such as orthopaedics biomechanics, surgical interventions, movement analysis, and rehabilitation with the use of ground breaking computational modelling techniques.”**

Ph.D. Rehabilitation Sciences in the Field of Physical Therapy with a  
Specialization in Musculoskeletal Health Research  
M.Sc.Kinesiology  
B.S. Kinesiology

## **1. INJURY BIOMECHANICS EXPERT**

- Lead Expert Injury Biomechanics in consulting and advisory services.
- Preliminary Injury Biomechanics Assessments – Identify the strengths and weaknesses of evidence and expert opinions.
- Injury Biomechanics Examinations – Support to Transportation, Product and Premise groups.
- Injury Biomechanics Accident and Injury Analysis.
- Injury Biomechanics Reconstructions.
- Injury Biomechanics Expert Reports on findings.
- Trial Testimony [when required]

## **2. BIOGRAPHY**

Dr. Dominique Cava is an expert researcher in the field of Orthopaedic Biomechanics. She completed her Ph.D. in Orthopaedic Biomechanics from the Department of Rehabilitation Sciences at Western University from 2019 to 2023. Within this degree, she had the unique opportunity to specialize in musculoskeletal health research in a transdisciplinary collaborative program. Prior to her doctorate, she obtained her M.Sc. in Biomechanics from the School of Kinesiology at Lakehead University and her H.B.K. in Kinesiology from Lakehead University as well.

Dr. Cava has been involved in transdisciplinary research throughout her academic career where she was most recently co-mentored by biomechanists with backgrounds in Physical therapy and Mechanical Engineering. She currently serves as an Injury Biomechanics Expert at LISKE Accident & Injury Experts as of January 2024. Her main focus lies in conducting research related to movement biomechanics and musculoskeletal and neuromusculoskeletal modelling of the lower extremity in athletes and pathological populations to enhance injury rehabilitation.

Dr. Cava's doctoral dissertation (2019 to 2023) focused on evaluating a change in knee joint contact forces in patients with knee osteoarthritis before and after the limb realignment surgery High Tibial Osteotomy. To evaluate the potential change in knee contact forces, she contributed to the development of a neuromusculoskeletal modelling framework. Prior to her Ph.D., she obtained a Master of Science (M.Sc.) in Kinesiology (2017 to 2019) with a specialization in movement biomechanics from Lakehead University. Her M.Sc. thesis evaluated running kinematics on level, inclined, and declined surfaces with the use of multiple athletic taping techniques that were applied to the ankle. Dr. Cava also holds an

Honours Bachelor of Kinesiology (H.B.K.) (2013 to 2017) in Kinesiology at Lakehead University where she began her career in gait analysis among the varsity track and field team.

Throughout her academic career, Dr. Cava has had many opportunities to share her research by presenting at various national and international conferences to audiences specializing in biomechanics and clinical practice. She has also had the opportunity to publish her work in rehabilitation and clinical journals.

Dr. Cava has received extensive training in transdisciplinary research and has established collaborations among researchers in the fields of engineering, health sciences, and biology. In addition to her extensive academic background and research expertise, she has received opportunities to lead and mentor fellow peers by holding positions at both Western University and Lakehead University as a graduate student representative for her department. She also received a distinct opportunity to supervise a summer student in Biomedical Engineering.

This unique combination of academic, research, and leadership experience enables Dr. Cava to provide valuable expertise in injury biomechanics liability cases. Her in-depth understanding of human movement analysis, musculoskeletal and neuromusculoskeletal modelling, and rehabilitation allows her to assess factors contributing to the reconstruction of accidents and injuries with a high level of expertise. Dr. Cava's motivation to bridge the gap between engineering and clinical practice makes her an exceptional asset in the realm of biomechanics and injury investigation.

[Click here to request the full CV of Dr. Dominique Cava](#)