

**How NOT to Break a Bone**  
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**Short Biography**

Dr. Cheryl Quenneville is an Associate Professor in the Department of Mechanical Engineering and School of Biomedical Engineering at McMaster University, where her research interests include development of comprehensive injury limits for the human body, and translation of those to industry via surrogates such as Anthropomorphic Test Devices, or ‘crash test dummies’. She received her PhD from Western University, and previously worked as a Survivability Specialist for General Dynamics Land Systems – Canada.

**Abstract**

Injuries happen daily in a wide range of traumatic events, often with substantial long-term consequences for the subject. But what influence’s an individual’s risk of sustaining an injury? And how can we ensure that protective devices are designed correctly to protect the largest portion of the population? In this seminar entitled “How NOT to Break a Bone”, we will discuss the numerous factors that influence whether a person will sustain an injury or not during an impact event, and how industry assesses injury risk (and the limitations associated with this!). Some of our recent research into the mechanics of injury associated with car crashes, falls in older adults, and military blast events will be discussed, as well as future directions for crash test dummy design.

