

**TITLE:** Load Carriage for Emergency Responders

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## **BACKGROUND:**

Emergency services personnel may often be required to carry external loads both during a task and as a task requirement. In turn these external loads may be carried in extreme environments across unpredictable terrain. In tactical occupations, like the Defence Force, law enforcement, fire and rescue, ambulance, search and rescue, and other first responders, these loads, which can range from 10 to over 50kg. Not only are these loads known to cause a variety of injuries to the neurological and musculoskeletal systems of the carrier, but these loads are also known to impede task performance and have ultimately led to mission failure. To mitigate these potential risks of injury and performance decrements ensuring personnel are physically capable of carrying, and prepared to carry, loads on mission is critical

This session will explore research regarding both the impacts of load weight and more importantly risk enhancing factors (like terrain and speed) on load carriage capability. In addition, specific attention will be given to the impacts of load placement (e.g., backpack versus shoulder versus hands) on emergency services personnel and factors to consider when determining load placement around the body. Typical injuries associated with load carriage will be discussed as will potential negative task impacts (like attention-to-task and mobility). Finally, the latest evidence on optimal load carriage physical preparation will be presented in a simple, easy to apply, practical approach using the well-known Frequency, Intensity, Time and Type of Training formula.

By the end of the session, delegates will be able to

1. Identify the contextual impacts of load carriage on task performance
2. Apply risk modifiers to reduce load carriage risk and optimise mission outcomes
3. Express physical preparation requirements for load carriage