



NHRC



OPERATIONAL READINESS AND HEALTH

Our Operational Readiness and Health researchers leverage science to optimize human performance, recovery, resilience and injury prevention as well as develop medical planning, logistics, and decision support tools to keep our warfighters healthy and enhance operational readiness.

MEDICAL MODELING, SIMULATION, AND MISSION SUPPORT

Our researchers and data analysts equip military line and medical leaders with the tools and information they need to make informed decisions that promote operational readiness, warfighter survivability, and improved long-term health outcomes for injured and ill service members. Using data-driven science and proven methodologies, our research helps leaders and medical planners effectively assess risk and allocate resources.

Expeditionary Medical Research

Our Expeditionary Medical Research team studies mechanisms of injury, causes of illness, and casualty care and treatment from point of injury through definitive care to identify factors and best practices that improve health outcomes and operational readiness for our warfighters.

Modeling and Simulation

Our Modeling and Simulation team create tools to equip military medical planners, providers, trainers, and logisticians with the capability to examine various courses of action before, during, and after deployment. The tools can be used to more effectively allocate resources, assess risks, estimate casualties, and determine mission readiness.

Operational Medical Planning

We promote operational readiness by providing military leaders and logisticians with data-driven science and proven methodology that supports decision-making with evidence-based, actionable analysis.

WARFIGHTER PERFORMANCE

Our Warfighter Performance research is driven by fleet and troop requirements to optimize the health, survivability, and performance of our armed forces no matter where the mission takes them. From preventing injuries and promoting resilience to mitigating fatigue and sleep loss, our research provides solutions to the challenges today's warfighters face on and off the battlefield.

Environmental Physiology

Modern conflicts have taken warfighters around the globe, placing them in diverse climates that range from oppressive heat and humidity to freezing temperatures. To prepare military personnel for any environmental conditions they may encounter in future battlespaces, the Environmental Physiology team study the physiological effects of harsh environmental temperatures and develop evidence-based solutions to manage heat and cold stress while protecting the health and readiness.

Injury Prevention and Rehabilitation

Preventing injuries and rehabilitating wounded warfighters are two important areas of our research that support the health and readiness of our military. Our scientists focus on advanced rehabilitation and injury prevention, as well as the physical and cognitive stressors that impact military performance and service member health.

Physical Readiness and Resilience

We conduct operationally relevant research to support modern special forces operators, expeditionary forces, and ground combat troops by focusing on enhancing the physical readiness and resilience our warfighters. Researchers who support our Physical Readiness & Resilience portfolio have expertise in biomechanics, physiology, neuroscience, psychology, nutrition, and hardware and software engineering.

Fatigue and Sleep

Sleep loss and fatigue compromise the performance, health, and safety of warfighters. To maximize the operational readiness and resilience of our armed forces, the Sleep and Fatigue Research Laboratory develops and implements practical, evidence-based solutions for managing the negative effects of sleep loss and fatigue in military environments.