



NAVY MEDICINE

WORLD-CLASS CARE...ANYTIME, ANYWHERE

Naval Medical Research Unit - Dayton

The Naval Medical Research Unit-Dayton is a major DoD medical research command, as well as the home of the Naval Aerospace Medical Research Laboratory and the Environmental Health Effects Laboratory. As a subordinate command to Naval Medical Research Center, NAMRU-D conducts aerospace medical and environmental health effects research to enhance warfighter health, safety, performance, and readiness. NAMRU-D's research addresses identified Fleet needs, and results in products and solutions ranging from basic knowledge, to fielded technologies.

Our co-location with the Air Force's 711th Human Performance Wing at Wright-Patterson Air Force Base facilitates direct collaboration and allows us to leverage their extensive research capabilities.



MISSION

To maximize warfighter performance and survivability through premier aerospace medical and environmental health effects research by delivering solutions to the Field, the Fleet and for the Future.

VISION

By working with military, government, academic and industry partners, we will develop innovative solutions for the aeromedical and environmental health threats faced by our Navy and Marine Corps.

Join the Conversation:

 @NavalMedicalResearchUnitDayton

Commanding Officer:

CAPT Rees L. Lee
Medical Corps
United States Navy



Executive Officer:

CDR William R. Howard
Medical Service Corps
United States Navy





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Research Laboratories

Naval Aerospace Medical Research Laboratory

The Naval Aerospace Medical Research Laboratory is equipped with capabilities in acceleration and sensory science, biomedical, and engineering and technical services. All of which are supported by a unique collection of state-of-the-science research devices. NAMRL's human-rated motion platforms include the disorientation research device - the Kraken™, the Visual Vestibular Sphere Device, the Vertical Linear Accelerator and the Neuro-Otologic test Center. Each device has unique motion profiles, affording independent control of visual and vestibular stimuli to isolate sensory interactions associated with spatial disorientation and motion sickness. The altitude effects program can operate up to six Reduced Oxygen Breathing Device, each of which can simulate altitude exposures at up to 34k' under normobaric conditions. NAMRL's vision suite has a full array of ophthalmic equipment. Our unique research portfolio enables NAMRU-D to transition validated knowledge and effective technologies to the fleet, mitigating and preventing leading factors associated with aeromedical mishaps.

Environmental Health Effects Laboratory

The Environmental Health Effects Laboratory assesses potential health effects associated with exposure to various environmental stressors our military encounters, such as physical stressors and chemical and material hazards. EHEL uses in vitro and in vivo systems for exposure, conducts risk assessments using in silico modeling, and evaluates cytotoxicity, mutagenicity, genotoxicity, and underlying mechanisms of action. Our state-of-the-science exposure systems determine potential health impacts of various exposures and routes of exposure. Our expertise in evaluating inhaled toxins enables precise testing using whole-body and nose-only inhalation chambers. EHEL evaluates the effects of exposure from multiple standpoints. EHEL can replicate and assess health impacts of most environments: hyperbaria in diving and in flight, sandstorms, flight line noise, submarine breathing atmosphere, and the multitude of chemicals used in military operations. The ultimate objective is to develop health protective exposure standards for our military and civilian populations.

