



U.S. ARMY
RDECOM

Center for Human Injury and Performance
(CHIP)



open
campus

S&T Campaign:
Analysis & Assessment
Military Injury Biomechanics

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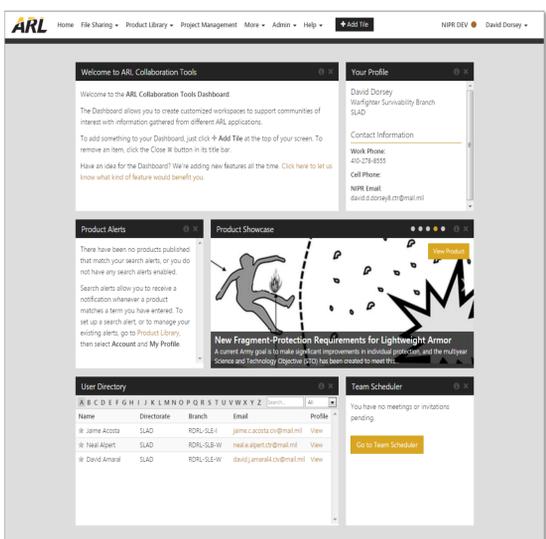
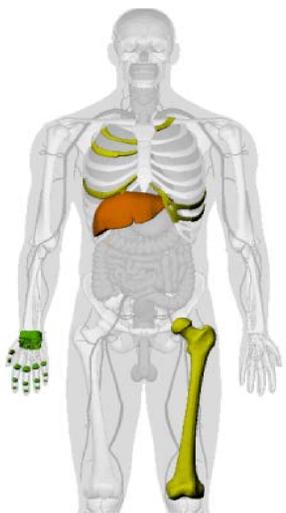
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Objective of CHIP

- Develop a multidisciplinary community of practice for professionals that focus on studying injury frequency, mechanisms, and resulting biomechanical performance to inform prevention, treatment, and rehabilitation.
- Establish a professional network to collaborate and disseminate information on injury research and analysis to include government, academia, and industry partners.

Mission of CHIP

- Coordinate and consolidate injury research via a central repository of data, tools, research, and contacts to unite the vast injury research community and build more effective and comprehensive injury prevention programs.
- Promote research and analysis to facilitate injury prevention, treatment, and rehabilitation systems across multiple causation scenarios.



ARL Capabilities to Support the Collaborative Research Center

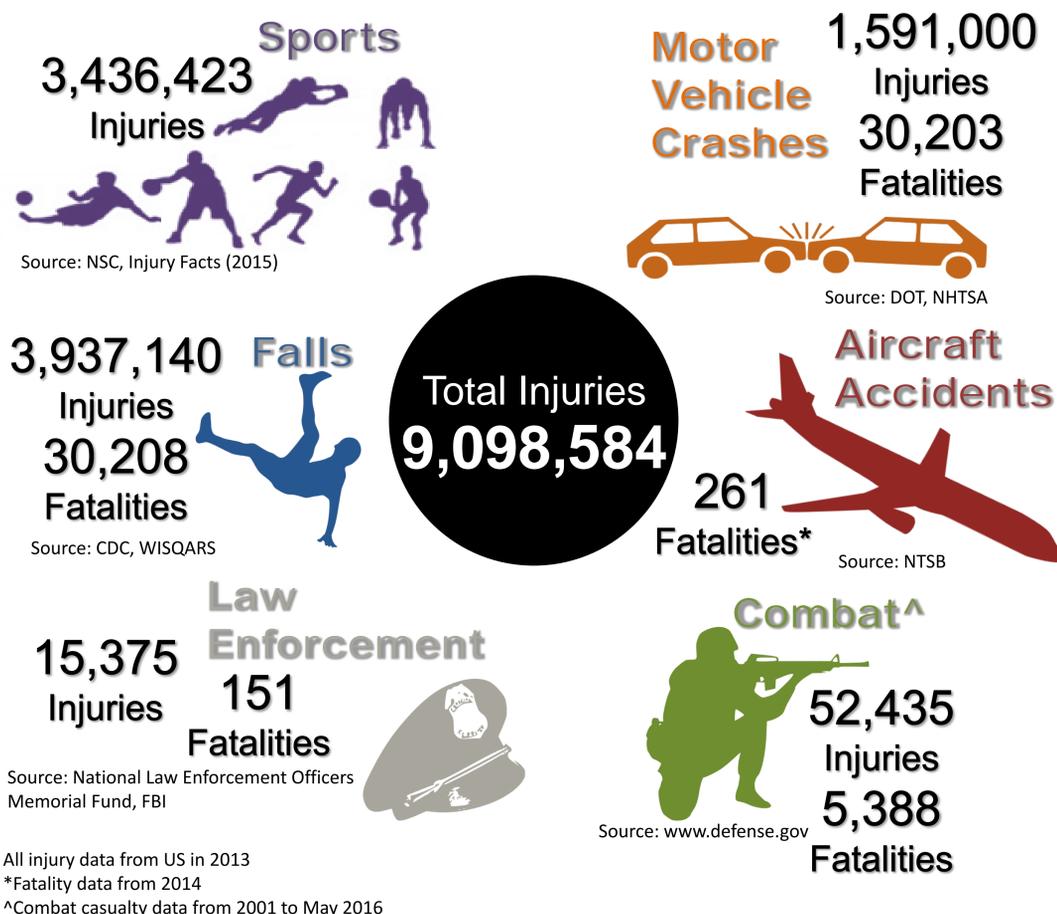
- Provide human performance and vulnerability research and analysis opportunities, which is a core competency area for ARL. This includes:
 - Expertise and facilities in ballistic experimentation, computed tomography, x-ray analysis, underbody explosive research, injury and human performance biomechanics laboratories.
 - Software, data management, and analysis tools developed by ARL.
 - Multi-disciplinary analytics in computational modeling, visual simulations, injury biomechanics, AIS coding, injury criteria development, and injury analysis.
- ARL cloud and infrastructure with expertise to handle the complexities associated with creating and managing centralized information resources including handling data access control, sharing, security on a publically accessible network file servers.

Sought Collaboration

- Researchers and scientists in the fields of injury biomechanics, human modeling, human performance, and computational sciences.

CHIP Benefits

- Accelerate and expand important injury research initiatives to enhance multidisciplinary impact across agencies.
- Enhanced quality of searchable databases and information.
- Share data, software, and analysis tools for visualization, injury, and performance analysis.
- Develop strong, beneficial collaborations with government, industry, and academic partners to work on common sharable problems of interest.
- Gain access to resources such as personnel and experimental facilities, with an exchange of data and ideas.



All injury data from US in 2013
*Fatality data from 2014
[^]Combat casualty data from 2001 to May 2016