

DoD Ergonomics Working Group NEWS



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Educational Track
**Ergonomics:
The DoD Perspective**

The Department of Defense (DoD) is the nation's largest employer, offering thousands of jobs in hundreds of different fields for service members and civilians throughout the United States and worldwide. The DoD strives to create a safe, efficient, productive and comfortable environment to best fit their workplaces to the needs of employees. The DoD track at the Applied Ergonomics Conference will illustrate how DoD achieves its ergonomics goals through comprehensive risk assessments, innovative equipment design, ergonomic interventions, and collaborative installation program development.

DoD Presentations

- Defense Occupational Health Readiness System - Industrial Hygiene
- ErgoFix
- Keeping Employees Healthy at Work Through Proper Ergonomics
- Army Installation Program Development
- Ergonomics: An Army Industrial Hygienist's Corporate Perspective
- Navy Mishap Prevention and Hazard Abatement Program
- Hand-Arm Vibration at a U.S. Army Installation
- Assessing Musculoskeletal Injury Risk During Product Development
- Embracing Vendor Relationships to Improve Quality
- DoD Best Practices Roundtable
- Ergonomic Challenge: Pentagon and Leased Facilities for 60,000 Workers
- A DoD Frontier - Ergonomic Safety for Patients and Staff
- Ten Terrific Tips to Improve DoD Workers' Compensation Outcomes
- Elements for Funding, Implementing, and Creating Ergonomics Solutions

See pages 2 through 5 for details regarding all of these presentations.

Registration

As an Ergo News recipient, you are eligible for special rates. Go to <http://www.iienet2.org/Ergo/Conference/> and register in the category "Participating Organizations." This link also provides important information on certification points and continuing education credits.

TUESDAY, 24 MARCH

Defense Occupational Health Readiness System - Industrial Hygiene

Army industrial hygienists are tasked to anticipate, recognize, evaluate, and control occupational health hazards at medical treatment facilities and installations worldwide. In order to accomplish these tasks, an industrial hygienist will conduct evaluations or surveys at workplace operations to determine the employees' (both military and civilian) potential exposures to chemical, physical, biological, and ergonomic hazards. The information gathered during these evaluations, including worker exposure monitoring results, is entered into the Defense Occupational Health Readiness System - Industrial Hygiene (DOEHRS-IH). This database collection system is used throughout DoD. DOEHRS-IH records contain a history of individual worker exposures. The data can then be analyzed and used by environmental, safety and occupational health practitioners to prioritize preventive medicine actions. This includes a baseline to facilitate exposure-based medical surveillance, allocation of resources, implementation of controls, and development of appropriate training programs. All these actions enhance combat readiness by focusing efforts to reduce workplace exposures, illnesses, and injuries.

ErgoFix

ErgoFix is a Web-based computer workstation self-assessment program designed to identify problem areas at employee workstations through job factor statements. Once ErgoFix has identified general problem areas, it generates more specific questions that allow the program to pinpoint areas of concern. Based on the pinpointed areas of concern, ErgoFix then offers a comprehensive set of possible solutions in a report format. The employee can then make the recommended changes to their workstation. ErgoFix allows workers to take an active role in the promotion of their own health and safety while at the same time takes a step in the reduction of the Department of the Army's injury rates.

Keeping Employees Healthy at Work Through Proper Ergonomics

The Computer/Electronic Accommodations Program (CAP) is the Federal government's centrally funded accommodations program, providing assistive technology and services to Federal employees with disabilities at no cost to the agency. In this presentation, attendees will learn how CAP's Healthy Work Practices Program offers assistance in preventing musculoskeletal disorders such as carpal tunnel syndrome, and how CAP is educating Federal agencies with ergonomics training and presentations and CAP's own Workplace Ergonomics Reference Guide. This presentation will help teach the proper ergonomic set-up for an office and how to conduct needs assessments. CAP provides personalized needs assessments in several ways including individual evaluations at the employee's workstation, by a visit to CAP's Technology Evaluation Center, or by a phone or VTC assessment given by one of CAP's trained staff. Attendees will benefit from a better understanding of ergonomic principles and best practices, the needs assessment process, and how CAP is a valuable resource to Federal employees with disabilities.

TUESDAY, 24 MARCH—continued**Army Installation Program Development**

Recently, there has been an increased focus on developing and implementing ergonomics programs in the DoD in an effort to reduce injuries affecting the civilian work force and improve military readiness. Ergonomists are now faced with the need to develop ergonomics programs and to assess the programs that have been developed. Ergonomics program development and assessment are essential steps in the process of decreasing work-related injuries in both civilian and military personnel. Program implementation, progress, and effectiveness can be evaluated through both external and internal review of the installation ergonomics program.

Ergonomics: An Army Industrial Hygienist's Corporate Perspective

A comprehensive set of observational and scientific skills are required to anticipate, recognize, evaluate, and control a variety of hazards in any Army operation. Clearly, the knowledge and skills to prevent work-related musculoskeletal injuries in the workplace are at the top of those skill sets. In this presentation, the Army industrial hygienist's role with integrating ergonomics within the overall Army's industrial hygiene program will be discussed. This presentation will summarize the challenges and successes from the Army's industrial hygiene corporate perspective. Ways to improve will be presented, including the potential return on investment from these improving actions. Finally, there will be a discussion and dramatization of the importance of becoming a "Trim Tab" in guiding the successful integration of ergonomics in an industrial hygiene program.

Navy Mishap Prevention and Hazard Abatement Program

Navy activity commanders and commanding officers have the primary responsibility for correcting safety and health hazards affecting their personnel. This responsibility includes budgeting for and funding correction of hazards. However, funding is sometimes beyond the capability of the local activity and the claimant. To assist in these cases, the Mishap Prevention and Hazard Abatement (MPHA) Program was established. This session describes the unique Navy program used to assist in funding hazard abatement projects with a focus on ergonomics projects. The program is described and actual ergonomic interventions funded with MPHA dollars are presented.

WEDNESDAY, 25 MARCH**Hand-Arm Vibration at a U.S. Army Installation**

At a U.S. Army Installation, the workers on a vehicle disassembly line use power tools—such as impact wrenches, grinders, and cutting wheels—during the disassembly process. These tools expose the workers to hand-arm vibration, which can lead to occupational illnesses such as carpal tunnel syndrome, Raynaud's syndrome, and tendonitis. Many of the workers use gloves to shield their hands from the vibration caused by power tools and to protect their hands from cuts, scrapes and abrasions. A vibration analysis of seven different gloves used by the workers was performed to determine the effectiveness of the gloves on their ability to isolate the workers' hands from the vibrating tools. This presentation will discuss the methodology, procedures, and results from the vibration analysis.

WEDNESDAY, 25 MARCH—continued**Assessing Musculoskeletal Injury Risk During Product Development**

The U.S. Army uses safety and health assets to protect Soldiers from occupational injury. One aspect of this philosophy is embodied in the health hazard assessment process that requires certain classes of developing products to be reviewed to identify hazardous exposures, assign risk assessment codes, and recommend mitigation strategies. Methods for assessing many exposures such as chemical, microwave, noise, and laser are well established. However, it is often challenging to assess injury risk from ergonomic risk factors. This presentation will discuss how Army ergonomists currently assess ergonomic hazards from equipment during the design stage and how the results of these assessments influence the product design or use. A vision for improving ergonomic product assessments in the future will also be presented.

Embracing Vendor Relationships to Improve Quality

Red River Army Depot (RRAD) has been on a journey since 1991 to continually improve on a quality product in support of the Soldiers in the battlefield. This has led to the implementation of ISO initiatives and Lean Manufacturing principles. Although processes improved based on increased awareness, certain tasks at RRAD were still physically demanding and caused injury. Although RRAD did not have the expertise in-house to modify these physically demanding jobs, RRAD was able to identify a need for increased ergonomics awareness and set off to develop relationships with Army agencies, defense contractors, and private industry. These relationships have helped RRAD see work in a different manner. Although ergonomics alone does not account for the decreased injury rates and increased production rates, it is a part of the depot's 88-percent reduction in the lost-time accident rate and 52-percent workload increase with only a 27-percent increase in personnel.

DoD Best Practices Roundtable

This interactive roundtable focuses on ergonomics best practices, those lessons learned and success stories that can help you make your workplace a better place. This is an excellent opportunity to listen, share, ask questions, and find out what's going on in DoD. Smart, money-saving ergonomic solutions are implemented across DoD every day—join us to share your experiences and hear about those of your peers. We guarantee you'll walk away energized with new ideas!

Ergonomic Challenge: Pentagon and Leased Facilities for 60,000 Workers

The Washington Headquarters Services (WHS) Defense Facilities Directorate (DFD) manages the Pentagon Reservation and 100+ leased facilities in the Washington, DC, area for the Secretary of Defense and more than 60,000 DoD military, civilian, and contractor personnel and visitors. The ergonomic challenge is to ensure that their workplaces and public areas are safe, healthy, secure, sustainable, and environmentally sound. The \$4 billion Pentagon Renovation and \$1 billion Base Realignment and Closure (BRAC) move to Ft. Belvoir, VA, will improve workplaces, impact productivity, and influence quality of life for 30,000+ people. Measures to improve awareness and application of ergonomic principles include many types of training, communications, documents, evaluations, and meetings. The U.S. Army Ergonomics Program evaluated pre-selection keyboard tray

WEDNESDAY, 25 MARCH—continued

criteria, furniture kit-of-parts, and ergonomic task seating for the renovation. Pentagon Accessibility Forums and the Computer/Electronics Accommodation Program help fit workplaces to workers with disabilities. The DoD Ergonomics Working Group provides valuable on-line information and 3-D video safety training addressed psychosocial factors that cause traumatic injuries. Given the large number of employees and computer workstations, the potential pain, suffering, and cost of work-related musculoskeletal disorders, and the goals of the Secretary of Defense Mishap Reduction Initiative, WHS will continue to improve workplaces with ergonomics.

A DoD Frontier - Ergonomic Safety for Patients and Staff

(1) Creating the Sense of Urgency: recognizing the opportunity of major construction of new DoD hospitals; awareness of staff injuries related to patient handling and movement; validation by review of corporate-level data and realization of significant rate of injuries compared with NIOSH rates, an opportunity in crisis. (2) Change Strategy and Vision: overcoming cultural resistance to ergonomic interventions through partnering with Department of Veterans Affairs and others; funding targeted ergonomic assessment and root cause analysis to underscore scientific basis for intervention. (3) Making it Happen: presentation to senior leadership with suggested pilot sites with high level of success; short-term wins; bringing the outside in. (4) Holding the gains to make the culture stick.

Ten Terrific Tips to Improve DoD Workers' Compensation Outcomes

In 2004, the Presidential Safety, Health, and Return-to Employment (SHARE) Initiative established four workplace safety and health goals for every Federal department and the five largest independent agencies. At the end of the first 3 years of the Initiative, the Administration extended the goals through FY 2009, reaffirming their commitment to improving conditions for Federal workers, while also reducing the financial costs to America's taxpayers. The scorecard for DoD and the military components indicates mixed results over the past year, resulting in the cascading of scorecards to establish measures, targets, goals, and initiatives to address the gaps and shortfalls. The purpose of this presentation is to discuss how the Army's Center for Health Promotion and Preventive Medicine is using available data, policies, and best practices to contribute to meeting the SHARE goals and improving outcomes for Army civilian workers.

Elements for Funding, Implementing, and Creating Ergonomics Solutions

With production escalated throughout wartime activities at a DoD (Navy) rotary wing aircraft maintenance facility, a fertile environment existed for launching a resourceful Ergonomics Program. This session will examine implementation of ergonomically efficient work methods, equipment design, and employee techniques in a production-driven facility established in the 1940s. The approach that will be described moved the facility from a \$0 ergonomics budget to \$1,250,000 within a 2-year timeframe. The session will include before and after shots of innovative office-to-production ergonomic solutions.