

# DoD Ergonomics Working Group NEWS



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## 60,000 Ergonomic Challenges in One Place!



### Introduction

How do we ensure ergonomic workplaces for more than 60,000 military and civilian personnel in the Pentagon and other facilities managed by the Washington Headquarters Services (WHS) in the National Capital Region? How do we reduce the likelihood of work-related musculoskeletal disorders (WMSDs) in office environments? The answers can be found by looking at a history of the Pentagon, the organizations involved in safety and occupational health, and support activities of the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Ergonomics Program and Department of Defense (DoD) Ergonomics Working Group (EWG).

### Pentagon History - Ergonomics Through the Years

- 1940s Construction of Pentagon and Navy Annex, 7,500,000 ft<sup>2</sup> for 30,000 workers, open bays with traditional government stand-alone furniture, telephones, and typewriters.
- 1980s Increased subdivision of space, use of systems furniture, and desktop computers.
- 1990 Congress transferred Pentagon Reservation from General Services Administration (GSA) to DoD; established a fund to operate, maintain, and renovate the Pentagon from rents paid by tenants; and set a Renovation cap of \$1.2 billion.
- 1997 Renovation began on the first of five Wedges to meet current health, fire, life safety, and accessibility codes, and provide reliable utility services.



New furniture cost estimates of \$100+ million gave excellent opportunity for ergonomic input.

WHS outlined an Ergonomics Program in response to the Deputy Under Secretary of Defense (Environmental Security) memo on Ergonomics Program Requirements. Two staff members (safety manager and industrial hygienist) completed USACHPPM's 40-hour Ergonomics Course.

DoD Instruction 1438.5 re-chartered Army's Civilian Employees Health Service (CEHS) to continue providing occupational health and medical services, including ergonomic evaluations.

- 1999 Deputy Assistant Secretary of the Army (Environment, Safety, & Occupational Health) offered expertise of DoD Ergonomics Working Group to Pentagon Renovation (PenRen) manager. USACHPPM assisted with keyboard tray criteria for building-wide purchase.

DoD Computer/Electronic Accommodations Program provided an illustrated guide to assessing ergonomic needs in the office workplace and planning effective solutions.

- 2000 EWG provided DoD Information Guides on Preventing WMSDs and Creating the Ideal Computer Workstation. Guides distributed to Pentagon tenants via Building Council.

- 2001 First comprehensive WHS Safety, Health, and Environmental Policy.

WHS Safety Program Plan included 14-page chapter on ergonomics.

- 2003 Secretary of Defense (SECDEF) challenge to reduce mishap and accident rates. Goal is to reduce FY 2002 lost time due to work injuries by 50% in FY 2005 and by 75% in FY 2008.

- 2004 USACHPPM evaluated Army furniture in part of Wedge 1 and recommended improved chairs and administrative controls. Army resolved WMSD complaints by replacing 38 chairs.



KOP furniture with Smart Walls that contain wiring for phones, computers, and electrical outlets.

- 2005 Base Realignment & Closure (BRAC) decisions will relocate more than 20,000 personnel to Ft. Belvoir, including about 9,200 WHS tenants. BRAC moves offer DoD-wide opportunities for ergonomic input.

Universal Space Plan for Renovation evolved from Spine Walls in Wedge 1 to Smart Walls and Furniture Kit-of-Parts (KOP) in Wedges 2 and 3 and beyond. USACHPPM evaluation of six KOP mockups helped PenRen select two offerors for Wedge 3 workstations.

- 2006 PenRen Ergonomic Seating Specification for 13,000+ chairs in Wedges 3-5. USACHPPM used health risk criteria to evaluate and rank 22 chairs from 11 GSA-schedule vendors. This helps PenRen and tenants select task seating through FY 2010 when Renovation will be complete. Vendors must provide CDs on how to adjust chairs.



Don Goddard, USACHPPM ergonomist, evaluates task seating, April 5, 2006.

WHS continues participation in SECDEF Mishap Reduction Initiative, development of Integrated Safety & Environmental Management System, and planning for Environment-Safety-Occupational Health Compliance Assessment Staff Visit and OSHA Voluntary Protection Program.

## Organizations Providing Ergonomic Assistance

- Pentagon Tenant Agencies, including the Military Services, Defense Agencies and Field Activities, are responsible for providing their employees with workplaces that are free from recognized hazards under the OSHA General Duty Clause. Employees are responsible for following applicable rules and recommendations to protect their occupational safety and health. <http://www.defenselink.mil/pubs/pentagon/>
- The Director of the WHS Defense Facilities Directorate (DFD) is responsible for oversight of safety, occupational health, fire safety, energy management, and environmental compliance for the Pentagon Reservation and other WHS-managed facilities. DFD works with the tenants on many organizational levels, including the Pentagon Governance Council, Building Councils, Designated Agency Contacts, and Renovation Integrated Product Teams (IPTs). [www.dtic.mil/ref/](http://www.dtic.mil/ref/)
- The DFD Engineering and Technical Service Division Safety & Environmental Management Branch provides safety, occupational health, and industrial hygiene training, inspections, and evaluations with government and contractor personnel. [www.dtic.mil/ref/Safety/index.htm](http://www.dtic.mil/ref/Safety/index.htm)
- The DFD Federal Facilities Division and the Pentagon Force Protection Agency provide training, personal protective equipment, and union-management safety meetings for their employees. [www.dtic.mil/ref/BuildingSpace/Fed.htm](http://www.dtic.mil/ref/BuildingSpace/Fed.htm) and [www.pfpa.mil](http://www.pfpa.mil)
- The DFD Space Policy & Acquisition Division and the Pentagon Renovation & Construction Program Office incorporate ergonomic principles in design, specifications, and product evaluations for office fit-outs. [www.dtic.mil/ref/BuildingSpace/SpcMgmt.htm](http://www.dtic.mil/ref/BuildingSpace/SpcMgmt.htm) and <http://renovation.pentagon.mil/>
- The DiLorenzo TRICARE Health Clinic provides primary care for military personnel. The Civilian Employees Health Service provides clinical evaluation of musculoskeletal complaints, workplace evaluations, and recommendations for corrective measures for both military and civilians. The clinics provide ergonomic publications and evaluations at annual health fairs on the Pentagon Concourse. [www.narmc.amedd.army.mil/dilorenzo/home.htm](http://www.narmc.amedd.army.mil/dilorenzo/home.htm)
- The USACHPPM Ergonomics Program provides leadership and support to Army Installations and other DoD Agencies in the areas of ergonomics program development, education and training, system evaluation, analysis and measurement, and applied research. <http://chppm-www.apgea.army.mil/ergogpm/ergohome.htm>
- The EWG serves as the technical advisor to the DoD Components and partners with other Government agencies regarding the safety and health aspects of WMSDs. [www.ergoworkinggroup.org/](http://www.ergoworkinggroup.org/)
- The DoD Computer/Electronic Accommodations Program and Technology Center (CAP/CAPTEC) provides training and assistive technology for those with disabilities. [www.tricare.osd.mil/cap/](http://www.tricare.osd.mil/cap/)

## Conclusion

In 1997, the Office of the Secretary of Defense estimated that ergonomic hazards accounted for 35% of the \$600 million per year in DoD civilian workers' compensation costs, and a significant portion of military injury and illness. The percentage may be higher today. Given the large number of employees, the need to reduce employee pain and suffering, the direct and indirect costs of lost time due to WMSDs, and the goals of the SECDEF Mishap Reduction Initiative, we must continue to reduce hazards and improve the quality of workplaces in the Pentagon and other WHS managed facilities. Ergonomic awareness, expertise, principles, specifications, guidelines, and features all contribute to that quality of life.

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**For more information, contact:  
Dr. Brian Higgins, Special Assistant  
Environmental & Safety Policy, WHS-DFD  
Brian.Higgins@whs.mil**