

DoD Ergonomics Working Group NEWS



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Ergonomics: A Key Part of the Industrial Hygiene Survey Process at U.S. Naval Hospital, Rota, Spain

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Going the Extra Mile

U.S. Naval Hospital (NH) Rota has gone the extra mile to develop, submit, and execute special ergonomic hazard abatement projects via the Navy Mishap Prevention and Hazard Abatement Program (MPHA) managed by Naval Facilities Engineering Command (NAVFAC).

At Naval Station Rota, many potential ergonomic problem areas were going unreported and, when known, local department funding was often not available for effective abatement. The NH Rota Industrial Hygiene (IH) Department decided to make the investigation of potential ergonomic problems a prime focus of its periodic survey process of all activities base wide. Staff received ergonomics training and then put that training to good use, reporting ergonomics issues in formal survey reports as workplace safety and health deficiencies requiring tracking to final abatement. When funding was not available, the IH staff developed and submitted funding requests for abatement projects to the Navy's MPHA program. For those projects funded, the IH staff assisted with final execution—ergonomics product selection and ordering.

Cost Savings

In the vast majority of our small ergonomics improvement projects (\$10K to \$20K), the cost of only one avoided back injury or carpal tunnel/ tendonitis injury would pay for the ergonomic improvement—

The very high emphasis the NH Rota IH Department places on the recognition, evaluation, and control of ergonomic hazards in its IH Survey Program may be a unique all-encompassing process for workplace hazard control. Specifically, the staff's efforts in obtaining funding for mitigating ergonomics hazards identified in their own IH reports represents a "cradle-to-grave" approach differing in degree of attention typically given in IH surveys. The focus goes beyond simple hazard recognition to actually facilitating closure of ergonomic deficiencies for worker benefit.

The funding the NH Rota IH Department solicited to abate potential ergonomic risks identified in its survey reports has definitely reduced ergonomic risks in many different jobs and shops across the base. The following pages illustrate the positive impact of those purchases.

Seeing is Believing



BEFORE



AFTER

Ergonomic shelving was installed in the galley and the hospital's disaster contingency warehouses where material had been traditionally stored on pallets. The shelving alleviates workers' non-neutral material-handling postures during item retrieval.



Ergonomic mechanic floor creepers with back supports help public works department vehicle service garage employees working under vehicles for prolonged periods of time.



Automated crane cable lubrication and cleaning system allows a single worker to clean and lubricate these VERY long and heavy cables in a seated posture. Before this ergo improvement, cables were cleaned and lubricated by hand literally foot-by-foot by TWO workers standing on their feet all shift.



Specialty ergonomic dental chairs for NH Rota clinic dentists and assistants relieve stresses from prolonged periods in non-neutral body postures.



Special heavy duty dollies and ergonomic material carts improve movement of small ammunition boxes (some of which weigh over 100 pounds).



Ergonomically designed material transport carts lessen the force needed for manual material movement duties in various supply department warehouses, the base hazardous material center, etc.



Hospital operating suite renovation with ergonomically designed “Skytron” ceiling-mounted racks raise surgical equipment up off the floor to eliminate operating room clutter and improve work flow. In addition, flat panel video endoscopy TV monitors and a local exhaust surgical smoke extractor were installed on these boom arms.



BEFORE



BEFORE



AFTER

Adjustable microscope ocular heads for the hospital’s laboratory allow the eyepieces to be moved up or down according to users’ specific body height. This significantly reduced chronic non-neutral neck working postures.

More Successful Interventions

- **Chairs.** IH reports found inferior, nonadjustable, or broken chairs in base offices. Over the course of a decade, over 95% of routine computer users (i.e., sedentary for more than 4 hours daily) had their chairs upgraded to units meeting basic DoD Ergonomic Working Group guidance. Approximately 900 office chairs were replaced base wide with ergonomic models.
- **Mops.** Ergonomic floor mop equipment was purchased for the cleaning crew staff. Specifically, swivel-head mops and ergonomic mop wringer devices were procured to lessen the force janitors had to exert up to 300 times daily in mop-wringing tasks.
- **Floor Matting.** IH surveys recommended the purchase of anti-fatigue floor matting to relieve the stress of prolonged standing work. Worker comfort has been greatly increased in such areas as retail stores, labs, pharmacies, welding and other workshops, the base post office, and so on.

Positive Employee Feedback

No concrete data is available on the approximate number of lost-time injuries avoided or increased productivity gains in dollars. However, follow-up IH surveys after an ergonomic improvement was made are over 90% positive—employees state they are working much more comfortably and with less force and stress and, in some instances, less pain. In the vast majority of our small ergonomics improvement projects (\$10K to \$20K), the cost of only one avoided back injury or carpal tunnel/tendonitis injury would pay for the ergonomic improvement—in some cases 2 times or more over.

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More information on ergonomics and the technical support available through the MPHA Program can be found on the NAVFAC Ergonomics website at www.navfac.navy.mil/safety (select “Ergonomics”).