

# WINFORMA

KEEPING YOU INFORMED



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### Special points of interest:

- ⇒ Does your organization demonstrate “Ergonomics Connectivity”?
- ⇒ Ten years after the ergonomics regulation, how have things changed?
- ⇒ PREMUS Conference brings Int'l research on MSDs.

**About WINFORMA:** Our newsletter is aptly named WINForma, which means Worksite International Network (WIN) Information. The WIN consists of our trained and mentored consultants, employer and insurance clients, physicians and ergonomic product vendors all working together for the same purpose to prevent and manage work injuries more effectively. You will find a variety of articles to interest all of our members.



## ERGONOMICS CONNECTIVITY

**E**ncarta dictionary defines connectivity as the ability to connect with something, especially to communicate with another machine, for example a computer system.

**Ergonomics Connectivity** is the act of being connected by a common objective whereby all participants respond in a systematic, organized and consistent manner to achieve specified goals pertaining to the ergonomics process.

Does your organization have “Ergonomics Connectivity”? To assess your level of connectivity consider the following questions.

1. Is there an organizational policy that defines what your ergonomics process is, and how it will be implemented?
2. Are there written, measurable objectives to define what the process will achieve and how it will work with other programs such as safety and workers' compensation?
3. Are roles and responsibilities clear within the operations as to how ergonomics strategies are to be applied by employees and management and other department leaders?
4. Is there accountability at all levels built into a performance based measurement

program and is it used consistently to achieve the objectives identified.

5. Is there ample monies allocated to the process to supported the stated objectives?

An example of “Ergonomics Connectivity” is provided below.

The employee handbook contains the ergonomics process policy, goals and objectives signed by the CEO, which employee receives at the time of hire. A flow chart is provided to identify the ergonomics process flow and how the employee can benefit. Individuals within the organization responsible for ergonomics actions to be implemented are listed with email and phone contact information. An online ergonomics analysis and training program or similar self-assessment tool is available to be completed by the new employee within 90 days of hire. Following completion, the employee notifies the manager to review for the appropriate response. A discussion occurs between the employee and manager as to the actions necessary to respond to the employee's needs. Information systems, purchasing, facilities and maintenance are notified as to the recommendations. Each of these departments has specific training aligning them to respond properly to ergonomic actions. All reply to the employee/manager within 72 hours to assure continuation of the process. The actions identified are implemented (cont. pg 2)

## TEN YEARS AFTER CAL-OSHA 5110

This past July 3rd was the 10th anniversary of the Cal-OSHA Repetitive Motion Injury Standard. There was no fan fare about it, that's for sure. However, as an industry expert, I have observed many changes within the workers' compensation marketplace since the regulation went into effect. Some good and some not so good. For example, citations by Cal-OSHA are few and far between for employers regarding ergonomics compliance. It doesn't even make the top 10 citation offenses for California employers. That doesn't mean there is full compliance at this point, just that it isn't high on the priority list. With the resent workers' compensation reform, SB899, the pendulum for medical care seems to most certainly have swung in the other direction. Employees find it harder to get good medical care and wait a long time for authorizations. Physical Therapy and Chiropractic care have been restricted to 24 visits maximum and there is no more vocational rehabilitation services. Only vouchers are used now for career changes related to work injury. Physicians are not utilizing ergonomic worksite analysis as part of the medical management of the claim as previously. There are simply much less referrals circulating in the system. Employers have benefited with reduced premiums however that are more inline with other states. Insurance companies have returned to the state to offer more (continued page 2)

## CALENDAR OF EVENTS

- ⇒ July 25, 2007 : Lorman National Teleconference; “**Preventing Repetitive Motion Injury Through Cost Saving Ergonomics And Workers' Compensation Management Strategies**”, [www.lorman.com](http://www.lorman.com). Alison will conduct the webinar.
- ⇒ August 2-3, 2007: **Ergonomics Program Development**; [www.coehce.org](http://www.coehce.org).
- ⇒ August 27-30, 2007: **PREMUS International Conference on Prevention of WRMSD**; Boston, MA. Alison will present ROI findings.
- ⇒ September 12, 2007: “**Mousing Around the Keyboard**”; Office Master Showroom, 21730 Stevens Creek Blvd., Cupertino, CA, [www.omcal.com](http://www.omcal.com)
- ⇒ September 20-21, 2007: **ORI Advanced Ergonomics Training**, Memphis, TN, [www.oxfordresearch.org](http://www.oxfordresearch.org).
- ⇒ October 4-5, 2007: “**DIY Ergonomics For Employers**”. Worksite International, Monterey, CA., 888-288-4463

*“ Be careful about reading health books.*

*You may die of a misprint.”*

*Mark Twain, Humorist*

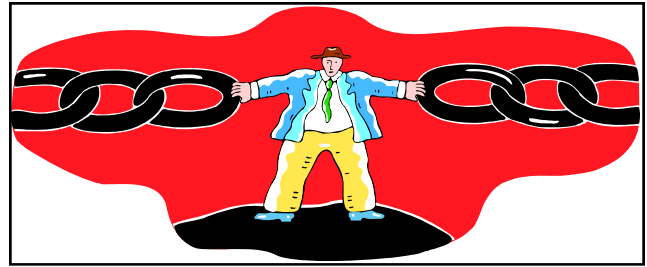
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## ERGONOMICS CONNECTIVITY (CONTINUED)

in a timely manner particularly if there are symptoms reported. The manager then follows up with the employee to assure all actions are completed. Additional evaluation expertise is available and medical management if needed. Finally, human resources is notified of the outcomes and whether any further action is needed.

Gaps in this process indicates a lack of ergonomics connectivity resulting in poor performance and policy failure. This likely will result in quality issues, increased risk of injury, claim filing and additional costs to resolve the ergonomic issues. In other words, a state of “ergonomics disconnect”. There are however numerous benefits to this value stream



when connectivity is demonstrated. They include a standardized process that is understood by all. Quality outcomes to improve employee work practices and the work environment. Minimized waste in time and movement patterns. And most importantly, a return on investment for preventing the occurrence of work injuries. When companies are connected, our research shows a return on investment of \$2.00 to \$34.00 for every dollar invested. There are few investments a business can make to yield such a high return.

Does your company demonstrate **Ergonomics Connectivity or Disconnectivity**? For assistance in determining your level of ergonomics connectivity, call Worksite International for our **ERGONOMICS PROCESS PERFORMANCE BASED AUDIT**.

### TEN YEARS AFTER (CONTINUED)

more workers' compensations policies. These policies typically include loss control services that provide an employer with some complimentary services that often include an introductory level of safety and ergonomic analysis services. In addition, employers now have a higher degree of in-house skills to implement ergonomics programs. They are becoming more savvy in providing employees with the education and training they need to work with better ergonomics. In addition, the ergonomics product industry is thriving with new products including a vast array of ergonomics chairs, alternative keyboards and mice, keyboard trays, flat screens and many other devices that contribute significantly to improved employee productivity. Furthermore, the opportunity to utilize online, web-based tools for employee education and assessment helps to significantly streamline an employer's program.

To some extent, the advent of the Cal-OSHA 5110 ergonomics regulation has made ergonomics a commodity. In this respect, many individuals with or without a degree in Human Factors/Ergonomics or related field are providing advice on how to become more ergonomic. The regulation has worked well to push ergonomics to the lowest common denominator so that many employers now understand the value that the science can provide without consulting an expert. However, at the same time, the science can be undermined with inexperienced people dabbling in ergonomics without the requisite education and experience required to make sound decisions resulting in poor program outcomes, poor product selection and other negative effects. None-the-less, the regulation is here to stay and likely to remain as a reactive strategy. We can only hope that ergonomics will infiltrate further into society to have a greater impact on product and building design for better living, not just working.

**LETTERS TO THE EDITOR:**

**Manny Halpern at NY University writes....** Thanks for keeping me in the distribution list. I always enjoy reading the WINFORMA. The Winter/Spring 2007 issue contained one article that I felt deserved a comment. You refer repeatedly to the DOT (Dictionary of Occupational Titles) as the format for quantifying work demands. FYI, the DOL (Dept of Labor) abandoned the DOT about 12 years ago and has been using O\*NET - a system that enables you to describe the exertional (physical) as well as non-exertional (mental) demands. Several PTs built their services on the DOT and were upset when the DOL switched; the problem with the DOT was that with the shift in the job market toward a more service-oriented economy, it could not define job requirements adequately. We have been using O\*NET-like job descriptions for establishing medical standards for hiring/promotion/return-to-work purposes. In other words, O\*NET taxonomy can be used for medical decision making.

The Department of Labor notes that "The DOT was created by the Employment and Training Administration, and was last updated in 1991. It is included on the Office of Administrative Law Judges web site because it is a standard reference in several types of cases adjudicated by the Office of Administrative Law Judges, especially labor-related immigration cases." **The DOT, however, has been replaced by the O\*NET**. For more details, visit <http://online.onetcenter.org>

Dear Manny,

*Thank you ,Manny for bringing this change to my attention. I was aware that the DOT had not been reprinted since 1991 but was not familiar with O\*NET. The physical demands table I provided however continues to be current. Your update is appreciated.*

*Alison Heller-Ono, Editor, WINFORMA*

## **Alison Heller-Ono has been selected as a guest speaker at PREMUS 2007, the Sixth International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders.**

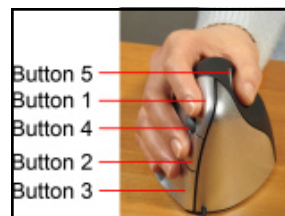
The conference begins on August 26-30, 2007 in Boston, MA at the Harvard Medical Conference Center. PREMUS is an international scientific conference that serves as a forum for work-related musculoskeletal health research with an emphasis on prevention of work-related musculoskeletal disorders (MSDs). The participants include international experts in the field, such as scientists, practitioners in occupational health and safety, Ergonomists, economists, industrial engineers, and policy makers. The goal of PREMUS is to present and discuss the latest research. All keynote speakers are by invitation only and are recognized for their leadership and their international expertise. All presentations go through a peer review process ensuring high quality of research. As a result, PREMUS is the premier conference for work related MSDs. Over the past 20 years, PREMUS has been organized every three years. PREMUS 2007 is the first time the conference will be held in the United States.

Alison will present twelve years of successful outcomes using ergonomics methods in her paper, **“Preventive ergonomic strategies demonstrate substantial cost benefit for small to mid-size employers”**. She will discuss three case studies that focus on developing an ergonomics process with a team approach for in-house expertise; consultant lead preventive ergonomic analysis for employees with early symptoms and preventive ergonomic analysis combined with ergonomics training for employees. Alison’s results reveal a substantial cost-benefit for each case demonstrating a return on investment of \$2.00 to \$34.00 for every dollar invested by clients. To learn more, call 831-648-8724 or visit [www.worksiteinternational.com](http://www.worksiteinternational.com) and download the white paper at <http://www.worksiteinternational.com/downloads>.

## **ERGONOMIC PRODUCT SHOWROOM**



The **Evoluent Vertical Mouse** is changing the way we use our pointing devices. If you haven't tried this upright mouse, you really ought to consider it, especially if you suffer from a sore and achy wrist as the result of traditional mouse use. Typical right wrist ailments occur as the result of leaning on the wrist rest, desk top or mouse platform in a sustained posture. Other contributing factors include isolating movement from the wrist forward and pushing the mouse to the lateral side or ulnar aspect of the wrist. The Evoluent changes the wrist and forearm posture dramatically



by allowing the forearm, wrist and hand to remain in neutral and

slightly elevated above the work surface. Instead of pushing the device from the wrist forward like most users, the vertical mouse encourages whole arm motion, recruiting larger muscles

instead of smaller and distributing the biomechanical forces to the whole arm instead of the wrist and hand. In multiple trials, upon immediate positioning, end-users notice a difference immediately in forearm, wrist and hand comfort. The Evoluent offers 5 programmable buttons for optimum control and reduced repetition.



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Cost: \$895.00 which includes continental breakfast, lunch, course workbook and reference manual, evaluation tools and ergonomic vendor literature.

Name and Company \_\_\_\_\_

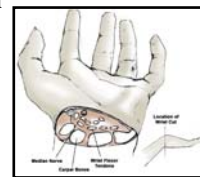
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**Latest Ergonomics Science:  
 Guidelines for Wrist Posture Based on Carpal  
 Tunnel Pressure Thresholds**

In a cooperative study between McMaster University, Univ. of Colorado and UCSF, scientists have developed work guidelines for wrist postures based on carpal tunnel pressure. Wrist posture is considered a risk factor for distal upper extremity musculoskeletal disorders, and sustained wrist deviation from neutral at work may be associated with carpal tunnel syndrome. In the study, the relationship of wrist posture to carpal tunnel pressure was examined in 37 healthy participants. The participants slowly moved their wrists in extension-flexion and radioulnar deviation while wrist posture and carpal tunnel pressure were recorded. The wrist posture associated with pressures of 25 and 30 mmHg were identified for each motion and used to determine the 25th percentile wrist angles (angles that protect 75% of the study population from reaching a pressure of 25 or 30 mmHg). The results using 30mmHg, indicate the 25th percentile angles were 32.7degrees (95% confidence) for wrist extension, 48.6 degrees for flexion, 21.8 degrees for radial deviation and 14.5 degrees for ulnar deviation. For 25mmHg, the 25th percentile angles were 26.6 and 37.7 degrees for extension and flexion, with radial and ulnar deviation being 17.8 and 12.1, respectively.



In conclusion, the researchers found that further research can incorporate the independent contributions of pinch force and finger posture into this model. They note that the method presented can provide wrist posture guidelines for the design of tools and hand intensive tasks.

For further details on this study, contact david.rempel@ucsf.edu or HUMAN FACTORS, Vol. 49, No. 1, February 2007, pp.88-99. Copyright ©2007, Human Factors and Ergonomics Society.