CRUM & FORSTER®
A FAIRFAX COMPANY

RISK ENGINEERING

OFFICE ERGONOMICS

Every year, the U.S. Bureau of Labor Statistics reports approximately 650,000 work-related musculoskeletal disorders (WRMSDs), resulting in costs to employers of $20 billion. These costs include Worker's Compensation and medical expenses.

What's more, medical expenses are increasing at a rate 2.5 times faster than benefit costs. Roughly one third of every dollar spent on Worker's Compensation costs are spent on musculoskeletal disorders, with the average cost of every upper extremity case now over $8,000.

Medical bills for the average shoulder injury (excluding surgery) are $20,000 per year. Indirect costs, such as absenteeism, staff replacement, retraining and lost productivity, are 3 to 5 times higher, reaching approximately $150 billion per year.

Building a better workstation is one important step that employers can take to help reduce these injuries and costs. Here are some steps that can be taken.

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Office Ergonomics

Risk Management

C&F RISK ENGINEERS UNDERSTAND YOUR BUSINESS

Since 1822, Crum & Forster has successfully anticipated what's next. Our insurance policy is our promise to help you – the policyholder – in the event of a loss. It gives you a future benefit that you can count on. But C&F offers something more. Our Risk Engineers can help your operation right now.

Before you ever encounter a claim, our Risk Engineers can meet you and identify actual and potential loss sources. We'll conduct a thorough study of your company that includes exposures, hazards and accident trends. Together we'll review your current loss prevention efforts, physical location, loss information and other business records to pinpoint fundamental loss causes. Then we'll create an action plan with practical recommendations to strengthen existing safety programs. We can maintain an ongoing review of it to evaluate progress and effectiveness. We can even conduct a legal exposure review of your company's agreements. Everything we do is aimed at putting into place an effective loss control strategy that works consistently over time to lower your operation's risk of loss.

Our highly specialized Risk Engineers are strategically located throughout the country and have the experience, training and professionalism to provide risk management solutions to meet your business needs and contribute to your success. They have on average more than 20 years industry experience, many with roles dedicated to safety and training. And we invest not only in our insureds, but in the industry. We are members of and participate in many state associations and regularly present at industry conventions and events. These connections and experience are invaluable, and are key in assisting you in developing and deploying a modern, up-to-date safety and training program.

Our solutions are both innovative and established. Whether it's Accident Event Recorders (AERs) to help identify vehicle accident causes and tailor safety training, digital tracking systems, or online video training to assure OSHA compliance, we bring you the latest technology. Matched with the experience of our Risk Engineers, your operation benefits from the engineering awareness built over a lifetime and cutting edge safety science.

Evaluate And Adjust Working Postures

A workstation should be designed or arranged for doing tasks that allow the worker's head and neck to be upright, or in-line with the torso and not bent down or back. The worker's head, neck, and trunk should also face forward and not be twisted and the trunk should be reclined at a posture of 100-110 degrees, not the upright 90 degree posture that is often portrayed. The trunk may lean back into backrest, but not forward.

The worker's shoulders and upper arms should be in-line with the torso, generally about perpendicular to the floor and relaxed. They should not be elevated or stretched forward. Upper arms and elbows should fall close to the body, and not extend outward.

Forearms, wrists, and hands should be straight and in-line, with the forearm at about 90 degrees to the upper arm. Wrists and hands should be straight and not bent up, down or sideways toward the little finger.

Thighs should be parallel to the floor and the lower legs should be perpendicular to floor. The thighs may be slightly elevated above knees.

Feet should rest flat on the floor and supported by a stable footrest.

Employ Proper Seating

Many people complain of low back, or lumbar, pain. Low back pain can be reduced with seating that features lumbar support. Seat width and depth should be appropriate for the worker. The forward edge of the seat should not be in contact with the worker's legs, as this can reduce blood flow to the lower extremities. Defined seat edges can have this effect, too, so rounded seat edges are better for blood flow in the legs. Arm rests should be at the correct height – this is critical to shoulder comfort – and consistent with the posture described in Working Postures (above).

Use The Right Keyboard Or Input Device

The keyboard or input device platform (the keyboard tray) should be stable and large enough to hold a keyboard and an input device. The input device (mouse or trackball) should be located right next to the worker's keyboard so it can be operated without reaching, and the input device should be the right size for the worker's hand.

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Monitor Should Be Positioned Correctly

Monitor position is critical to back and neck comfort. The monitor should be positioned so that top of the screen is at or below the worker's eye level so it can be read without bending of the head or neck either down or back. Research shows the center of the monitor should be about 17-18 degrees below horizontal for optimal viewing. The monitor's distance should permit the worker to read the screen without leaning his head, neck or trunk forward or backward, nor should the worker be required to rotate his head to a side to use the monitor.

The visibility of information on the monitor screen is also important. High screen resolution (as opposed to low screen resolution) is preferred, and if glare is an issue, steps should be taken – such as installation of an anti-glare screen – to reduce it.

The Work Area Should Be The Correct Size For The Worker

Not every worker is the same size, and for that reason, not every work station should be the same size. There should be adequate clearance space between the top of the thighs and the computer table or keyboard platform. Legs and feet should have sufficient clearance space under the work surface so that the worker is able to get close enough to the keyboard or input device.