Safety / Compliance Tips

How Can We Prevent Repetitive Strain Injuries?

Hazards are best eliminated at the source; this is a fundamental principle of occupational health and safety. In the case of Repetitive Strain Injuries (RSIs), the prime source of hazard is the continuous repetitive and static use of muscles.

Other components of work such as the applied force, fixed body positions, and the pace of work requiring the same movements over and over again, are also contributing factors to RSI. Therefore, the main effort to protect workers from RSIs should focus on limiting the repetitive and static patterns of work that require the overuse of the muscles. This can be achieved through the implementation of good ergonomic products to help reduce stress and strain, and by re-designing job stations which may include job rotation (job cross-training), job enlargement and enrichment or teamwork. Where elimination of the repetitive patterns of work is not practical, prevention strategies involving workplace layout, tool and equipment design, and work practices should be considered.

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Repetitive Strain Injury Prevention

Safety / Compliance Tips (cont’d)

Job Design

Job Rotation (Job Cross-Training)

Job rotation / Cross-Training is one possible approach. It requires workers to move between different tasks, at fixed or irregular periods of time. But it must be a rotation where workers do something completely different. Different tasks must engage different muscle groups in order to allow recovery for those already being strained. However, job rotation alone will not be effective in reducing RSIs if not combined with properly designed workstations. And it will not be as effective as long as the high pace of work activities requiring the excessive overuse of the flexor muscles to perform repetitive and or static flexion persists.

Job Enlargement and Enrichment

Another approach is job enlargement. This approach increases the variety of tasks built into the job. It breaks the monotony of the job and avoids overloading muscles.

Teamwork

Teamwork can provide greater variety and more evenly distributed muscular work. The whole team is involved in the planning and allocation of the work. Each team member carries out a set of operations to complete the whole product, allowing the worker to alternate between tasks, hence, reducing the stress to the specific muscle groups.

Workplace Design

The guiding principle in workplace design is to fit the workplace to the worker. Evaluation of the workplace can identify the sources contributing to the onset of RSIs. Proper design of the workstation decreases the effort required of the worker to maintain a working position. Ideally, the workstation should be fully adjustable, providing a worker with the options to work in standing, sitting or sitting-standing positions, as well as fitting the worker's body size and shape.

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Tools and Equipment Design

Proper design of tools and equipment significantly decreases the force necessary to complete the task. Good ergonomic tools can also save a lot of muscle strain. These tools may not eliminate the onset of RSIs, but may increase the time in which it takes to get an RSI.

Work Practices

A properly designed workstation and proper tools, allows the worker to avoid unnecessary motion of the neck, shoulders and upper extremities. However, the actual performance of the tasks utilizing the proper equipment and body positions depends on the individuals.

Training should be provided for workers who are involved in jobs that include tasks that involve repetitive movement or static positions. Workers need to know how to adjust workstations to fit the tasks and their individual needs. Training should also emphasize the importance of rest periods and teach how to take advantage of short periods of time between tasks to relax the muscles, perform specific exercise stretches related to their job tasks, and how to consciously control muscle tension throughout the whole work shift.

Workplace Injury Prevention Programs

Injury prevention programs emphasizing exercise and stretch breaks should be implemented to further reduce the onset of job-related RSIs. Implementing such programs not only increases productivity of individuals but also reduces the costs associated with treating individuals suffering from RSIs.

FOR MORE INFORMATION ON THIS TOPIC OR IF YOU HAVE QUESTIONS,
PLEASE CONTACT THE AEU LOSS CONTROL STAFF 866-AEU-8754

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