

Getting a Handle on Ergonomics

By Alan E. Achatz, CCM, CHE

Ergonomics defined by Meriam Webster's Collegiate dictionary: an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely -- also called *human engineering*.

The Occupational Safety and Health Administration (OSHA) issued an Ergonomic Standard that was subsequently repealed. As you are well aware, this legislation created quite a fervor and will probably take quite a while before we see it resurface.

Is there a need for you to develop an ergonomic program? That is up for you to decide. While OSHA cannot fine you for not having a ergonomic program, you could be cited under the General Duty Clause

“Section 5 (a) Each Employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or likely to cause death or serious physical harm to his employees”

Where do you start to find information on hazards in your operation? Review the copies of your OSHA 200 logs. They have a wealth of information on hazards in your operation. After that, these are some of the fundamental concepts and terms that you may need to understand if you decide to commence your own ergonomic program.

Musculoskeletal Disorders (MSD)

Any disorder affecting the muscles, nerves, tendons, ligaments, joints cartilage, blood vessels or spinal discs.

Action Triggers

As the employer, it is your responsibility to review your worker's jobs to determine if they are exposed to the following risk factors.

Repetition – repeating the same motion every few seconds for 2 hours or working at a keyboard or with a mouse for more than 4 hours daily.

Force – lifting more than 75 pounds at any one time or pushing / pulling 20 pounds for more than 2 hours

Awkward Positions - working with the hands above the head or with the neck, back or wrist bent

Contact Stress – using the hand or knee as a hammer more than ten times an hour for 2 or more hours

Vibration – using high vibration tools (for example chainsaws or jackhammers) more than 30 minutes or moderate vibration tools (jigsaws/grinders) for more than 2 hours per day

Ok, so now you know the most basic terms. Now, how can you devote the time to figuring out how the action triggers apply to each employee?

Six Components to Developing a Successful Ergonomic Program

Management Commitment

Employee Involvement

Work Site Analysis

Medical Management

Training and Education

On-going Evaluation

Management Commitment

Are you ready to get involved? Will you commit the necessary resources to the staff? Don't expect to say we're starting a program and then not apply the funding necessary to start a program. It seems (to our staff) that every time we return from a seminar that we are all fired up ready to start the management program du jour and we don't follow-up! We all recognize that budget constraints are always a concern, yet monies devoted to employee safety will always pay a dividend in the long run.

Employee Involvement

Involve all your employees. Each worker has a different viewpoint on how his or her job is done. Each individual has the knowledge to do their job and they know how to do their job - probably better than any manager does! It can't be stressed enough to involve each employee. Request their input. Recognize that the employees probably have a low cost or many low cost solution(s) on how to improve their job.

Work Site Analysis

This is where the rubber meets the road and is going to be the hardest part of your ergonomics program.

Doing an assessment of each employee's job can seem to be a daunting task.

A great idea is to develop a form that documents the number of times a person has to reach/lift/bend/twist/strike/use a specific tool...

Once you realize what is involved in each employee's job, it then becomes easier to make changes at their workstation.

In addition to using forms, you may consider videotaping the employee doing his/her job. The videotape will educate management and employees alike as to the nature of the job and the various positions the workers assume. This tape can be viewed as a training tool to share ideas as to what is wrong with a job process.

Medical Management

I am not aware of any club that has their own medical department, although it seems there is always an exception to every generalization. So the vast majority of clubs will have to rely on their insurance company and Health Care Provider to become more familiar with all the musculoskeletal disorders that affect your employees.

The first item an employer should review is their OSHA 200 log from the past few years. It is interesting to note that the employees have been informing you of the MSDs that are present in your operation, yet you probably just didn't realize how to properly record the injury!

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Your logs may list the symptoms of the employee's pain – numbness/soreness/tingling/... in the shoulder/neck/wrist/back, but until the person recording the injury is trained to further delve into the particulars, you might not realize the problem is an irritated rotator cuff from the employee working in an awkward position.

Training and Education

Now that the standard has been repealed there are no deadlines to follow. Some concepts you may want to do are:

Educate all employees about common MSDs including signs and symptoms, importance of reporting MSDs signs and symptoms as soon as possible.

How to report MSDs.

Risk factors and work activities associated with MSD hazards.

Share a brief description of OSHA's repealed ergonomic standard with the employees.

What to do once a MSD is reported -

Determine if MSD or signs or symptoms is a MSD incident (you may want to consult with a health care professional to make determination). A MSD incident means the MSD is work related. Determination factors include days away from work; medical treatment beyond first aid, signs or symptoms that last for 7 or more consecutive days after the MSD was reported.

Employer's responsibilities once a job meets an Action Trigger (Repetition, Force, Awkward Positions, Contact Stress, Vibration) -

Assign responsibility, resources and authority to set up and manage your ergonomic program.

Ensure policy and practices encourage employee participation in the program.

Set-up a system to report and respond to reported MSDs.

Involve employees with the development, implementation and evaluation of the ergonomic program

Observe all employees who do the same job where a MSD exists.

Conduct a job hazard analysis.

Control job hazards or fix them to the extent possible.

Provide training to determine if a job meets the action trigger.

Provide training on how to setup and manage an ergonomic program. Training will include MSDs signs, symptoms and hazards, reporting MSDs, the ergonomics program and how to implement and evaluate controls used to address hazards.

Provide follow-up training

Provide (at no cost to the employee) access to a health care professional evaluation and follow-up for any MSD incident. Also the health care professional is to determine if any work restrictions are necessary.

On-going Evaluation

After you have started your program, you'll have to set up a system to monitor what you're doing.

Some of the questions you'll be able to ask yourself and your employees are:

How are we doing?

Are we doing this right?
What is the employee's reaction?
What is the employee's feedback?
Do they like the changes that have been implemented?
Or do they want different/additional changes?

What you'll have done by asking these questions is establish an open structure to allow for full employee involvement. The message you will have sent is that you care for your employees; realize that they have the solutions on how to do their job better; recognize (in some cases) that there are low cost solutions to help them do their job; you will have increased their feeling of value to the company and also developed their self-esteem.

Obviously, a quality ergonomic program will have regular on-going training and employee participation.

However, once you make the commitment to start a program, allow your employees to share their thoughts, pains and concerns – you had better be ready for a **great increase** in the number of entries on your OSHA 200 log. Why will you have increased entries? The employee will now know what MSDs are and how to report them. Does this mean that your Worker's Compensation costs are going to increase? From my understanding – YES!

Yet realize even though your costs may increase at the beginning, there have been companies that have lowered their worker's compensation claims by 80%!

Where do you go from here?

I would break the different components of the ergonomic program into their various elements and look at each facet.
As management – you have to get involved and commit the necessary resources.
Get your employees involved and listen to their feedback.
Train your frontline supervisors to be receptive to the employee's concerns.
Get your health care provider, insurance company or a consultant involved educating you and your employees on the various MSDs and action triggers.
Assess your employee's workstations.

A closing thought

Before you summarily dismiss the concept of developing an ergonomics program, you may consider asking the question, "If I can make my workplace safer and eliminate hazards; will I be able to keep all my current employees?" This question becomes even more important as the labor market for qualified employees continues to shrink.

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