

## **Chiropractic, Ergonomics and OSHA's Proposed Standards for WMSD (Work-Related Musculoskeletal Disorders)**

Because work-related musculoskeletal injuries are the leading cause of lost workdays and workers' compensation costs, OSHA is currently working on ergonomic standards for small businesses. According to the Bureau of Labor Statistics, WMSDs account for 34% of all lost workday injuries and illnesses. In 1996, there were 647,000 lost days attributed to WMSDs. OSHA has found WMSDs to account for more than \$15-20 billion dollars in workmens' compensation costs. Leading the list were carpal tunnel syndrome cases, which averaged more days away from work (25) than any other workplace injury.

Many small businesses are worried about the added costs that an ergonomics standard would create for their business. There is a tendency in industry to look at safety and ergonomics standards as a forced mandate rather than an opportunity to decrease the potential for employee injury. Studies have demonstrated that reducing workplace risks and exposure through ergonomic programs is the most effective way to protect workers from WMSDs. Industries and small businesses generally consider ergonomics to only be mechanical changes which they associate with high costs to modify. The thought of changing entire lines or buying new and expensive equipment creates a fear and distrust for ergonomic solutions. They often lack information on the human ergonomic factors or changes that can be made with their existing equipment to prevent injuries. This is where the doctor of chiropractic can interact with the small business owner to assist them with WMSDs.

Chiropractic and ergonomics have always been a natural match. Doctors of chiropractic are trained in proper body mechanics and assessing for improper body positioning and motion. By using this body mechanic knowledge of bringing the body to neutral positions for work, the doctor of chiropractic can provide educational programs for small businesses on ergonomics.

Getting started can be challenging. The doctor of chiropractic needs to initially define the level of interaction with industries that his/her training allows. It can involve teaching the ergonomic programs or graduating to job evaluations and ergonomic studies. Each level of interaction requires different degrees of knowledge and, more importantly, time commitment. No matter what level of industry you choose to interact with, there are fundamentals to getting started. First and foremost, your purpose has to be to help the industry. As simple as that may seem, far too often we have seen the doctor's purpose for getting involved with industries to be for self-interests only.

The only way to get practical experience beyond your education is to get out there and see as many industries as possible. As with each patient, each industry has similarities when you first look at them, but as with each patient, you must customize each history you take to develop a treatment plan unique to the industry's needs. Each time you get the opportunity to tour an industry, make the priority of the tour to gather as much information about the industry's needs as possible. Then take the time to put

together an assessment of needs for the industry you have toured. From that, develop a strategy to address their needs.

Many, if not all, of the industries you tour in the beginning will not give you a chance to present your program. In actuality, you had just invited yourself to tour their industry and learn what the different job demands and functions are. Use these early contacts with industry to develop your analytical skills. By touring as many industries as possible, it will help develop your vision as to what aspect you would like to play with industries. If you think you can wait until an industry asked for help before you start preparing, you will wait a long time. With experience and knowledge comes confidence, which industries will sense, and the process of becoming involved is much easier.

The easiest way to get started is to use your current patients to access industries. Your purpose at first will be to gather information about the patient's job to help with a development of your treatment plan for that patient. As you become more skilled with the process of evaluating jobs, you can, if the opportunity arises, offer to analyze different jobs throughout the plant.

After you feel comfortable with your skills in industry, you should be able to move to the next level to provide educational seminars on ergonomics. You can use the new OSHA WMSDs proposal as a base for your approaching industries to teach about ergonomics. Remember when you teach ergonomic classes to include both mechanical factors and human factors of ergonomics. By doing this, you can provide beneficial solutions for workers and industries that are very cost-effective. The difference can be explained in the following example.

If you look at how office workers sit in their chairs while they work, you will find many different positions. The mechanical factors would include the type of chair provided to the worker and the level of their workstation. You would need to determine the ability of the chair to change height and seat angle or level of back support. Does the chair have arm rests, and are these helpful or in the way? All analysis centers on the functions of the chair. The human factors of ergonomics would relate to how the worker or office employee uses the chair. Do they adjust the height and seat angle? Do they sit with their foot under one side of their gluteus maximus? Do they slouch in the chair or lean to one side? Do they actually use the functions of the chair to their best advantage?

By looking at both mechanical and human factors of WMSDs, you can provide effective educational programs for that industry. Using your working knowledge of the different analysis from your patients' job site tours as described above, you can create customized ergonomic workshops or seminars to assist the specific industry in your city.

To gain more knowledge on ergonomics and industrial presentations, we recommend taking postgraduate education classes at chiropractic colleges. Getting started is always the difficult part for any of us as we enter the industrial consulting field. Remember that it takes time to gain experience. Be patient and give yourself time to develop confidence and a working relationship with the industries in your area. Errors of doing too much too soon or going in with self-interests can create long-term problems for you. Industries are like elephants -- they have long memories. Create a good one, not a bad one.

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