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Complete Health Environmental and Safety Services

Oh, My Aching Back!

By Janet Keyes, CIH, CHESS, Inc.

Across the board, the most expensive workers' compensation claims are musculoskeletal disorders (MSDs), the safety geek's way to say strains, sprains, and all those other hard-to-diagnose, hard-to-treat ailments caused, most often, by repeated wear and tear. Human bodies wear out just as readily as car bodies. While human bodies can often repair themselves, unlike cars, the repair doesn't happen instantaneously and is rarely as sound as the original. And not everything can be repaired.

Think of a set of brakes on a car. If you keep braking, you'll wear out the brakes. Brake hard and you wear them out faster. Ride the brakes, and they deteriorate even faster. No problem; mechanics can replace them. Now think of your back, or your ligaments and muscles. Keep on using them, and they'll wear out. Strain them, and they'll wear out faster. Keep straining them, and they deteriorate even faster. Our body mechanics such as doctors, physical therapists, and chiropractors try to repair them. Replacement isn't yet an option.

Preventing those work-related MSDs is a much better approach. Many of the measures you can take to prevent MSDs in your shop are not expensive and don't take much effort. But they do take thought. If you want to reduce the risk of those expensive and disabling strain/strain claims, you first need to think about what causes them.

The major risk factors in vehicle repair are:

- Repetition, when people do the same motion again and again, such as turning a screwdriver, spraying back and forth, hammering again and again, or moving a computer mouse repeatedly.
- Excessive force, from trying to loosen a rusted bolt, or pushing hard on a wrench handle with the palm of one's hand, or vibration from high impact tools
- Awkward positions. This could be from working near the ground, reaching above shoulder level, trying to fit a tool into a small space, or bending over an engine compartment. Even standing on concrete all day increases the risk.

So what types of changes can you make to reduce the risk? Look at tasks, and see where you can make the work easier. When work takes less effort, people are less likely to be injured. A bonus: they also can get more work done.

Look at the height of work. The ideal is to keep work between the shoulders and the waist and close to the body. You could move the work to a comfortable height for the worker, or you could move the worker to a comfortable height for the work. Using vehicle lifts or jack stands is an example of moving the work. Either is a good option, providing you take care that the car

won't suddenly drop (jack stands correctly placed, vehicle lifts with safety latches). Providing rolling stools or portable scaffolds are examples of moving the worker. As with lifts and jacks, if you use scaffolding, you need to make sure it is in good condition and set up correctly.

Look at where people work. If they're standing all day, provide ergonomic mats in the areas they stand most often. If they have to kneel, provide mats or better, knee pads. It takes a bit of time to get used to wearing knee pads, but once people are used to them, they usually find it easy to just leave them on for the day.

Look at what people have to move and lift. If they're lifting anything heavy or awkward, such as tires or car parts, can you provide aids to make lifting those easier? Examples of aids include ramps, lift tables, dollies, and hoists. Evaluate where materials are stored. Keep heavy materials near ground level. Store often-used materials at waist height. Arrange the work to make it easier.

Look at the tools used. The best ones fit the worker's hands, are designed to be quiet and with low vibration, and to provide the force to do the job easily. Air-powered tools reduce the manual force required, but they can cause excessive vibration and noise. Encourage the use of tools with vibration dampening built into the design. Consider providing antivibration gloves. Discourage employees from using their hands as hammers. Encourage employees to keep tools in good condition, as that reduces strain.

A lot of required safety measures were put in place because of tragedies and disasters – the requirements to have accessible exits, for instance, came about because people died when they couldn't escape fires. Their return on investment is zero unless you avoid that tragedy. Making changes to reduce strains and sprains is different. The return on investment for these is nearly immediate and significant.

If you make work easier to do, people become more productive. It doesn't take an expert to evaluate opportunities. Instead, work with your employees to evaluate their jobs. Where do they find the work physically harder? What's awkward, or repetitive, or hard to reach? Change those, and you change the risk of strain and sprain injuries.

If you have questions about ergonomics, work-related musculoskeletal disorders, OSHA standards, or other safety issues, contact CHESS at 651-481-9787; toll free at 877-482-4377, or carkey@chess-safety.com.

This article is intended to provide general information (not advice) about current safety topics. To discuss your specific concerns and how CHESS may help, please contact CHESS at 651-481-9787 or chess@chess-safety.com.

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