



# Reducing MSDs for mechanical and sheetmetal workers

Musculoskeletal disorders (MSDs) are injuries that affect our muscles, joints, tendons, or spinal discs. They're caused mainly by forceful exertion (lifting heavy material, etc.), awkward posture (reaching overhead, twisting, etc.), repetitive movements (hammering, etc.), and vibration.

For Rate Group 707 (Mechanical and Sheet Metal), MSDs accounted for 41 per cent of all lost-time injury claims in 2011; that's one of the largest percentages of any construction rate group. Recently we interviewed Blair Allin, a trainer with the Boilermakers Union Local 128. He gave us some helpful tips for reducing MSDs.

## 1. Conduct risk assessments

Whenever you enter a work area or a room, take a few minutes to look around and do a quick 360-degree rotation to take in all the hazards that may be there. Whenever possible, eliminate the hazard completely. If that's not practical, consider other ways to control it. Remember the acronym RACE. It stands for:

- Recognize the hazard
- Assess the hazard
- Control or Eliminate the hazard

## 2. Rotate workers through different tasks.

To reduce repetitive stress injuries (i.e., MSDs), have workers do different kinds of work throughout the day. For example, a worker using a jackhammer can only be exposed to vibration for approximately two hours a day. Rotate this worker with a signaller. This

will not only help the jackhammer operator but will also help keep the signaller from losing concentration.

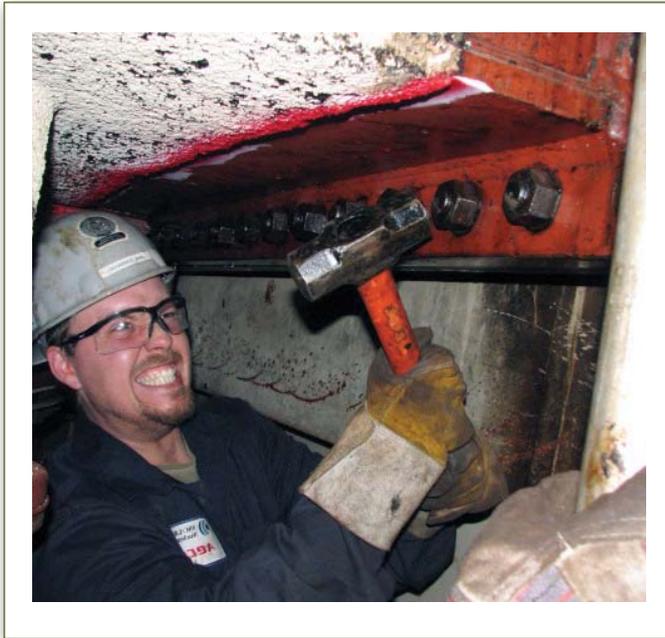
For larger firms, this type of work rotation may be relatively easy, but for smaller firms with only a couple of employees who do the same job, it can be more challenging. However, even a small firm can, for example, alternate two bricklayers between laying bricks and mixing mortar.

**Don't forget:** For each new task you ask workers to perform, make sure they have the proper personal protective equipment (PPE) and know the proper safe work procedures for the job.

## 3. Reward workers who work safely. Penalize those who don't.

It's important to make people accountable for their actions. We often punish those who work unsafely, but we don't often reward those who demonstrate positive health and safety practices. For instance, if a worker does a warm-up and stretch or eats healthy food at work, give him or her a gift card.

Get creative! One mechanical company instituted "Safety Bingo." Workers were given a card containing safety-related words or phrases instead of numbers. Each day, a word and a safety-related message were sent to the job foreman to pass along to the workers. The first worker to fill out the card won a prize. However, any workers who committed a safety or driving violation lost their card for the rest of the month.



#### 4. Get a spring tune-up—for your body.

Construction is often seasonal work: you can be busy in the spring, summer, and fall but have a lot of downtime during the winter. After being inactive for a few months, you are more prone to injury when you go back to work in the early spring. If you've been on the couch for months and suddenly you're swinging a hammer all day, you'll feel it. That's especially true as you get older—your body doesn't recover as easily. So before you go back to work, tune up your body and get it ready for the work ahead.

#### 5. Warm up and stretch.

Most people would never play hockey, basketball, or golf without warming up and stretching. If they do it for recreational activities, why not before starting work?

Remember that your body is your most important tool. If it's not functioning properly, you can't do your job. Three minutes is all you need to limber up and prepare your body for the rigours of physical work you'll encounter for the day. Do some stretching exercises while you're waiting for your work permit or at the jobsite when you get out of your truck in the morning.

Consider what part of your body you'll be using for a particular task and stretch it out. For example, before lifting a ladder off the truck, do some shoulder stretches. If you're painting, stretch your wrist and shoulders. If you're lifting cement blocks, stretch your legs and back.



#### 6. Change the safety culture.

Health and safety comes from the top down. If the employer makes it a company-wide safe work practice to stretch at hourly intervals, workers will be more inclined to do it. Employers can set an example by stretching during meetings at the office.

Because construction work can sometimes be transient, health and safety practices can be inconsistent. If you go from a safety-conscious company to one where safety is less of a concern, try to influence your new employer to adopt some of the practices from your previous employer. If your new employer does not work safely, consider finding work with another company.

To help prevent MSDs at your workplace, it is important to involve everyone. Employers should teach their workers about MSD risk factors and provide them with proper materials-handling equipment and tools. Workers need to follow the employer's safe work practices and apply the ergonomic concepts they learn to their daily activities.

By following these tips and implementing these health and safety initiatives, firms can reduce MSDs in their sector. It begins with management commitment and depends on communication and participation; that's the key to a successful MSD-prevention plan. IHSA has training courses, safety talks, and other resources that can help. Visit the Musculoskeletal Disorders and Ergonomics topic page on our website at [ihsa.ca](http://ihsa.ca).

Note: Statistical data was provided by the Workplace Safety and Insurance Board (WSIB).