



## Workplace Musculoskeletal Disorders

Musculoskeletal hazards are common and are present across many industries, including construction, manufacturing, agriculture, and more. Caused by vibration, repeated movements, and awkward posture, these hazards can lead to injuries that cause chronic pain throughout the body, as well as illness, injuries, and disorders.

According to [The Bureau of Labor Statistics](#), work-related musculoskeletal disorders lead to approximately 31% of nonfatal occupational injuries in 2015 (356,910 cases), with a median of 12 days away from work for a MSD injury. These injuries are significantly costly to employers, not to mention they reduce worker productivity and morale. Having a workplace ergonomics programs allows employers a chance to detect problems and develop solutions, preventing losses in productivity and quality. By focusing on preventative safety measures, employers will see lower rates of absenteeism and lower worker compensation premiums.



Additional Info: [Ergonomics and Musculoskeletal Disorders](#);

## Developing a Workplace Ergonomic Program

### Step 1: Identify Risk Factors

Examples include awkward postures, overhead work, twisting and carrying loads, wrist deviations, poor shoulder or wrist posture, lifting bulky loads, and vibration. Evaluate the level of risk by the intensity, frequency, and duration of the activity.

### Step 2: Involve and Train Management and Workers

Trainings should include ergonomics awareness, job analysis and control measures, as well as problem solving or hazard control.

### Step 3: Collect Health and Medical Evidence

Using records and evidence, determine the scope of the problem. Compute the incident rate and prevalence rate of MSDs and conduct interviews and symptom surveys.

### Step 4: Implement your Ergonomic Program

Determine your approach to control work-related MSDs. Using the Hierarchy of Controls, the five approaches are elimination (physically removing the hazard), substitution (replacing the hazard), engineering controls (isolating people from the hazard), administrative controls (changing the way people work), and finally the use of personal protective equipment.

### Step 5: Evaluate your Ergonomic Program

Check in with workers after one week and again after one month to ensure the controls you implemented reduce or eliminate risk factors. Allow for an adjustment period.

### Step 6: Promote Worker Recovery through Health Care Management and Return-to-Work

There are many ways to promote worker recovery and musculoskeletal health. Employers can educate and train employees to recognize and report signs of MSDs. They can also modify jobs to accommodate employees with MSDs. Employees can engage in safe work practices as well as follow the workplace safety and health rules in place.

### Step 7: Maintain Management Commitment and Employee Involvement



## Avoid Injury While Raking Leaves

Did you know there is a proper way to rake leaves to reduce risk of injury? We don't often think about ergonomics when doing everyday activities, but it can be just as important as workplace ergonomics. Improper form can lead to injuries such as strained back muscles or twisted knees.

- Take time to warm up and stretch your muscles to prepare them for the work ahead. Focus on your neck, back, hips, torso, wrists, and shoulders.
- When raking, hold the rake close to your body and place one hand near the top of the rake for leverage. Place your front foot forward and keep your legs slightly bent with weight distributed evenly in the center. Avoid bending forward at the waist and twisting your body.
- Don't forget to use proper lifting mechanics when hauling bags of leaves. Those bags can get heavy when full of wet leaves. Keep your back straight and bend with the knees and hips. In other words, "lift with your legs and not with your back".
- Take breaks to rest and rehydrate. It's tempting to power through the job of raking, but raking is strenuous, and your body needs breaks. If you are tempted to work for long periods, set a timer on your phone to remind yourself to rest. You should take a 10-15 minute break for every hour of strenuous activity.

## Tips for Working from Home

Due to the pandemic, a large part of the workforce is now working from home. To help workers with the adjustment, the University of Iowa human resources office put together a [Remote Work Ergonomic Toolkit](#).

Many people working from home now are faced with the dilemma of creating an appropriate space to do so. It is important to establish a dedicated workspace where you can separate work life from home life. Avoid working at the kitchen table or sitting in your bed if possible. Set up a worktable in the corner of your bedroom or living room and make it work-friendly by removing distractions.

Working at home leads to a large increase in the amount of time sitting. It is important to have the right work surface, chair, computer positioning. Your sitting and working posture affects how you feel, how much energy you have, and how efficiently you work.

To properly adjust, sit all the way back in your chair and lower your seat until your feet make good contact with the floor. Your knees should be bent at about a 90-degree angle. Allow the backrest to support you, minimizing the effort it takes to maintain good posture. If your chair has an adjustable lumbar support, you should adjust it to be in the small of your back.

Your keyboard and mouse should be about 8" above your chair height. You want your elbows to be at about a 90-degree angle. If you don't have an adjustable keyboard tray, you can raise your chair and use a footrest.

For more information on remote work ergonomics see the [University of Iowa's resource page](#).

**Looking for more resources?** [Remote Work Ergonomic Toolkit](#); [Leave Raking Back Pain Behind](#); [Safety for Landscape Workers](#); [Safe Driving & Cell Phone Usage](#)



## October is Distracted Driving Awareness Month

More than 2,800 people in the U.S. died in distraction-related crashes in 2018 alone. Let's face the facts, distracted driving can be deadly. Show your concern for safety. Employers can demonstrate to employees that they take safety seriously by having a safe driving policy that addresses distracted driving.

Visit [safety.nsc.org/ddam](http://safety.nsc.org/ddam) to learn more about the risks of distracted driving and how you can help keep our roads safe.

## Welcome to Our Newest Heartland Center Trainees

Megan Laffoon - Agricultural Safety & Health  
Liam Metzcus - Agricultural Safety & Health  
Anna Proctor - Agricultural Safety & Health  
Amanda Spear - Agricultural Safety & Health  
Kelsey Strandberg - Agricultural Safety & Health  
Ashley Anderson - Industrial Hygiene  
Rebecca Hertges - Industrial Hygiene  
Jacob Johnson - Industrial Hygiene  
Skylar Romasanta - Industrial Hygiene  
Katelyn Tincher - Industrial Hygiene  
Hannah White - Industrial Hygiene  
David Best - Occupational Safety

## Upcoming NIOSH ERC Webinars

### Minnesota's Safe Patient Handling Act: Policy, Practice, and Research

October 21, 2020 | 2 PM - 3 PM Central | [coeh.berkeley.edu/20erc-webinars](https://coeh.berkeley.edu/20erc-webinars)

This session presented by the University of Minnesota and Minnesota Department of Labor and Industry will provide a history of the Minnesota Safe Patient Handling Act, a law designed to protect health care workers from injuries caused by lifting and transferring patients. Learners will explore results from a policy evaluation that measured changes in patient handling injuries before and after the law was enacted. The evaluation also identified characteristics of nursing homes with high injury rates and assessed whether the effects of the law were modified by staffing or worker retention levels. Resources developed by Minnesota to support nursing homes in implementing effective safe patient handling programs will also be shared.

### Biomonitoring and Risk Assessment: Essential Concepts & Emerging Technology

November 10, 2020 | 2 PM - 3 PM Central | [coeh.berkeley.edu/20erc-webinars](https://coeh.berkeley.edu/20erc-webinars)

Biological monitoring is a method for capturing information on cumulative exposures and health related effects of chemical and nonchemical stressors. This presentation will examine the rapidly evolving state of biomarker research and its application in risk assessment using polycyclic aromatic hydrocarbons (PAHs) exposure as an illustration. Dr. Reichard will also describe the adverse outcome pathway (AOP) framework, and emerging technologies that hold promise for non-invasive human monitoring and high-throughput chemical screening to reduce the need for animal testing.



## Continuing Education Programs

Check out the Heartland Center's online events calendar at [HeartlandERC.org](https://HeartlandERC.org) to keep track of our upcoming continuing education events.

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