Ergonomics Training Game Plan



Musculoskeletal disorders (MSDs), also known as repetitive strain injuries (RSIs) or ergonomic injuries, are the leading cause of lost-time work injuries and workers' compensation claims. Here's a script you can use to deliver effective training to your workers on MSD hazards and how to prevent them.

Get Workers' Attention

Start out by telling workers that MSDs don't end lives; they just destroy them. Explain that MSDs are more severe than normal work injuries because they can:

- Disable you.
- Inflict horrible pain that lasts the rest of your life.
- Make it impossible for you to ever work again.
- Destroy your ability to do even simple things like walk, grip a steering wheel, brush your teeth, or hold a spoon.

Make It Real

Explain that MSDs often lead to crushing poverty, depression, and even suicide. Share some of the heartbreaking stories of real-life victims. Better yet, let the victims tell their own stories in their own words. Here are three personal victim accounts that humanize the perils of MSDs.

Phil's Story

"My name is Phil Ritter. My story begins when I was a 26-year-old site coordinator at a construction site where I often operated jackhammers.

"One day, I noticed a tingling at the very tip of my fingers like the stabbing of needles. The pain grew worse and worse. I couldn't sleep, hold a newspaper or a fork. I had to drive my truck open-handed to get a grip on the wheel. I was taking 22 aspirins a day.

"I was diagnosed with RSI (repetitive stress injury) and carpal tunnel syndrome.

I had to have surgery. It was a long recovery. I couldn't even put my socks on for the first three weeks.

"But I turned out to be luckier than most. Six months later, I went back to work and learned how to protect myself from MSDs. I learned to relax the hands so as not to grip the tools too hard, to protect myself from vibration, and so on.

"And I learned something else. There is a safe way. Victims of MSDs are too often told that it's all in their mind. This is not true. My advice to the workers out there is to learn the safe way and to ask somebody if they're not sure."

Henriette's Story

"My name is Henriette Barclay. I'm 60 years old. I am married. My husband, Harlan, and I have no children.

"I worked for a national drug store chain as a shift supervisor, stocker, and pretty much anything else that was needed. One day I was helping to unload a truck. When I picked up one of the crates, I heard a pop in my right shoulder. After 15 minutes, I couldn't move. I was in extreme pain. I had torn my rotator cuff.

"I have had three surgeries, and my injury is still not corrected. The last MRI showed a tear that had been there all along, but had not been repaired.

"I've lost 3 years of income, as I'm unable to work because of my shoulder injury. My shoulder is getting worse, instead of better. I used to love to do Country Dancing, but I can't reach my arm over my head any long. I used to knit and crochet, but now I get so frustrated that I usually end up crying. I can no longer reach, pick up anything over 1 pound, do the laundry, or even blow dry my hair."

Gary's Story

"My name is Gary Woodford. I'm 49. I worked for 26 years for C&S Propellers assembling and installing propellers on military and civilian aircraft. My job required me to lift propeller assemblies that weighed over 100 pounds.

"One day, I was lifting a propeller assembly dome, weighing 150 pounds, for a C 130 military plane into place so I could install it. I felt a sharp pain in my back and had to stop. I called my co-worker for help. I had injured two discs, which were pressing on my spinal cord.

"My life hasn't been the same since. I can't hike, camp, run or do anything active."

Explain What MSDs Are

Having set the tone, explain what MSDs actually are. Tell workers that the things they do at work every day, like lifting objects, reaching up to stack an object and squeezing the handle of a tool, put a strain on muscles, nerves, bones, joints, back, shoulders and limbs. Working these body parts too hard or in the wrong way can cause serious damage and result in chronic back pain, carpal tunnel syndrome, strains, sprains, and other MSDs.

Explain How MSDs Happen

Explain that MSDs can be either traumatic or cumulative.

Traumatic injuries happen in a single incident, like wrenching your back when lifting a heavy object.

Cumulative MSDs sneak up on you because they build up gradually as a result of repeated stress over a period of time, like back injuries from lifting heavy objects day after day for 10 years.

Describe the 3 Risk Factors of MSDs

Tell workers that their risk of getting an MSD depends on three sets of risk factors:

1. **General risk factors** include:

   - Duration—how long exposure to a strain or stress last.
   - Frequency—how often you're exposed.
   - Intensity—how much the exposure strains your body while it lasts.

2. **Job-related risk factors** are associated with performing certain jobs or tasks, including:

   - Lifting and moving heavy or bulky objects.
   - Reaching above, below, or across your body.
   - Prolonged squatting, kneeling, or standing.
   - Repetition—doing the same physical task over and over again over a consecutive period.
   - Tightly gripping tools or other objects.
   - Contact stress—tasks that involve physical contact with hard objects or edges.
   - Vibration.
   - Working in the cold.

3. **Individual risk factors** are physical characteristics that can make a person less capable of withstanding strains and thus more vulnerable to MSDs, such as being:

   - Over age 45.
   - Female.
   - Out of shape.
   - Overweight.
   - A smoker.
   - On certain kinds of medications.

Explain How to Control MSD Hazards

Describe the measures your company uses to protect workers from MSD risks, including:

- Engineering controls like lifting devices, ergonomically designed tools or work stations, etc.
- Administrative or work controls like safe work procedures such as for lifting heavy objects, rotating workers in and out of high-risk tasks to prevent continuous exposure, regular rest, and recovery breaks, etc.
- PPE and safety equipment like anti-vibration gloves or mats, wrist rests on computer keyboards, etc.

Describe the Warning Signs of MSDs

Make sure workers recognize that MSDs can sneak up on them and describe the signs and symptoms they should look for, including:

- Aching joints or muscles.
- Muscle weakness.
- Fatigue.
- Tingling or numbness in fingers, toes, hands or feet.
- Swelling, inflammation or redness.
- Stiffness or difficulty moving.
- Inability to use hands or wrists to do certain basic things.
- Burning sensation.
- Stabbing or shooting pain, especially at night.
- Reduced grip strength.

Tell Them What to Do If They Have MSD Symptoms

Tell workers to immediately notify their supervisor or manager if they experience any of the above signs or symptoms. Explain that early diagnosis and treatment are crucial when dealing with MSDs and that waiting often makes the injury much worse. Reassure them that their complaints will be investigated and that they won’t suffer any kind of punishment or reprisal for bringing them.