

# MSD Prevention Guideline for Ontario

## Webinar: *The Quick Start Guide*

November 6<sup>th</sup> 2018

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## BACK. SHOULDERS. NECK. HANDS.

Happy and Healthy at Work



### Store it off the floor

- Store heavy objects between knee and shoulder level. Waist level is best.
- Store items off the floor to minimize bending.
- Use tables, benches or stands to get work off the floor.
- Use carts or equipment to move heavy items.



### Keep it close

- Perform tasks close to your body.
- Avoid leaning and stretching forward to reduce stress on your lower back.
- Avoid side reaches that twist the spine.
- Your smart workstation: keep common tasks close; less common tasks out of the way.



### Hands below head

- Use a stool, platform, ladder or hoist so work is below head/shoulder height.
- Choose lighter tools and materials for overhead work.
- Use a bit extender for drills/screw guns.
- Find other tools/assists to limit overhead work.



### Look straight ahead

- Position your work and equipment to keep your gaze straight ahead.
- Position your work below eye level to align your vision with the task.
- Arrange your workspace so common items are centred to your body.
- Remember to give your neck a break.



### Get a (good) grip

- High force work: power grip (full hand). Low force, precision work: pinch grip.
- Choose a tool and grip that puts your wrist in a strong, natural posture.
- Choosing tools: good shape for the task, fits your hand, edges don't dig in.
- Power tools with low vibration and no "kickback" are best.



### Change it up

- Include "micro breaks" in your tasks for body recovery and fatigue prevention.
- Fatigue can occur during long duration efforts and repetitive tasks.
- Rotate different tasks to provide "working rests".
- Tasks that have MSD hazards and little recovery time have a high priority for change.

Identify and control workplace hazards. **Work shouldn't hurt!**

Work  
shouldn't  
hurt

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Excellence for the  
Prevention of  
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For more info visit: [cre-msd.uwaterloo.ca](http://cre-msd.uwaterloo.ca)

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# Context

- The Ontario MSD Prevention Guideline and Toolboxes were developed by the Ontario Health and Safety system.
- They were originally developed under the auspices of the Occupational Safety and Health Council of Ontario (OSHCO) in 2005-6 and published in 2007/8.
- They were overdue for review
- Building on this previous work, CRE-MSD has led a project to develop a new Ontario MSD Prevention Guideline in conjunction with Ergonomics Integrated Planning Advisory Committee (EIPAC) and multiple workplace stakeholders



# The overall goals of this project are to:

1. Evaluate the current Guideline, determine workplaces' needs for prevention and synthesize best practices with respect to MSD prevention;
2. Develop the new prevention guide content and selected draft materials;
3. Test the content of the new guide and materials with workplaces;
4. Prepare content for guideline and sample material;
5. Website Development Phase 1: Templates, navigation;
6. Website Development Phase 2: Development of graphic resources, population of the website with content developed and user testing.
7. Continue to develop the website

# How we got and are getting input

1. Environmental scan
2. Multiple meetings with multiple stakeholders,
3. CRE-MSD web survey focussed on small and micro businesses<sup>1</sup>
4. Interviews with small and micro businesses during SSOP
5. Interviews with key stakeholders
6. Feedback from a CRE-MSD workshop in June 2017
7. Reviews and original research:  
“Participative Ergonomics and OHSMS”; “Barriers to Ergonomics Change”, “Low Back MSD Risk Factors”; “Micro and Small Businesses and MSD”; “Test of Messages for Low Back Pain in Small Businesses”

*<sup>1</sup>We also incorporated the findings of the web survey administered by the Health and Safety System (EIPAC) on the needs of business to make ergonomics changes.*

# User input: Main findings and user needs

1. *Small businesses* are a major underserved community.
2. There is a need for separate approaches for *small/micro*, smaller and larger businesses.
3. MSD prevention should be better integrated into business processes using common language and processes.
4. Participation of workers is very important for OH&S, especially for MSD.
5. Current standards (CSA, ISO) are too complex. This makes them in-accessible to most organizations.
6. Be solutions oriented. Also don't assume familiarity with OH&S concepts and language

# Challenges for MSD prevention in micro/ small business

- **Higher exposure** to occupational hazards in comparison to larger corporations.
- **Higher rates** of fatal/serious injuries and the highest rate of fatalities across all industry sectors.
- They have more difficulties controlling exposure to hazards at their workplaces.
- Characteristics of and the unique situation of small businesses result in a **lesser ability** to address MSD [and OHS hazards in general].

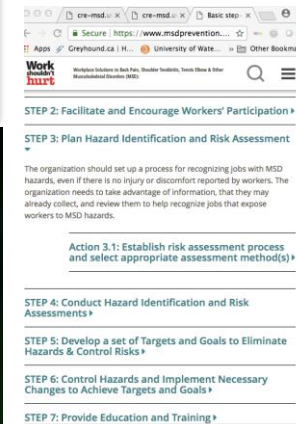
# Three MSD Guideline versions:

To provide relevant information and resources to workplaces with different sizes and H&S capacity three versions of the Guideline were created.

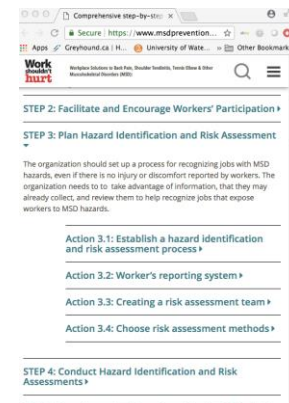
## Quick Start Guide



## Basic Guideline



## Comprehensive Guideline



# Web Site Phase 1

To satisfy users' needs we designed the website to give:

1. Multiple ways for users to find relevant resources and information
  - Multiple **entry** points: By stakeholder; By level of detail; By process or risk assessment
  - *Video on home page*
  - Searchable resources
  - Help in selection of MSD assessment tools
2. Incorporation of current Guideline resources
3. *Video/graphics of hazards*
4. AODA<sup>1</sup> and WCAG 2.0<sup>2</sup> compliant
5. Responsive

<sup>1</sup>Accessibility for Ontarians with Disabilities Act (AODA) and <sup>2</sup>Web Content Accessibility Guidelines (WCAG) 2.0  
*Italics: Phase 2*





## What's New?

Welcome to the *BETA* site for the new MSD Prevention Guideline. We are working hard to develop it further. Look out for videos of MSD Hazards, sections on MSD Controls and for case studies.

GO

# www.msdpreservation.com

The screenshot displays the homepage of the **Work shouldn't hurt** website. The top navigation bar includes links for **Prevent MSD**, **Quick Start Guide**, **Deal with an MSD**, **MSD Risk Assessment**, and a search icon. A left sidebar menu lists: **About MSD** (highlighted with an orange circle), **Prevent MSD**, **Deal with an MSD**, **Stakeholders**, **MSD Risk Assessment**, and **Resource Library**. The main content area features the heading **MSD Prevention Guideline for Ontario** and the subtext **Workplace solutions for back and other musculoskeletal disorders shouldn't hurt**. A video player is embedded, showing a video titled **MSD Prevention Guideline for Ontario** with a duration of 00:34:08. A **Watch Video** button is located below the player. The video player interface includes a progress bar, volume control, and a 540p resolution indicator.

# About MSD

Types of MSD Centre of Research x YouTube

Secure | <https://www.msdpreservation.com/Types-of-MSD.htm>

Apps Greyhound.ca | H... WSPS - Pictogram... Netflix Facebook - Log In... Gmail Outlook Weather Wireless Mac Scre... Other Bookmarks

About MSD Types of MSD Work and MSD Hazards Workplace Prevention of MSD

## Types of MSD

Work shouldn't hurt

About MSD

Prevent MSD

Deal with an MSD

Stakeholders

MSD Risk Assessment

Resource Library

Legend

- Tendon/Ligament
- Muscle
- Blood Vessel
- Nerve
- Bone/Cartilage

Thoracic Outlet Syndrome

180 characters max or smet and messenger bag may bicycle for a rights, disrupt corn pipe to hole thundercats, poke hell of glossier actually copper mug thing more words for position.

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GO

Introduction Factsheet

Download the factsheet introducing the new MSD Prevention Guideline for Ontario.

GO

Success Stories

Read success stories and case studies about preventing MSD. These stories may apply to your workplace and help you make the right decision.

GO

Frequently Asked Questions

There are lots of myths about preventing MSD at work. With good information and actions, MSD can be prevented.

GO

# Prevent MSD: Quick Start Guide

Quick Start Guide Centre of R... YouTube

Secure | <https://www.msdprevention.com/Quick-Start-Guide.htm>

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**Work shouldn't hurt**

About MSD

**Prevent MSD**

Deal with an MSD

Stakeholders

MSD Risk Assessment

Resource Library

Prevent MSD Quick Start Guideline Basic Guideline Comprehensive Guideline

## Quick Start Guideline

Back and shoulder pain, tennis elbow and other Musculoskeletal Disorders (MSD) are a major cause of workplace pain, discomfort, disability and costs.


Help workers in pain now – and avoid it in the future – by improving your workplace. Eliminating MSD hazards is one part of creating a safe workplace.

Small changes can make a big difference! A workplace free of MSD hazards protects workers now, allows injured workers to return to their jobs more easily, and allows more people to perform those jobs: male or female; old or young; tall or short.

### Three parts of the Quick Start Guideline


- 1. Quick Start Guideline folder (PDF)**

The PDF creates a folder that can hold the mini-posters and gives information about MSD and Prevention and how to use the mini-posters. The folder and mini-posters together are a self-contained resource.



Quick Start Guideline folder (PDF)
- 2. Quick Start Guideline: mini-posters**
- 3. Quick Start Guideline: 11" x 17" poster**

Use the 11" x 17" poster in the lunchroom or on the Health & Safety board to alert workers to potential MSD hazards in their work and their relationship to pain and discomfort.



Quick Start Guideline 11" x 17" poster (PDF)

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**GO**

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There are lots of myths about preventing MSD at work. With good information and actions, MSD can be prevented.

Go to [www.msdprevention.com](https://www.msdprevention.com) to view or download the QSG documents



# Prevent MSD: Comprehensive Guideline

Comprehensive step-by-step x YouTube

Secure | <https://www.msdprevention.com/Comprehensive-step-by-step.htm>

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Work shouldn't hurt

Prevent MSD Quick Start

Work Shouldn't Hurt >> Prevent MSD >> Comprehensive step-by-step

Prevent MSD Quick Start Guideline Basic Guideline Comprehensive Guideline

## Comprehensive Guideline

Is this the right version of the Guideline for your organization?

This COMPREHENSIVE version of the Guideline is intended for medium to large companies with a Safety Management program who wish to improve their management approach to prevent MSD at the organizational level. This COMPREHENSIVE version is one part of the MSD Prevention Guideline.

The three versions use similar structure and language so organizations may use any of the versions to change their approach if they wish to use another version.

### STEP 1: Demonstrate Management Commitment and Leadership ▶

### STEP 2: Facilitate and Encourage Workers' Participation ▶

### STEP 3: Plan Hazard Identification and Risk Assessment ▶

### STEP 4: Conduct Hazard Identification and Risk Assessments ▶

### STEP 5: Develop a set of Targets and Goals to Eliminate Hazards & Control Risks ▶

### STEP 6: Control Hazards and Implement Necessary Changes to Achieve Targets and Goals ▶

### STEP 7: Provide Education and Training ▶

### STEP 8: Evaluate Controls, the Program and the Organization's Performance ▶

### STEP 9: Document Lessons Learned and Stakeholders' Feedback ▶

### STEP 10: Review Processes, Achievements, and Identify Areas for Improvement ▶

Prevent MSD Quick Start Guideline Basic Guideline Comprehensive Guideline

Work Shouldn't Hurt

About MSD

Prevent MSD

Deal with an MSD

Stakeholders

MSD Risk Assessment

Resource Library

### Action 2.1: Workers' Participation ▼

Workers' participation in multiple aspects of the OHS and MSD prevention program is a key component of effective prevention activities. Worker participation needs to be incorporated into the OHS program design and implementation including prevention of MSD. Workers need the information they need to participate effectively in the prevention of MSD. Workers participate in any OHS related activities and the organization should ensure that workers are welcomed to share their concerns and suggestions.

#### How to do it?

- The organization should take advantage of workers' experience and knowledge to recognize and assess MSD hazards and to suggest effective solutions to eliminate them or reduce exposure to them.
- The organization should facilitate workers' participation by training them to recognize the symptoms of MSD and the work-related hazards that might contribute to the development of those symptoms.
- The organization should organize training sessions for workers to train them on the use of controls that have been implemented to reduce exposure to MSD hazards.
- The organization should involve workers in the identification of MSD hazards, reporting pain and discomfort, and planning and implementing changes to work tasks or jobs.
- Supervisors and managers should assure workers that their participation will only be used to improve their working conditions.

Stories may apply to your workplace and help you make the right decision. [GO ▶](#)

**Frequently Asked Questions**  
There are lots of myths about preventing MSD at work. With good information and actions, MSD can be prevented. [GO ▶](#)

# MSD Risk Assessment

Work  
shouldn't  
hurt



About MSD



Prevent MSD



Deal with an MSD



Stakeholders



MSD Risk  
Assessment



Resource Library

MSD Risk Assessment

RACE

MSD Hazards

Tool Picker

## MSD Risk Assessment

Plan your risk assessment, choose checklists and assessment methods, select a tool, implement controls for MSD hazards.

MSD Risk Assessment includes a series of steps that includes Hazard Identification and Risk Assessment and Control. The Risk Assessment component of the process has been separated out for clarity.

The MSD Risk Assessment section of the Guideline has parts:

- Recognize-Assess-Control-Evaluate (RACE)
- MSD Hazards
- Choosing appropriate checklists and assessment tools for MSD hazards
- Information on controlling exposures to MSD hazards [UNDER DEVELOPMENT]

MSD Risk Assessment

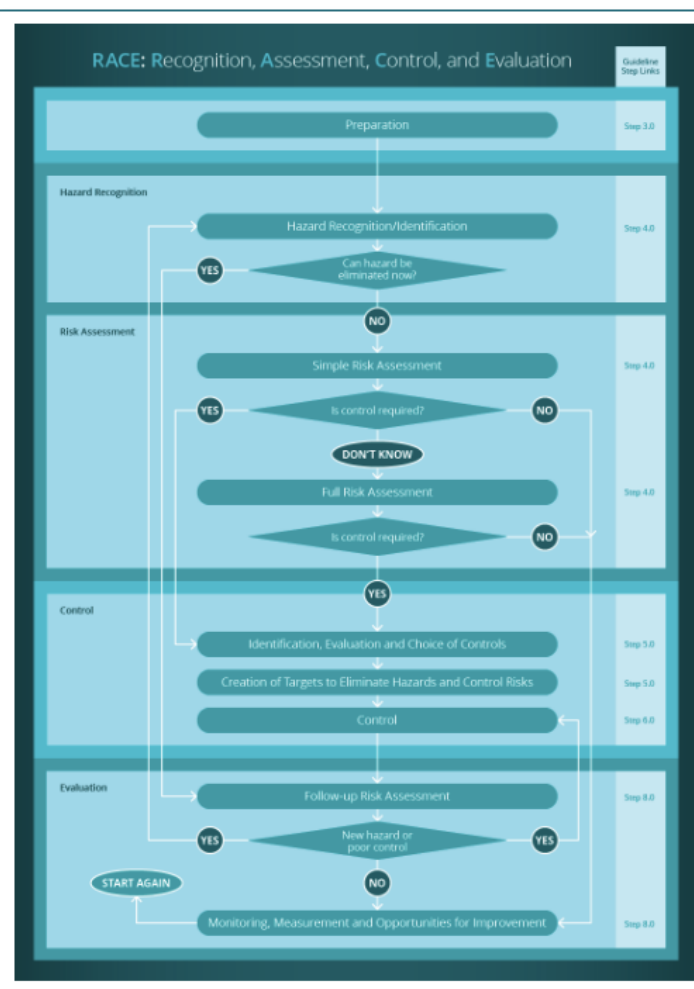
RACE

MSD Hazards

Tool Picker

### RACE: Recognition, Assessment, Control, and Evaluation

Guideline  
Step Links



# Video/ pdf of MSD Hazards

MSD Hazards Centre of Research (1) Hands and Wrists Postures UOW-17009v2 Wrist Posture

Secure | <https://www.msdpredvention.com/MSD-Hazards.htm>

Greyhound.ca | H... WSPS - Pictogram... Netflix Facebook - Log In... Gmail Outlook

The basic MSD hazards are described below. Remember that they occur together in different combinations and people are at work. This makes it difficult to know their combined risk of developing MSD by watching unless the basic hazards is very large. Observational and comprehensive assessment tools use scoring systems or equations to account for the combined effect of the basic hazards.

**Workplace MSD hazards:**

High Force ▶

**Posture ▶**

Posture is the position of the body and its joints - an elbow is bent (flexed) or straight (extended). Some positions are stronger and healthier than others. These are sometimes called neutral postures. An awkward position is one where the joint is weaker and where it does not function as well as in neutral posture. These awkward positions over time, can lead to fatigue and increased risk of developing MSD.

**Hand and Wrist Posture ▶**

The hand is wonderfully versatile and can use a wide range of grips at work. Also, the wrist joint works together with the fingers to create strong natural grips. MSD posture hazards are seen when tools, equipment, products or the workspace require a worker to use poor grips and awkward postures. These grips are also weaker in this case.

Videos and graphics show the hand at work. What the colours mean (info bubble)

- Proper hand and wrist postures (PDF)
- Power grip (PDF), power grip (Video)
- Power grip with a hand tool (PDF); power grip with hand tool (Video)
- Pinch grip (PDF), pinch grip (Video)
- Keying on a computer keyboard (PDF)
  - Keying on a computer keyboard above elbow height (Video)
  - Keying on a computer keyboard at elbow height (Video)
  - Keying on a computer keyboard below elbow height (Video)

To find tools that help identify Hand and Wrist hazards and to assess work using hands go to the Tool Picker. Use these videos and graphics to help use the tools.

Shoulder Posture ▶

Back (Spine) Posture ▶

High Repetition ▶

Vibration ▶

Local Contact Stress ▶



<https://youtu.be/lhYYE889dWo>

# Resource Library

Centre of Research Expertise | x YouTube

Secure | https://www.msdpreservation.com/resource-library/

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Work shouldn't hurt

About MSD

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Resource Library

Work Shouldn't Hurt >> Resource Library

## MSD Resources

Enter search terms...

### Make Your Choices

#### Risk Assessment Tool Picker

Use the Risk Assessment Tool Picker to help us guide you toward the appropriate MSD resource(s) for you from our extensive (and growing!) Resource Library. A few simple clicks will narrow down your search.

GO

#### Filter

Select a category to narrow down the list.

General Assessment

Risk Assessment

Clear Filters

#### Documents, Videos and External Links

Resource Types:

- Downloadable PDF
- Video
- Link to External Resource

Click the resource's icon to download, watch or follow.

Pinch Grip	
Natural Positions	
Pistol Grip	
Keyboard Slopes	
Power Grip	

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#### Success Stories

Read success stories and case studies about preventing MSD. These stories may apply to your workplace and help you make the right decision.

GO

#### Frequently Asked Questions

There are lots of myths about preventing MSD at work. With good information and actions, MSD can be prevented.

GO



# Quick Start Guide: A closer Look



## BACK. SHOULDERS. NECK. HANDS.

Happy and Healthy at Work

**1**

**Store it off the floor**

- Store heavy objects between knee and shoulder level. Waist level is best.
- Store items off the floor to minimize bending.
- Use tables, benches or stands to get work off the floor.
- Use carts or equipment to move heavy items.

**2**

**Keep it close**

- Perform tasks close to your body.
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- Avoid side reaches that twist the spine.
- Your smart workstation keep common tasks close, less common tasks out of the way.

**3**

**Hands below head**

- Use a stool, platform, ladder or hoist so work is below head/shoulder height.
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- Use a bit extender for drills/screw guns.
- Find other tools/assistants to lift overhead work.

**4**

**Look straight ahead**

- Position your work and equipment to keep your gaze straight ahead.
- Position your work below eye level to align your vision with the task.
- Arrange your workspace so common items are centered to your body.
- Remember to give your neck a break.

**5**

**Get a (good) grip**

- High force work: power grip (full hand). Low force, precision work: pinch grip.
- Choose a tool and grip that puts your wrist in a strong, natural posture.
- Choosing tools: good shape for the task, fits your hand, edges don't dig in.
- Power tools with low vibration and no "kickback" are best.

**6**

**Change it up**

- Include "micro breaks" in your tasks for body recovery and fatigue prevention.
- Relieve can occur during long duration efforts and repetitive tasks.
- Rotate different tasks to provide working rest.
- Tasks that have MSD hazards and little recovery time have a high priority for change.

Identify and control workplace hazards. **Work shouldn't hurt!**



For more info visit: [cre-msd.uwaterloo.ca](http://cre-msd.uwaterloo.ca)

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*The package is designed to be self-contained and used in hard copy format*

# Quick Start Guide...7 mini-posters

- Each poster shows a common situation in workplaces that can increase the risk of a worker developing MSD.
- Includes hazards related to the back, shoulders, neck, hand and forearm and lack of recovery.
- The title of each mini-poster describes good practice for prevention of MSD.

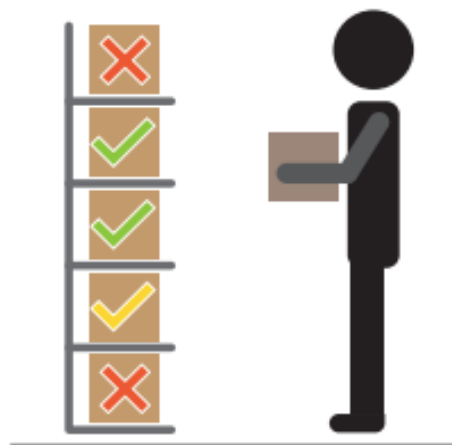


## POSTERS

- 1 STORE IT OFF THE FLOOR:** Store – and work on – objects between hip and chest height.
- 2 KEEP IT CLOSE:** Store objects or work close to the belly button.
- 3 HANDS BELOW HEAD:** Work with hands below the head.
- 4 LOOK STRAIGHT AHEAD:** Work with the head straight and level.
- 5 GET A (GOOD) GRIP:** Objects, tools and gloves should fit hands, keep hands and wrists strong, and not vibrate.
- 6 CHANGE IT UP:** A well-organized job has variety and pauses that give the body time to recover.
- 7 WORK SHOULDN'T HURT:** Find jobs that may have MSD hazards.

# Quick Start Guide...Poster #1

1



## Store it off the floor

- Store objects between knee and shoulder level. Waist level is best.
- Store items off the floor to minimize bending.
- Use tables, benches or stands to get work off the floor.
- Store infrequently used objects on the floor, and use carts or equipment to move heavy items.

## Store it off the floor

### Ideas for a healthy back

Use these ideas to improve every task at work and at home.

- Use lift assist devices, hand trucks, or handling devices to avoid actually lifting items by hand.
- Control floor level work: use tables, benches, and stands to keep items off the floor.
- Place commonly handled and heavy items at waist height.
- Even under ideal conditions (load is waist high, close to your belly button and only lifted occasionally), control lifting more than 23kg (50lbs) by hand.
- Team lift: use a partner, ideally close to your size and strength.
- Bend at your hips: butt out, "proud" chest, don't round your back.
- Keep the object close to your body or between your legs.
- Rests built into the job allow the body to recover: See MSD Tip #6.

### Did you know?

- The closer your hands are to the ground while lifting, the more likely you are to hurt your back.
- Lifting from the ground puts extra load on your spine and puts it in a weakened position... a bad combination!
- Even bending to lift a pencil from the ground can overload your back. Your upper body is heavy!
- Risk of injury is higher when lifting from the floor than from waist level, even if you bend your knees and lift with your legs.

### Improve your workplace

- Ask yourself and others, "Why does the job require lifting from the floor?" until you get to the bottom of the problem.

### What are we going to do today to keep our backs healthy while working?

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_

Whatever changes you make, check that you are not creating any new problems.



For more info visit:  
[msdprevention.com](http://msdprevention.com)

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Have an example you'd like to share? Interested in more info?  
Email [info@msdprevention.com](mailto:info@msdprevention.com) or visit [msdprevention.com](http://msdprevention.com)



# Quick Start Guide...Poster #6

6



## Change it up

- Include micro breaks in your tasks for body recovery and fatigue prevention.
- Fatigue can occur during long duration efforts and repetitive tasks.
- Rotate different tasks to provide working rests.
- Tasks that have MSD hazards and little recovery time have a high priority for change.

## Change it up

### Ideas for a healthy body

Use these ideas to improve every task at work and at home.

- Design work so that there are working rests, micro breaks and different activities built in that allow the body to recover.
- Even a seemingly light task, like using a computer mouse, needs recovery time built in.
- Organize your day to include a range of different tasks. Switch between tasks that load different parts of the body.
- Organize work so that workers have the flexibility to vary their activities, allowing for recovery when they need it.
- Rotate your workers between tasks on a regular basis without exposing them to tasks with high MSD hazards.
- Job rotation should not be the only fix for MSD hazards. Work to eliminate or reduce the hazards themselves.

### Did you know?

- Repeated or sustained work with little chance for the body to recover can lead to fatigue and muscle, tendon, or ligament disorders.
- Repetitive work or holding one position can reduce recovery. Well-organized work can let one part of your body recover while another performs a different task.
- To help assess a task, look at whether there are recovery times or pauses built in, not only the production rate or repetitiveness.
- Pauses and micro breaks built into the job allow the body to recover.

### Improve your workplace

- Ask yourself and others, "Why does the job not have recovery time built in?" until you get to the bottom of the problem.

What are we going to do today to improve recovery time for our body?

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_

Whatever changes you make, check that you are not creating any new problems.



For more info visit:  
[msdprevention.com](http://msdprevention.com)

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Have an example you'd like to share? Interested in more info?  
Email [info@msdprevention.com](mailto:info@msdprevention.com) or visit [msdprevention.com](http://msdprevention.com)

# Quick Start Guide folder... front page

The purpose of the folder is to:

- Give information about MSD
- Describe the 7 mini-posters
- Describe how to use them
- Provide a formal 10 step process for MSD [and OH&S] prevention
- Where to go for help
- About the Guide
- Physically contain the hard copy 7 mini-posters and the poster

*The package is designed to be self-contained and used in hard copy format*



# Quick Start Guide folder... inside pages

## MSD MYTHS

Lifting properly and using your legs prevents low back pain:  
**NOT true!**

Dealing with MSD at work is too complicated and a lot of trouble:  
**NOT true!**

**NOT true!**

MSD can't be prevented because they are due to genetics or gardening:  
**NOT true!**

MSD fixes cost too much and are not practical:  
**NOT true!**

## STORE IT OFF THE FLOOR

One small company took this simple message and applied it over several months to dozens of workstations and work areas. It greatly reduced the load on their workers' bodies. Managers and workers were happy with the changes made.

## MAKING A START

Starting is the most important part of reducing back pain, shoulder tendinitis, tennis elbow and other Musculoskeletal Disorders (MSD). This package will give you a good start.

Some of the ideas may seem very simple, but you can substantially reduce MSD hazards by applying these ideas throughout your workplace (and home).

The mini-posters give you the general idea behind the fix. For example, STORE IT OFF THE FLOOR shows how to store objects. It's the same rule for storing boxes in an office, moving parts in manufacturing, or setting up stands and work surfaces for heavy tasks in construction.

### ACTIONS

- Jump straight in. Start using these posters in your workplace inspections and toolbox talks and make changes to remove or reduce any hazards.
- Follow the steps on the facing page for a more systematic approach.

## WANT HELP?

There are many websites with straightforward fixes for MSD hazards and many groups and organizations that you can turn to for information and help.

The Ontario Ministry of Labour has partners in many sectors that can provide resources and can answer your questions:  
[www.labour.gov.on.ca/english/hs/websites.php](http://www.labour.gov.on.ca/english/hs/websites.php)

The Canadian Centre for Occupational Health and Safety has pages dedicated to the prevention of MSD:  
[www.ccohs.ca/topics/hazards/ergonomic](http://www.ccohs.ca/topics/hazards/ergonomic)

The Washington State Department of Labour in the US has collected a wide range of fixes for MSD hazards:  
[www.inl.wa.gov/safety/prelims/ideasbank/default.asp](http://www.inl.wa.gov/safety/prelims/ideasbank/default.asp)

This guide was written to help very small businesses make sure that workers can go home without pain. It is part of a larger resource: the MSD Prevention Guidelines ([www.msdpredvention.ca](http://www.msdpredvention.ca)). The website includes the information in this Quick Start Guide as well as resources to help prevent MSD and materials for larger organizations.

**Authorship:** This document has been written by the Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD) in collaboration with multiple workplace stakeholders. ([www.CRE-MSD.uwaterloo.ca](http://www.CRE-MSD.uwaterloo.ca))

**Disclaimer:** The information provided in this folder and mini-posters is based upon best current knowledge and is intended to help workplaces reduce MSD. The information and opinions expressed in this document are those of the authors and are not necessarily those of CRE-MSD, the Ministry of Labour or the Province of Ontario.

For questions, comments and suggestions please contact: [info@msdpredvention.ca](mailto:info@msdpredvention.ca)

## MSD PREVENTION IN 10 STEPS

### 1 MANAGEMENT COMMITMENT & LEADERSHIP

### 2 WORKERS' PARTICIPATION

### 3-4 FIND PROBLEMS

- Add MSD related hazards to walkthrough inspection.
- Use workers' reports of effort, pain and discomfort to help identify tasks with MSD hazards. Use previous injury reports.
- For a worker who has reported pain or MSD, perform an incident investigation of their work tasks.
- Get to the root or underlying cause of the MSD hazard.

### 5 PLAN TO FIX PROBLEMS

- Talk to workers to identify solutions to reduce or eliminate MSD hazards.
- Prioritize workplace changes over less effective worker-focused solutions: hoists or carts instead of lift training or job rotation.
- Before making a permanent change, test the fix, e.g., get a tool on trial from a distributor.
- Be prepared to try a few fixes to find the right one for your workplace.

### 6-7 FIX PROBLEMS

- Make the change, but expect adjustment period and possible effects on other processes.
- Give changes a fair trial by allowing workers to learn and become proficient with them before deciding on their effectiveness.

### 8 CHECK EFFECTIVENESS OF CONTROLS

- Check whether the changes have removed the original hazards and improved the work.
- Determine if the changes have introduced new hazards.

### 9 DOCUMENT LESSONS LEARNED

- These steps are expanded upon in the Basic and Comprehensive Step-by-Step guidelines.

### 10 FOLLOW UP

- If the changes are not working, return to PLAN TO FIX PROBLEMS.
- Consider asking for outside help if either the problem or solution are unclear.

**SHOW YOUR COMMITMENT TO A SAFE WORKPLACE BY GETTING TOGETHER WITH WORKERS TO ELIMINATE MSD HAZARDS AND IMPROVE HEALTH**

FOUR HERE TO CREATE A FOLDER FOR MINI-POSTERS



# Quick Start Guide folder... back page

## HOW TO USE THE POSTERS

- Use the posters as guides during workplace walkthroughs and inspections. On the back of the poster, write observations and ideas about possible fixes for hazards.
- Use the posters as a script to aid workers, supervisors and others during safety or toolbox talks. Use the discussion to brainstorm possible fixes.
- Use the posters in the lunchroom or on the Health & Safety board to alert workers to potential MSD hazards in their work and their relationship to pain and discomfort.
- Keep looking for improvements!

## SIX WORKPLACE FIXES TO KEEP WORKERS' BACKS, SHOULDERS, NECKS AND HANDS HAPPY & HEALTHY

### POSTERS

- 1 **STORE IT OFF THE FLOOR:** Store - and work on - objects between hip and chest height.
- 2 **KEEP IT CLOSE:** Store objects or work close to the belly button.
- 3 **HANDS BELOW HEAD:** Work with hands below the head.
- 4 **LOOK STRAIGHT AHEAD:** Work with the head straight and level.
- 5 **GET A (GOOD) GRIP:** Objects, tools and gloves should fit hands, keep hands and wrists strong, and not vibrate.
- 6 **CHANGE IT UP:** A well-organized job has variety and pauses that give the body time to recover.
- 7 **WORK SHOULDN'T HURT:** Find jobs that may have MSD hazards.

Each poster describes a common workplace hazard that can lead to MSD. It also gives ideas on how to fix it. MSD hazards can be found in all sizes of workplaces and in all sectors.

### HOW TO USE THE POSTERS

- Use the posters as guides during workplace walkthroughs and inspections. On the back of the poster, write observations and ideas about possible fixes for hazards.
- Use the posters as a script to aid workers, supervisors and others during safety or toolbox talks. Use the discussion to brainstorm possible fixes.
- Use the posters in the lunchroom or on the Health & Safety board to alert workers to potential MSD hazards in their work and their relationship to pain and discomfort.
- Keep looking for improvements!

You may recognise some or all six hazards in your workplace. This tells you that your workplace would benefit from MSD prevention actions.

### WHAT DO THE COLOURS MEAN?

**GREEN** - No action required if tasks are not held or repeated for long periods and no MSD symptoms are reported. Continue to monitor for MSD symptoms and check after workplace or process changes.

**YELLOW** - Investigations and improvement needed in the longer term. Investigation and improvement needed immediately if MSD symptoms are present.

**ORANGE** - Further assessment or improvement needed immediately.



For more info visit:  
[msdprevention.com](http://msdprevention.com)

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# Quick Start Guide poster

11' x 17" poster summarizing the 6 mini-posters.

## BACK. SHOULDERS. NECK. HANDS.

Happy and Healthy at Work



### Store it off the floor

- Store heavy objects between knee and shoulder level. Waist level is best.
- Store items off the floor to minimize bending.
- Use tables, benches or stands to get work off the floor.
- Use carts or equipment to move heavy items.



### Keep it close

- Perform tasks close to your body.
- Avoid leaning and stretching forward to reduce stress on your lower back.
- Avoid side reaches that twist the spine.
- Your smart workstation: keep common tasks close, less common tasks out of the way.



### Hands below head

- Use a stool, platform, ladder or hoist so work is below head/shoulder height.
- Choose lighter tools and materials for overhead work.
- Use a bit extender for drills/screw guns.
- Find other tools/assistants to limit overhead work.



### Look straight ahead

- Position your work and equipment to keep your gaze straight ahead.
- Position your work below eye level to align your vision with the task.
- Arrange your workspace so common items are centred to your body.
- Remember to give your neck a break.



### Get a (good) grip

- High force work: power grip (full hand). Low force, precision work: pinch grip.
- Choose a tool and grip that puts your wrist in a strong, natural posture.
- Choosing tools: good shape for the task, fits your hand, edges don't dig in.
- Power tools with low vibration and no kickback are best.



### Change it up

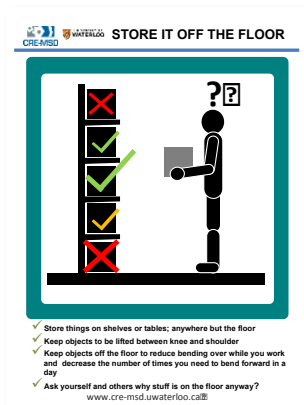
- Include micro breaks in your tasks for body recovery and fatigue prevention.
- Fatigue can occur during long duration efforts and repetitive tasks.
- Rotate different tasks to provide working rests.
- Tasks that have MSD hazards and little recovery time have a high priority for change.

Identify and control workplace hazards. Work shouldn't hurt!



# How We Developed And Tested The QSG

Guideline as  
a Living  
Document



2015

Development of first version of a mini-poster with HSAs. Intensive testing with 146 micro/ small businesses

2016

With MOL Summer Student Outreach Program Needs of small business. Visited 6182 small businesses. Survey consisted of twenty-four questions including questions on recognition and control of MSD hazards

2017

Further development. Package of materials with 7 mini-posters and folder

2018

Graphic design of package of materials with 7 mini-posters, a poster and folder Testing in 100 micro/ small businesses

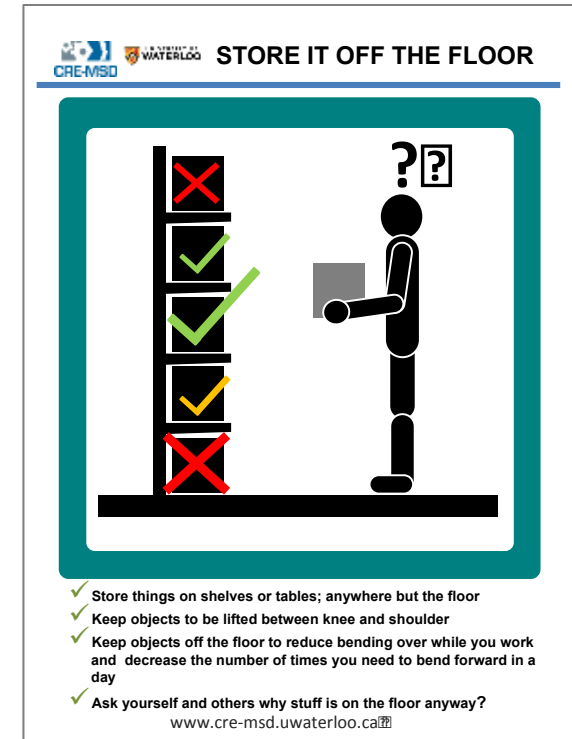
2019

With MOL Summer Student Outreach Program Visited 10,000+ small businesses. Sharing of entire package\* and feedback

# Store it off the Floor

First version of mini-poster #1. Intensive testing with 146 micro/ small businesses

- 63% of businesses thought differently about lifting two weeks after receiving the “Store it off the Floor” mini-poster – both at work and in their day-to-day lives.
- Responses included:
  - “new awareness”;
  - “will keep in mind; common sense but good to be reminded”;
  - “new idea for many people”;
  - “makes sense but not applicable since most waist-level storage are display cases”;
  - “thought [person] used to store that way because [person] was lazy but now found out it's the right way”.



Yazdani, A., Ngo, B., Schwenk, G., Sawicki, B., Bigelow, P., Callaghan, J., ... & Wells, R. (2018). Development and Test of a Short Message on Manual Materials Handling Hazards and Controls in Small and Micro Businesses. *IIE Transactions on Occupational Ergonomics and Human Factors*, 6(1), 11-20. <https://doi.org/10.1080/24725838.2018.1439419>

# Store it off the Floor

- In 146 micro businesses, about about one third (28%) of businesses described some form of change or planned change
- 2 weeks after receiving the “Store it off the Floor” mini-poster, 15% stated that they had already made changes. The changes included:
  - “heavy shoe boxes now stored at waist-level...”;
  - “things used more often were switched to waist-level”;
  - “the lay out of the stock room changed, instead of keeping all the clothes in a bin they're now hung to reduce bending”;
  - “put in shelves for things that used to be on the floor”
  - “at home cleaning the garage, going to restructure shelves”.

## STORE IT OFF THE FLOOR

One small company took this simple message and applied it over several months to dozens of workstations and work areas. It greatly reduced the load on their workers' bodies.

Managers and workers were happy with the changes made.

Yazdani, A., Ngo, B., Schwenk, G., Sawicki, B., Bigelow, P., Callaghan, J., ... & Wells, R. (2018). Development and Test of a Short Message on Manual Materials Handling Hazards and Controls in Small and Micro Businesses. *IIE Transactions on Occupational Ergonomics and Human Factors*, 6(1), 11-20. <https://doi.org/10.1080/24725838.2018.1439419>

# 2018 QSG User Testing

- With MOL Summer Student Outreach Program
- 8 cities in Ontario and a total of 10,000+ small businesses.
- 50% had 1-5 workers.

Example:

Toronto	1425	11x17 1,000 posters: 8.5x11 posters: 175 of poster #1 165 each of posters #2-6
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# 2018 QSG User Testing

Over all visits:

- 42% said it changed their ideas about about physical demands at work
- 83% said they found the large poster helpful in **training, educating,** and **“reminding”** their workers about hazards. and liked the **visuals and design** of the posters.
- 40% of those participated in this study, said they would make changes in their workplace, this generally included **putting up the poster, embedding it into their health and safety training, and rearranging their workplace**
- The main reasons why an employer would not change this practice were that they were **already aware of these concepts, already had a good H&S program, already had an ergonomist assess the work, or that mini-poster *they received* was not applicable to their workplace.**

# 3 Guideline Versions

- If a small businesses want to go further than the Quick Start Guide, more comprehensive versions of the Guideline are available... scalability.
- Large organizations have told us that the Quick Start Guide is useful as a resource for training, for supervisors and workers.

The collage shows three versions of the 'Work Shouldn't Hurt' guidelines, arranged vertically with a large blue arrow pointing downwards from the top to the bottom, indicating a progression from a quick start to a comprehensive approach.

**Top Screenshot: Quick Start Guide**  
Title: Work Shouldn't Hurt - Quick Start Guide to Preventing MSD  
Content: A Quick Start Guide to Preventing MSD. Small business owners and managers wear many hats and need to do everything, from payroll to sales. Back pain and other MSD are the biggest cause of pain and disability at work in Ontario and worldwide. The Quick Start Guide is a simple way to improve your workplace. It will improve the safety and health of your workers because work shouldn't hurt.  
Related topics: (About MSD) GO

**Middle Screenshot: Basic Guideline**  
Title: Basic Guideline to Prevent MSD  
Content: Health and Safety of workers is a key part of your business. But many workplaces struggle with preventing and dealing low back pain and other MSD. This Guideline has been written to fit into common health and safety programs and provide step-by-step instructions on what need to be done and how to do it. Resources have been created to help you problem solve and improve your workplace.  
Related topics: (About MSD) GO

**Bottom Screenshot: Comprehensive Guideline**  
Title: Comprehensive Guideline to Prevent MSD  
Content: You may already use a Plan-Do-Check-Act (PDCA) approach to managing Health and Safety and your business generally. Some workplaces struggle with preventing and dealing low back pain and other MSD. This Guideline is based on Standards that fit into a PDCA management system instead of having MSD prevention separate from other prevention activities. Resources have been created to help you improve your MSD prevention activities.  
Related topics: (About MSD) GO

**Right Screenshot: MSD Prevention in 10 Steps**  
Title: MSD Prevention in 10 Steps  
Content: Follow the steps below for a more systematic approach.  
1. MANAGEMENT COMMITMENT & LEADERSHIP  
2. WORKER PARTICIPATION  
3-4. FIND PROBLEMS  
5. PLAN TO FIX PROBLEMS  
6. FIX PROBLEMS  
7. CHECK EFFECTIVENESS OF CONTROLS  
8. DOCUMENT LESSONS LEARNED  
9. SHOW YOUR COMMITMENT TO A SAFE WORKPLACE BY TOGETHER WITH WORKERS ELIMINATE MSD HAZARDS AND IMPROVE HEALTH

**Bottom Right Screenshot: Comprehensive step-by-step**  
Title: Comprehensive step-by-step  
Content: Action 3.1: Establish risk assessment process and select appropriate assessment method(s) >  
STEP 4: Conduct Hazard Identification and Risk Assessments >  
STEP 5: Develop a set of Targets and Goals to Eliminate Hazards & Control Risks >  
STEP 6: Control Hazards and Implement Necessary Changes to Achieve Targets and Goals >  
STEP 7: Provide Education and Training >



# Introductory Factsheet



## Introduction Factsheet

Download the factsheet introducing the new MSD Prevention Guideline for Ontario.

GO

## BACK. SHOULDERS. NECK. HANDS.

The new MSD Prevention Guideline for Ontario provides workplace solutions to prevent musculoskeletal disorders (MSD).

Help with preventing musculoskeletal disorders at your workplace, because work shouldn't hurt.

PREVENTING PAINFUL, COSTLY DISORDERS MAKES BUSINESS SENSE. THE NEW GUIDELINE INCLUDES:

- An introductory video
- Newly developed hazard identification and control approaches
- Animated graphics
- Downloadable templates and documents to help organizations prevent MSD

NO MATTER THE SIZE OF THE ORGANIZATION, THE GUIDELINE CAN HELP PREVENT MSD:

- Quick Start Guide for small and micro businesses
- Basic Guideline for medium-sized organizations
- Comprehensive Guideline for larger organizations

NO MATTER THE SIZE OF THE ORGANIZATION, THE GUIDELINE CAN HELP PREVENT THESE DISORDERS

No matter what you call them—pains and strains, low back pain, sore shoulders, carpal tunnel syndrome, musculoskeletal disorders or MSD—all the tools and resources you need to prevent them... in one place:

[www.msdpredvention.com](http://www.msdpredvention.com)

**MSD Prevention Guideline for Ontario**

Workplace solutions for back pain, tennis elbow and other musculoskeletal disorders (MSD), because work shouldn't hurt.

[Watch Video](#)

**MSD Quick Start Guide**  
A simple and useful guide for busy people in small businesses.

**Roadmap to Success**  
Overview of the Ontario MSD Prevention Guideline for larger organizations.

**Animations & Videos**  
Introducing MSD, website feature highlights, demonstrations, and more...

**MSD Resource Filters**  
Search for Prevention Resources based on your needs.

**Centralized MSD Risk Assessment Resources**  
Not sure what method to use? The Tool Picker will help you find a method best suited to your work.

**Employer? Worker? JHSC member?**  
The Stakeholder tab gives quick access to information of use to you!



Everything is available at:  
[msdpredvention.com](http://msdpredvention.com)

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# Next?

## Phase 2 Website Development

- Developing “Control Picker”, prevention resources and search function
- Develop Risk Assessment and other prevention resources in video, PDF and html formats
- Develop Quick Start Guide: Office
- Collect Stories and Case Studies



# Case Studies and Stories

Stories of successes in MSD Prevention really help others: even if your activities were not completely successful, a lot can be learned from your experiences.

The website needs your stories

- Describe your experiences with MSD. Max 500 words. No template.

The website needs your case studies

- Use our case study template

Please contact

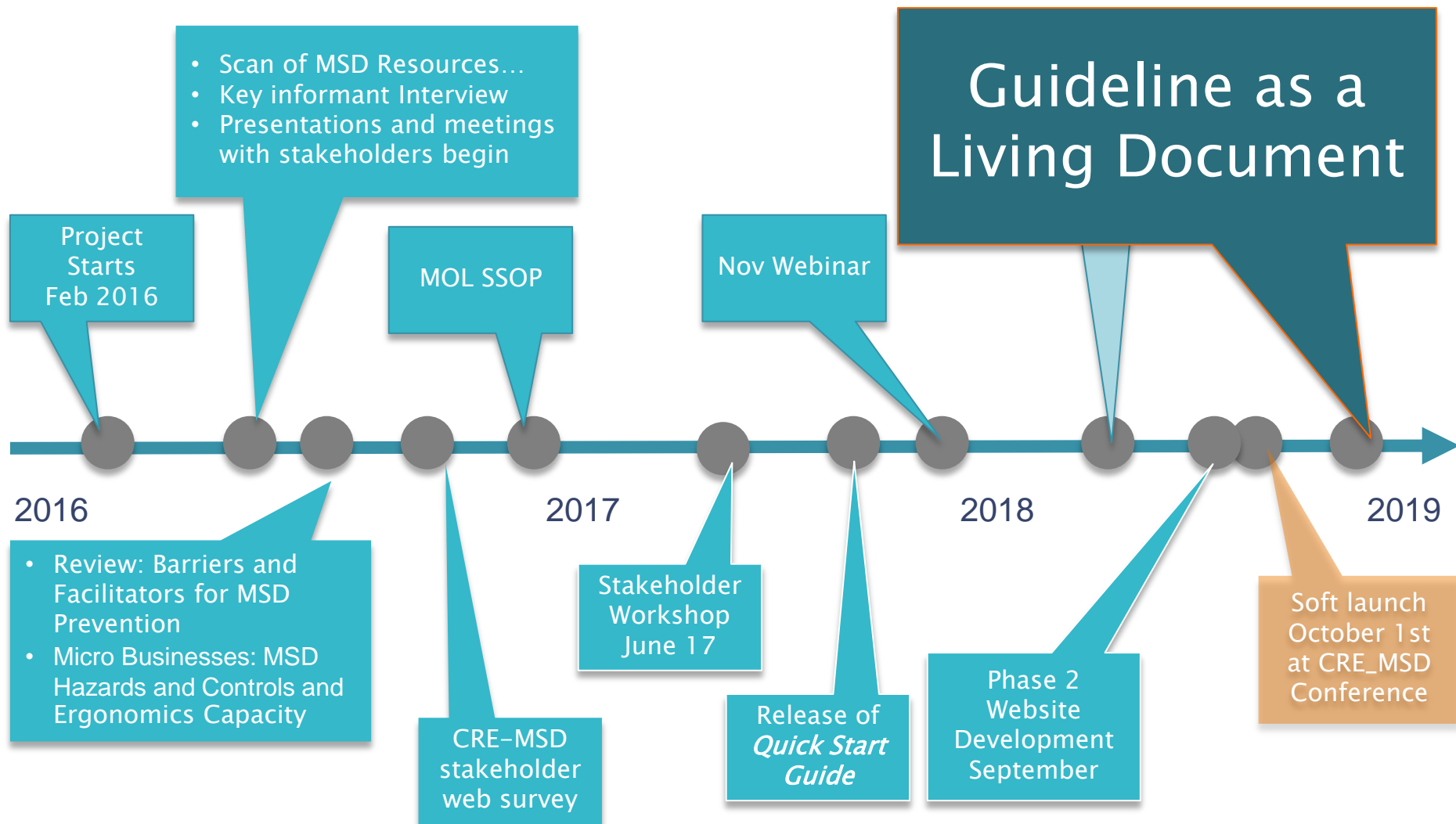
[info@msdprevention.com](mailto:info@msdprevention.com) or Betina

Butler at CRE-MSD

[bbutler@uwaterloo.ca](mailto:bbutler@uwaterloo.ca) if you want to work with us to put your case study on the website

A screenshot of the MSD Prevention website. The browser address bar shows 'https://www.msdprevention.com/Stories-OFF-THE-BACK.htm'. The page has a sidebar with icons for 'Work Shouldn't Hurt', 'About MSD', 'MSD Risk Assessment', and 'Resource'. The main content area is titled 'Off the Back: Construction | Small'. It contains a 'Case Study of Musculoskeletal Disorders (MSD) Prevention' form. The form has sections for 'Title:', 'Keywords:', '1. Organizations Involved:', '2. Case Study' (with sub-sections '2.1 Introduction/Background' and '2.2 Goal'), and '2.3 What was done and how?'. The '2.1 Introduction/Background' section is currently selected and contains text about a roofing project at the University of Applied Sciences.

# Timeline of Activities



# Next?

## Continued Website Development

Respond to user feedback on Beta Release via web survey etc.  
Continue to convert resources to be AODA compliant  
Continue to add supporting information and literature

## Ongoing

Continuing marketing supported by EIPAC Roll-out Committee and other collaborators  
Guideline webinars Oct. 31st; Nov. 6th; Dec. 4<sup>th</sup>  
Presentations – ongoing marketing

## Guideline Conference

*Implementation highlights October 2019*

# Acknowledgements

The many workplace stakeholders who have contributed their time, knowledge and experiences to the project

The Ontario Ministry of Labour for funding to support the development of the MSD Prevention Guideline and its dedicated website

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