Guidelines for Manual Material Handling

November 2011

Human Resources and Environment, Health & Safety
MANUAL MATERIAL HANDLING

Introduction

Manual material handling work contributes to a large percentage of the injury/incident reports at Brock University annually. Unsafe material handling practices can result in Musculoskeletal Disorders involving sprains and strains to the lower back, shoulders and upper limbs. They can result in protracted pain, disability, medical treatment, and financial stress for those afflicted with them.

Scientific evidence shows that effective ergonomic interventions can lower the physical demands of manual material handling work tasks, thereby lowering the incidence and severity of the injuries they cause. Employee morale also improves when supervisors and workers use a team approach to managing hazards and take a fresh look at how best to use energy, equipment, and exertion to get a job done in the most efficient, effective, and effortless way possible.

What is Manual Material Handling?

Manual Material Handling (MMH) refers to the physical moving of materials by lifting, lowering, carrying, pushing, pulling, shoveling or stacking. It may involve devices such as dollies, carts or rigs, chains or pulleys. Mechanical devices (lift trucks and power hoists) can replace manual efforts but they are not practical in all workplaces.

The materials include finished products, supplies or raw materials, which need to be moved from storage to a work station, during a work process or for other reasons.

What does the law say?

The Occupational Health and Safety Act (OHSA) specifically refer to manual material handling;

45. Material, articles or things,

(a) required to be lifted, carried or moved, shall be lifted, carried or moved in such a way and with such precautions and safeguards, including protective clothing, guards or other precautions as will ensure that the lifting, carrying or moving of the material, articles or things does not endanger the safety of any worker;

(b) Shall be transported, placed or stored so that the material, articles or things,

(i) Will not tip, collapse or fall, and

(ii) Can be removed or withdrawn without endangering the safety of any worker; and

(c) To be removed from a storage area, pile or rack, shall be removed in a manner that will not endanger the safety of any worker. R.R.O. 1990, Reg. 851, s. 45.
RISKS/HAZARDS OF MANUAL MATERIAL HANDLING

Manual Material Handling tasks may expose workers to physical risk factors. If these tasks are performed repeatedly or over long periods of time, they can lead to fatigue and injury. In addition, work may also aggravate a pre-existing problem.

Repeated or continual exposure to one or more risk factors may initially lead to fatigue and discomfort. Over time, injury to the muscles, tendons, nerves, ligaments, joints and blood vessels in parts of the body may occur. Injuries of this type are known as musculoskeletal disorders, or MSDs.

MSDs are commonly in the neck, back, shoulders, elbows, wrists or hands. The damaged tissue is commonly caused by wear and tear versus a single incident. People suffering with MSDs will gradually develop symptoms and worsen over time (weeks, months, or even years). MSDs are typically made worse with repeated exertions, awkward positions, and/or forceful movements.

There are two different types of risk factors associated with the development of injuries in material handling:

- Environmental factors
  - Temperature and relative humidity
  - Lighting
  - Noise
  - Time constraints
  - Physical conditions such as obstacles and floor surfaces

- Operator characteristics
  - General health
  - Physical factors (height, reach, flexibility, strength, weigh, aerobic capacity, etc.)
  - Pre-existing musculoskeletal problems
  - Psychological factors (motivation, stress, etc.)

There are many other types of hazards, in addition to risk factors, which could cause injury:

- Awkward postures (bending, twisting)
- Repetitive motions (frequent reaching, lifting, carrying)
- Forceful exertions (carrying or lifting heavy loads)
- Pressure points (grasping loads, leaning against parts or surfaces that are hard or have sharp edges)
- Static postures (maintaining a fixed position for a long time)
- Weight, size and shape of the load
- Coupling (type of grip on the load)
- Slippery or damaged surfaces
- Absent or inappropriate handles, and
- Imbalance (changing centre of gravity)

The task or method of handling may be hazardous when it involves:

- Lifting or lowering
  - Repetitively
  - Quickly
  - For extended periods of time
While seated or kneeling
Immediately after prolonged flexion
Shortly after a rest period
• An inability to get close to a load
• Pushing or pulling
• A poor work station design
• Carrying, pulling or moving the load over large distances
• Accuracy and precision required because of fragile loads/specific unloading locations
• Materials positioned too low or too high
• Hazardous movements or postures
• Multiple handling requirements

CONTROL MEASURES

The best control measure is to eliminate the need for workers to perform manual material handling tasks. Since this is not possible in most situations, improvements can be made to help eliminate the risks associated with manual material handling tasks. There are two types of improvements:

1. Engineering improvements
2. Administrative improvements

Engineering Improvements

These include rearranging, modifying, redesigning, providing or replacing tools, equipment, workstations, packaging, parts, processes, products or materials.

Administrative Improvements

Observe how different workers perform the same tasks to get ideas from improving work practices or organizing the work. Then consider the following improvements:

• Reduce the number of objects a worker is to handle in a day
• Alternate heavy tasks with light tasks
• Provide variety in jobs to eliminate or reduce repetition (over use of the same muscle groups)
• Adjust work schedules, work pace, or work practices.
• Provide small rest breaks
• Modify work practices so that workers can perform in their “power zone” (above knees, below shoulders, close to body)
• Rotate workers through jobs that use different muscles, body parts, or postures
• Designate heavy loads as “team lifts”

Administrative improvements, such as job rotation, can help reduce workers’ exposure to the risk factors by limiting the amount of time workers spend on problem jobs. However, these measures may still expose workers to risk factors that can lead to injuries. For these reasons, the most effective way to eliminate problem jobs is to change them. This can be done by putting into place the appropriate engineering improvements and modifying work practices accordingly.
PROACTIVE PLANNING FOR SAFETY

Manual Material Handling jobs require movement and physical activity through time and space. Improvements in the safety of manual material handling can be achieved by taking a proactive problem solving approach. Being proactive simply means finding the challenges first by looking around the workplace rather than waiting for problems to occur. Then assess and implement ways to improve the fit between the work and the worker.

The process involves workers, supervisors, and managers observing jobs, communicating the hazards, making decisions on effective options, and then taking action.

There are 4 steps to a proactive action plan:
1. Look for clues
   Conduct a physical examination of the workplace. Record all manual handling activities and collect information from workers using a questionnaire approach. Review all reports such as accident and injury reports, property damage reports, JHSC minutes, etc.). Talk to Environment, Health & Safety about general material handling hazards at Brock.

2. Assessment and prioritization
   Determine the type and severity of each potential hazard. Consider things such as size and weight of the handled load, motions used to move load, distance for reaching and bending, duration and frequency materials are handled, height which loads must be lifted, physical abilities of the worker, and education and training needs. Then consider; how can these tasks be improved? List the tasks in order of importance.

3. Make improvements
   To reduce or eliminate the risk, determine and implement the most effective and feasible controls. Brainstorming with employees can be a helpful tool during this process. When possible, control hazards at the source or along the path. Consider the following:
   • Use of mechanical devices to decrease or eliminate manual handling
   • Design or alter the workplace to ensure safe working heights
   • Design new work processes (such as team lifts for loads over 40 lbs.)
   • Repackage materials into a manageable weight, size
   • Provide adequate training and supervision

4. Follow up
   Use an assessment tool to see if new steps are being effective. This can include reviewing recent injury/incident reports, talking with employees, etc.
SUPERVISOR GUIDELINES FOR PREVENTING INJURY

• Plan the workflow to eliminate unnecessary lifts
• Organize the work so that the physical demands and work pace increase gradually
• Minimize the distances that loads are lifted and carried
• Position pallet loads of materials at a height that allows workers to lift and lower within their power zone
• Maintain equipment, which assists push, pulls, lifting, lowering, etc. in good working condition
• Avoid manually lifting or lowering loads to or from the floor
  o Store materials/products off the floor
  o Avoid designing jobs that require loads to be lifted or lowered to/from the floor
  o Arrange for material to be off-loaded immediately and onto storage shelves. Put only light-weight items on the floor.
  o Use mechanical devices or equipment (lifts, hoists) when possible
• For loads that are unstable or heavy:
  o Tag the load to alert the worker
  o Test the load for stability and weight before carrying the load
  o Use mechanical devices or equipment whenever possible
• Reduce the weight of the load by:
  o Using fewer items in the container
  o Using a smaller/lighter weight container
  o Repack containers so that contents will not shift and the weight is balanced
  o Use team lifting as a temporary measure for heavy or bulky objects
• Reduce the frequency of lifting and the amount of time employees perform lifting tasks by:
  o Rotating workers in lifting tasks with other workers in non-lifting tasks
  o Having workers alternate lifting tasks with non-lifting tasks
• Clear spaces to improve access to materials or products being handled. Easy access allows for workers to get close and reduces reaching, bending and twisting
• Provide proper storage facilities like boxes, containers, racks, or shelves
• Maintain an optimum work environment
• Ensure workers have the right equipment to handle a task and are wearing appropriate clothing and footwear
• Respond to all hazards
• Investigate injuries, accidents and “near miss” events
• Report all injuries/incidents and “near miss” events to Human Resources and Environment, Health & Safety.
• Periodically review accident data for your work area (HR/EHS can provide that information if you have been submitting reports)
WORKER GUIDELINES FOR PREVENTING INJURY

• The use of stretching is appropriate as part of a comprehensive ergonomic program. Stretching must not be used in place of engineering or administrative improvements.

• Wear appropriate clothing and footwear
  o Clothes that are comfortable around hips, knees and shoulders that do not have exposed buttons or flaps
  o Non-slip, steel toed shoes with broad based low heels.

• Check for tags on loads

• Before lifting, always test the load for stability and weight
• Follow safe lifting practices set out by your supervisor

• For loads that are unstable and/or heavy:
  o Test the load for stability and weight before carrying the load
  o Use mechanical devices or equipment whenever possible (cart, dolly, etc.)
  o Reduce the weight of the load by breaking into smaller parts
  o Repack containers to increase stability
  o Get help from a co-worker if needed

• Plan the lift:
  o Wear appropriate shoes to avoid slips, trips, and falls
  o If you wear gloves, choose the size that fits properly
  o Lift only as much as you can safely handle by yourself
  o Keep the lifts in your power zone
  o Use extra caution when lifting loads that are unstable

• When lifting:
  o Get a secure grip
  o Use both hands
  o Tighten your abdominal muscles which will activate your core muscles to help support the lift
  o Maintain the natural inward curve of your low back (look forward when lifting to ensure you are not bending down)
  o Avoid jerking by using slow, even motions
  o Keep the load as close to your body as possible
  o To the extent feasible, use your legs to push up and lift the load, not the upper body or back
  o Do not twist your body. Step to one side or the other to turn
  o Alternate heavy lifting or forceful exertion tasks with less physically demanding ones
  o Take rest breaks

• When carrying:
  o Keep loads close to your body with loads between knuckle and chest height
  o Slide, drag, push or pull loads instead of carrying whenever possible
  o Keep your upper body as close to upright as possible
  o Clear a path and make sure you have a clear path
  o Tag/label heavy/unstable loads
  o When loads are too heavy, break up the load into smaller parts
  o Minimize carrying distance by using wheeled dollies or carts
  o Use both hands when possible
  o When carrying load with one hand, alternate hands throughout the carry
• Increase size of handles when possible
• Minimize twisting
• Alternate heavy or forceful exertion tasks with less physically demanding tasks
• Use a footrest with prolonged standing
• Take rest breaks

• When pushing/pulling:
  o Stand with your back straight
  o Plan the route where the item must be pushed/pulled. Avoid inclinations or other obstacles
  o Push and pull with the strength of your legs. Avoid pushing/pulling with your back and arms
  o Change directions by moving your feet to turn your body, minimize twisting
  o Avoid pushing/pulling items which are too heavy, if needed, divide it into smaller loads or get help
  o Use equipment that will decrease the amount of weight needed to be pushed/pulled
  o Watch for sudden changes in resistance. Be prepared to stop
  o Adjust the position of your hands so that you are pushing/pulling with your hands at a height that is between the waist and lower chest
  o Push rather than pull when able, pushing puts less stress on the shoulders

• If you have a question about your ability to lift/push/pull something safely, talk to your supervisor right away
• Report all near miss events, injuries/incidents to your supervisor

SIGNS, SYMPTOMS AND STAGES OF MSDs

• **Sign** - can be physically observed, felt or heard
  o Redness, swelling, crepititus, reduced range of motion, loss of strength
• **Symptom** - cannot be seen but can be felt by the individual
  o Pain, discomfort, aching, numbness, tingling, burning, stiffness, fatigue

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
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</thead>
<tbody>
<tr>
<td>• Aching and fatigue&lt;br&gt; • Symptoms go away with rest</td>
<td>• Pain, aching and fatigue&lt;br&gt; • Symptoms present at work and home&lt;br&gt; • May interrupt sleep</td>
<td>• Pain, aching, and fatigue, even at rest&lt;br&gt; • No longer working&lt;br&gt; • Sleep disturbance is common</td>
</tr>
</tbody>
</table>

*Report Discomforts between Stage 1 & 2 -- Early Reporting Most Effective in Preventing Injuries

DEALING WITH PAIN or DISCOMFORT

Pain is an important sensation that signifies when the body is strained beyond its current physical capacity. Pain reminds one that it is time to stop or change your approach to an activity. **Do not ignore pain.** Immediately take steps to reduce the strain -- take a brief rest, adjust position, pace or the load itself, request assistance, use a tool, or find another way to do the task in a safer manner.
If pain regularly makes it difficult to perform a job, inform your supervisor, and work out ways to do the job in a different way. The severity of an injury can be minimized if proper action is taken early. Completion of a discomfort survey can help pinpoint risk factors to facilitate discussion of solutions.

Increasing fitness and physical capacity is good for both injury prevention and general health.

EHS and Employee Health Management staff are available to assist in ergonomic problem solving when solutions can’t be found locally.

### COMMON PROBLEMS & SOLUTIONS

<table>
<thead>
<tr>
<th>COMMON LIFTING PROBLEMS</th>
<th>SOLUTIONS</th>
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<tbody>
<tr>
<td>Lifting with back bent and legs straight</td>
<td>Keep back straight and bend your knees</td>
</tr>
<tr>
<td>Holding load too far from the body</td>
<td>Hold load to the body as close as possible</td>
</tr>
<tr>
<td>Twisting while lifting</td>
<td>Redesign the lift to avoid twisting. Turn your body using your feet</td>
</tr>
<tr>
<td>Losing balance during a lift because:</td>
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</tr>
<tr>
<td>• Your feet are too close together</td>
<td>• Keep a wide, balanced stance with feet generally shoulder-width apart, or wider</td>
</tr>
<tr>
<td>• The load is uneven or unstable</td>
<td>• Test the load before you lift. If it is uneven, redistribute the load, use a tripod lift (see lift types), or get help</td>
</tr>
<tr>
<td>• The load is too heavy</td>
<td>• If the load is too heavy, find another person to help or a mechanical lifting aid</td>
</tr>
<tr>
<td>Contorting the body in order to lift and carry loads in cluttered areas</td>
<td>Plan the move: inspect the pathways and destination to ensure that they are clear before you begin the lift</td>
</tr>
<tr>
<td>Poor coordination between two or more people during the lift</td>
<td>Communicate! Plan the lift together in order to coordinate your actions</td>
</tr>
<tr>
<td>Repetitive tasks</td>
<td>Make sure you alternate heavy and light tasks so that you reduce possible strain the muscles and joints</td>
</tr>
</tbody>
</table>

As you lift, always...

1. Keep the load as close to you as possible
2. Keep your back straight
3. Turn your feet outward
4. Bend your knees
5. Keep your head forward. Your lift will be more balanced with proper spine curvature
6. Breathe out as you lift
APPENDIX 1: TYPES OF LIFTS

Introduction

The following pages contain examples of different types of lifts. They may seem obvious and many know these techniques already, but fail to use them. This may be because performing a task using proper posture and body mechanics is usually slower than working in a less safe manner. Consequently we must remember that:

• Any time saved by taking a risky short cut is quickly lost if an injury results
• Back injuries can develop slowly over time
• Performing an activity incorrectly may not hurt, however this doesn’t mean that we are not damaging the body tissues

Basic Diagonal Lift

This lift is the most common method of good lifting technique. Use the basic lift for objects small enough to straddle where you have enough room to use a wise stance.

1. Get close to the object
2. Stand with a wide stance; put one foot forward and to the side of the object
3. Keep your back straight, push your buttocks out, and use your legs and hips to lower yourself down to the object
4. Move the load as close to you as possible
5. If the box has handles, grasp the handles firmly
6. Put the hand (that is on the same side of your body as the forward foot) on the side of the object furthest from you
7. Put the other hand on the side of the object closest to you. Your hands should be on opposite corners of the object
8. Grasp the object firmly with both hands
9. Prepare for the lift: look forward
10. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending your legs with you back straight, buttocks out, and breathe out as you lift
If you are doing this lift correctly, your head will lift up first, followed by your straight back. If your hips come up first and you must bend you back as you straighten up, you are doing this lift incorrectly.

**Power Lift**

*Use the power lift for objects too large for you to straddle. This lift is very similar to the basic lift. In the power lift, the object shifts your centre of gravity forward, and you must push your buttocks out to compensate. (Professional weight lifters lift using this position)*

1. Put one foot in front of the other using a wide stance
2. Keep your back straight, push your buttocks out and use your legs and hips to lower yourself down to the object
3. Move the load as close to your body as possible
4. Grasp the object firmly with both hands
5. Prepare for the lift; look forward
6. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending your legs with your back straight, your buttocks out (exaggerate this position), and breathe out as you lift

**Tripod Lift**

*Use the tripod lift for objects with uneven weight distribution (e.g. equipment or bags of material). This lift is recommended for people with decreased arm strength. It is not recommended for those with bad knees.*

1. Put one foot next to the object. Keep your back straight, push your buttocks out and slowly lower yourself down onto one knee. For support as you lower yourself down, put one hand on a stool or your thigh for support
2. Position the object close to the knee on the ground
3. Grasp the object firmly with both hands

4. Slide the object from the knee on the ground to mid-thigh. Keep your head forward, back straight, buttocks out, and lift the object onto the opposite thigh

5. Put both forearms under the object (with palms facing upward) and hug the object to your stomach and chest

6. Prepare for the lift; look forward

7. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending you legs with your back straight, buttocks out, and breathe our as you lift.

**Partial Squat Lift**

*Use the partial squat lift for small, light objects with handles close to knee height.*

1. Stand with the object close to your side

2. Place your feet at should width apart, with one foot slightly ahead of the other

3. Place one hand on a fixed surface (such as a table or stool) or on your thigh

4. Keep your back straight, push your buttocks out and slowly lower yourself down to reach the object’s handles

5. Prepare for the lift; grasp the object and look forward

6. For support as you lift, push down on the fixed surface (or on your thigh)

7. Lift upwards following your head and shoulders. Lift by extending your legs with your back straight, your buttocks out, and breathe out as you lift
Golfer’s Lift

*Use the golfer’s lift for small light objects in deep bins and to pick small objects off the floor. Recommended for people with knee problems or decreased leg strength.*

1. Place hand near the edge of a fixed surface (such as the edge of a table or bin). This hand will support your upper body during the lift.

2. Keep your back straight and raise one leg straight out behind you as you lean down to pick up the object. The weight of your leg will counterbalance the weight of your upper body.

3. Grasp the object firmly.

4. Prepare for the lift; look forward. Keep your leg raised as you initiate the lift.

5. To lift, push down on the fixed surface as you lower your leg. Keep your back straight and breathe out as you lift.

Overhead Lift

*Use the overhead lift to place objects on an overhead shelf. This lift begins with an object in your hands. Be careful! Overhead lifts put you at an increased risk of muscle strain. It can be difficult to maintain balance during the lift. If possible, overhead lifts should be avoided unless necessary. Remember to take proper precautions when lifting overhead.*
1. Hold the object close to your body
2. Keep feet shoulder width apart, one foot slightly ahead of the other
3. Prepare for the lift; look forward
4. Raise the object to shelf height using the arm and shoulder muscles. Keep the object close to your body and breathe out as you lift
5. As you reach the shelf, slowly shift your weight from you back foot to your forward foot. Keep your back straight
6. When the load reaches the edge of the shelf, push the object onto the shelf

**Pivot Technique**

*When you must lift an object and then turn to carry it away, it is common to twist the body. Twisting while lifting can cause serious damage to the tissues of the back. Use the pivot technique to avoid twisting while lifting.*

1. Lift the load using any of the previous techniques
2. Hold the load very close to your body at waist level
3. Turn the leading foot 90 degrees toward the direction you want to turn
4. Bring the lagging foot next to the leading foot. Do not twist your body!
Appendix 2: MSD HAZARD IDENTIFICATION TOOL

This tool is for use by a work supervisor to help identify problem areas and assist with brainstorming possible solutions. See “Control Measures” and “Proactive Planning for Safety” (pages 4-5) to create solutions for recognized hazards.

<table>
<thead>
<tr>
<th>Job Screened:</th>
<th>Job Description</th>
<th>If done in this job place a check mark the box</th>
<th>Number of workers performing this job?</th>
</tr>
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<tbody>
<tr>
<td>Movements or postures that are a regular and foreseeable part of the job, occurring more than one day per week, and more frequently than one week per year.</td>
<td>If done in this job place a check mark the box</td>
<td>Number of workers performing this job?</td>
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<thead>
<tr>
<th>Awkward Posture</th>
<th>Comments/Observations</th>
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<tbody>
<tr>
<td>1. Working with the hand(s) above the head, or the elbow(s) above the shoulders more than 2 hours total per day</td>
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<tr>
<td>2. Working with the neck rotated more than 45 degrees in either direction for more than 2 hours total per day</td>
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<tr>
<td>3. Working with forward head/neck bent back more than 20 degrees for more than 2 hours total per day</td>
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<tr>
<td>4. Squatting more than 2 hours total per day</td>
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<tr>
<td>5. Working while sitting or standing with the back bent forward, sideways, or twisted more than 30 degrees for more than 2 hours total per day</td>
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<tr>
<td>6. Working while sitting or standing with the back bent back more than 20 degrees, and with no support for the back, for more than 2 hours total per day</td>
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<tr>
<td>7. Kneeling more than 2 hours total per day</td>
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### Guidelines for Manual Material Handling

**High Hand Force Comments/Observations**

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<td>8.</td>
<td>Pinching an unsupported object(s) weighing 2 or more pounds per hand, or pinching with a force of 4 or more pounds per hand, more than 2 hours total per day (comparable to pinching half a ream of paper)</td>
</tr>
<tr>
<td>9.</td>
<td>Gripping an unsupported object(s) weighing 10 or more pounds per hand, or gripping with a force of 10 or more pounds per hand, more than 2 hours total per day (comparable to clamping light duty automotive jumper cables onto a battery)</td>
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**Highly Repetitive Motion Comments/Observations**

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<tr>
<td>10.</td>
<td>Repeating the same motion with the neck, shoulders, elbows, wrists, or hands (excluding keying activities) with little to no variation every few seconds, more than 2 hours per day</td>
</tr>
<tr>
<td>11.</td>
<td>Performing intensive keying more than 4 hours total per day</td>
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**Repeated Impact Comments/Observations**

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<tbody>
<tr>
<td>12.</td>
<td>Using the hand (heel/base of palm) or knee as a hammer more than 10 times per hour, more than 2 hours total per day</td>
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**Heavy, Frequent or Awkward Lifting (A simple scale can be used to determine the weight of materials) Comments/Observations**

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<tbody>
<tr>
<td>13.</td>
<td>Lifting object weighing more than 75 pounds once per day or more than 55 pounds more than 10 times per day</td>
</tr>
<tr>
<td>14.</td>
<td>Lifting objects weighing more than 10 pounds if done more than twice per minute, more than 2 hours total per day</td>
</tr>
<tr>
<td>15.</td>
<td>Lifting objects weighing more than 25 pounds above the shoulders, below the knees or at arms length more than 25 times per day</td>
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</tbody>
</table>
### Moderate to high Hand-Arm Vibration (Closely estimate or obtain the vibration value of the tool in use)

<table>
<thead>
<tr>
<th>Comments/Observations</th>
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<tbody>
<tr>
<td>16. Using impact wrenches, carpet strippers, chain saws, percussive tools (jack hammers, scalers, riveting or chipping hammers) or other tools that typically have high vibration levels, more than 30 minutes total per day □</td>
</tr>
<tr>
<td>17. Using grinders, sanders, jigsaws or other hand tools that typically have moderate vibration levels more than 2 hours total per day □</td>
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Appendix 3: WORKER DISCOMFORT SURVEY

This tool is for use by the worker to assist with facilitating an evaluation of work tasks/practices/procedures with the supervisor.

Date: __________ Job: ______________________________ Area: __________________

Hours worked/week: ______________ Time on this job: _____ (Years) _____ (Months)

1. Have you had pain or discomfort during the last year?
   - Yes
   - No (if no, stop here)

2. If yes, please rate the level of discomfort over the last month by completing the “how much” box using a scale of 0 to 10. (0 is no discomfort, 10 being the worst discomfort)

   - Neck
   - Right Shoulder
   - Left Shoulder
   - Upper Back
   - Right Elbow/Forearm
   - Left Elbow/Forearm
   - Lower Back
   - Right Hand/Wrist
   - Left Wrist/Hand
   - Right Hip/Thigh/Buttock
   - Left Hip/Thigh/Buttock
   - Right Knee
   - Left Knee
   - Right Ankle/Foot
   - Left Ankle/Foot

If you are a recent hire, please list other jobs you have done in the last year (more than 2 weeks). **Note:** If more than 2 jobs, include only those you worked on most.

Job: _______________________ Time on this job: ______________ (Months) ____________ (Weeks)

Job: _______________________ Time on this job: ______________ (Months) ____________ (Weeks)

3. When did you first notice your discomfort? __________ (Month) __________ (Year)
4. What do you think caused the discomfort? Is it a specific task?

5. Please comment on what you think would help to reduce your level of discomfort. Any changes or recommendations you would make to the work environment to reduce injury?

6. Do you consider your discomfort to be a problem?
   Yes ☐ No ☐

7. Have you missed time from work (vacation, sick days) or attended medical review as a result of your work related discomfort?
   Yes ☐ No ☐

If yes, and you have not already completed an Accident/Injury Report, you are required to notify your supervisor to follow the reporting process. Report all pain and injury to your supervisor when it is noticed.

Your health care provider may suggest some tissue-strengthening exercises; these are intended to get your back healthy as quickly as possible. HR/EHS staff can also review your workplace design and recommend workplace adjustments that should be made to stop the aches and pains.
RESOURCES and LINKS

Canadian Centre for Occupational Health & Safety (CCOHS): Pushing and Pulling
http://www.ccohs.ca/oshanswers/ergonomics/push1.html

CDC Workplace Safety and Health Ergonomic Guidelines for Manual Material Handling

IAPA Manual Material Handling Health and Safety Guideline

Lifting Techniques (U.S. Army Centre for Health Promotion and Preventive Medicine)
http://www.bcn-nshe.org/downloads/workerscomp/ProperLifting1-28-03_000.pdf

WorksafeBC - MSI Prevention Process
http://www2.worksafebc.com/Topics/Ergonomics/MSIPreventionProcess.asp

WorksafeBC - Ergonomics Assessment Tools
http://www2.worksafebc.com/topics/ergonomics/AssessmentTools.asp

WSIB Fact Sheet - Manual Materials Handling

University of Western Ontario: MSI Prevention Program
http://www.uwo.ca/humanresources/facultystaff/h_and_s/rehab/ergonomics/msd/index.htm