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| **ABC COMPANY – Occupational Health and Safety Program** | | |
| **Musculoskeletal Injury (MSI) Prevention** | | Issue date: DD/MM/YYYY  Review date: DD/MM/YYYY |
| Approved by: | Reviewed by: | |

Please note the following document is a sample. Review carefully and modify this document to meet the needs and requirements of your organization.

# 1.0 PURPOSE

To establish procedures and responsibilities for identifying, reporting, investigating, and preventing musculoskeletal injuries (MSIs) and MSI hazards in the workplace.

**ABC Company** is committed to providing a safe and healthy working environment for all staff. Our organization will demonstrate its commitment by providing financial, physical and human resources to ensure that all staff understand and are aware of the risk factors associated with MSI, and will provide appropriate ergonomic equipment where possible, for MSI prevention.

# 2.0 DEFINITIONS

**Awkward posture**: Posture that requires a body part to move away from its neutral position.

**Body mechanics**: The way in which your muscles and joints interact to help you move in your daily activities.

**Contact stress**: Occurs when a body part presses against a hard surface damaging nerves, tendons, blood vessels, and other tissues due to pressure and decreased blood flow.

**Hazard Assessments**: A thorough assessment of the workplace or a specific task. The purpose is to identify actual and potential hazards in the workplace, with the intent to first eliminate or minimize the hazard.

**MSI hazards**: Physical factors in the environment that have the potential to cause harm in the form of an MSI. The terms hazards and risk factors are often used interchangeably. In this way, MSI hazards can have the same meaning as MSI risk factors.

**MSI risk factors**: Factors of a job that, when present, increase the chance an MSI will occur. Examples are forceful exertions, repetitive motions and awkward and sustained postures. The terms risk factors and hazards are often used interchangeably. In this way, MSI risk factors can have the same meaning as MSI hazards.

**Ergonomics**: The science of matching job demands to workers and products to end users. It is about finding the right fit: the fit between people, the things they do, the objects (e.g. tools, equipment, and machinery) they use, and the environments in which they work (e.g. noise, lighting, temperature and vibration). Ergonomics seeks to fit the job to the worker rather than the person to the job.

**Ergonomic assessment:** A quantitative process that evaluates a workstation or job for ergonomic risks. Ergonomic assessments analyze risk factors found in the work and measure their effect on the user(s). Specific recommendations are made to improve workstation set up and job design and obtain the appropriate tools and equipment for the user(s) to reduce the risk of MSIs. Ergonomic assessments are performed by a competent individual with training in ergonomics and various ergonomic risk assessment methods.

**Forceful exertions**: The effort that a muscle or group of muscles uses to complete a job.

**Manual handling (manual materials handling):** Includes any way in which workers physically move or handle an object (e.g. lifting, lowering, pushing, pulling, carrying, and holding).

**Musculoskeletal injury (MSI):** An injury or disorder of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue, including a sprain, strain or inflammation that may be caused or aggregated by work.

The term MSI is used in Newfoundland and Labrador. Other terms with similar meanings include:

* soft-tissue injury
* musculoskeletal disorder
* work-related musculoskeletal disorder
* repetitive strain injury
* repetitive motion injury
* occupational overuse syndrome
* cumulative trauma disorder

Common MSIs include but are not limited to:

* Muscle or tendon strain
* Ligament sprain
* Tendonitis
* Tennis Elbow or Golfer’s Elbow
* Bursitis
* Carpal Tunnel Syndrome
* Herniated disc
* Trigger Finger

**Neutral posture**: Joints are in their natural rested position and stress on the musculoskeletal system is reduced. The back is in neutral posture when the natural curves of the spine are maintained.

**Overexertion**: Putting more force on the body tissues than they can handle.

**Physical demands descriptions (PDD):** A document used by employers to objectively capture and describe the physical demands that are required to perform a particular job or role. These are commonly used in jobs with high risk for MSI and the information is incorporated into job descriptions. PDDs are also useful in the return-to-work process to determine if the physical demands of a job match the employee’s current abilities following an injury.

**Repetitive motions**: Refer to using the same muscles repeatedly and usually occur when the same task is performed over and over, or when different tasks are performed using the same muscles.

**Sustained posture**: Holding the body, or a part of the body, in one position for an extended period.

**Workplace design**: Using ergonomics principles to design a place for workers to work in a safe, healthy and efficient manner considering the individual capabilities and limitations of the workers.

# 3.0 MSI RISK FACTORS

Primary risk factors for MSI:

1. Force (overexertion)
2. Awkward postures
3. Sustained postures
4. Repetitive motion

Other risk factors that may cause or increase the risk of MSI:

1. Contact stress
2. Whole-body vibration
3. Body-segmental vibration
4. Adverse temperatures
5. Improper lighting

Examples of work conditions that may lead to MSI include routine bending, reaching, twisting, overhead work, lifting, pushing, and pulling as well as infrequent lifting of heavy objects.

**ABC Company** will incorporate MSI risk factors in the regular workplace inspections and hazard assessments.

*(Note: For information on MSI risk factors and potential control measures, see WorkplaceNL’s online information sheets* [*MSI Risk Factors*](https://workplacenl.ca/faq/msi-risk-factors/)*. WorkplaceNL’s* [*Musculoskeletal Injuries webpage*](https://workplacenl.ca/employers/health-and-safety/musculoskeletal-injuries/) *contains an extensive library of MSI resources (e.g. posters, safety shares, videos) to support educating and communicating on MSI risk factors and prevention.)*

# 4.0 SIGNS AND SYMPTOMS

An MSI can occur suddenly or develop gradually over time. For example, a muscle or tendon strain can occur suddenly from overexerting the back or shoulder to lift a heavy box, whereas carpal tunnel syndrome develops gradually from performing routine repetitive motions of the hand and wrist without sufficient rest over a prolonged period of time.

With some MSIs, signs and symptoms develop gradually, and they may seem insignificant at first but should never be ignored. By identifying the warning signs, action can be taken before injury occurs.

Some MSI warning signs and symptoms include:

* Aches and pain
* Tenderness
* Heaviness
* Stiffness or loss of joint movement
* Tightness
* Numbness
* Tingling
* Burning
* Swelling
* Weakness or tired feeling in affected area

# 5.0 RESPONSIBILITIES

**Employer:**

* Ensure a written MSI prevention policy and procedure is implemented and maintained.
* Identify, assess, and control MSI hazards in consultation with the OHS Committee (or WHS Representative) and workers.
* Provide training to workers and supervisors on MSI prevention.
* Communicate MSI risks and solutions.
* Ensure ergonomically appropriate tools, equipment, and workstations are available.
* Facilitate reporting and investigation of MSI-related concerns, signs, symptoms, and incidents.

**Safety Officer**

* Identify, assess, and control MSI hazards in consultation with the OHS Committee (or WHS Representative) and workers.
* Promote OHS awareness.
* Participate in workplace inspections and investigating MSI signs and symptoms and MSI hazard concerns.
* Ensure compliance with OHS legislation.

**Supervisor:**

* Participate in the identification, assessment, and control of MSI hazards.
* Provide workers with appropriate training and coaching for MSI prevention.
* Monitor work practices for MSI risks and ensure safe work procedures are followed.
* Encourage early reporting of MSI signs and symptoms.
* Promptly respond to reported MSI signs, symptoms and concerns.
* Participate in investigations of reported MSI signs, symptoms and hazard concerns.

**OHS Committee (or WHS Representative):**

* Participate in the identification, assessment, and control of MSI hazards.
* Review MSI-related reports and recommend corrective actions.
* Conduct regular ergonomic inspections and consult with workers on MSI issues.
* Ensure MSI prevention is on the agenda during regular safety meetings.

**Worker:**

* Follow ergonomic work practices and report any signs, symptoms, or concerns related to MSI.
* Participate in training sessions and use the ergonomic equipment provided.
* Cooperate with investigations and hazards assessments related to MSI prevention.
* Take part in early reporting of MSI signs, symptoms and hazard concerns to support early intervention.

**Contractors and Visitors:**

* Adhere to **ABC Company’s** MSI prevention procedure while on-site.
* Ensure their workers receive proper training in MSI prevention.
* Report any MSI incidents or hazards to **ABC Company** personnel immediately.
* Cooperate with investigations and implement corrective measures as directed.

# 6.0 PROCEDURES

## **6.1 MSI Reporting**

1. Employees must report early signs or symptoms of an MSI or concerns about MSI hazards to their supervisor or safety representative as soon as possible.
   1. MSI hazards must be reported through the **ABC Company** hazard reporting system.
   2. MSI signs and symptoms must be reported through the **ABC Company** Incident Report and Investigation Form.
2. Supervisors submit reports of MSI signs or symptoms and MSI hazards to the Safety Officer.
3. The Safety Officer reviews the report and determines whether further assessment or intervention is needed.

## **6.2 MSI Investigation**

1. A preliminary investigation is conducted within 48 hours of a reported MSI sign, symptom or hazard.
2. The investigation team includes: the supervisor, a member of the OHS Committee (or WHS Representative), and the Safety Officer.
3. The investigation includes:
   1. Interviews with the affected employee(s)
   2. Observation and MSI hazard assessment of the task or workstation
   3. Review of past reports or trends
4. Corrective actions are identified and documented, with a timeline for implementation *(Note: timeline(s) should be consistent with company’s incident investigation and hazard assessment systems).*
5. The affected employee(s) is informed of the outcome and corrective actions taken.
6. Follow-up assessments are completed to verify effectiveness and ensure resolution.

***6.3 MSI Hazard Assessment and Referral for Ergonomic Assessment***

MSI hazard assessments are to be conducted in accordance with **ABC Company’s procedure: Hazard Recognition, Evaluation and Control.** The procedures below apply specifically to MSI hazard assessments.

An MSI hazard assessment of work processes and tasks should be completed for every job. All jobs and worksites have MSI risk factors.

**Conducting MSI Hazard Assessments**

Documentation: **ABC Company (name of form)** must be used to record MSI hazard assessments. Completed assessments must include the following: MSI risk factor(s) identified, risk rating(s), control measure(s) to be implemented, person responsible for implementing control(s), timeline(s) for implementation of control(s), and date of completion of control(s).

Step 1: Identify present and potential MSI risk factors:

It is not practical to identify MSI risk factors associated with all jobs at one time. A reasonable approach is to determine which jobs are higher risk for MSI and establish a plan for conducting assessments in order of priority. Jobs where an MSI has occurred or a worker(s) is experiencing early signs or symptoms are likely to be higher risk and are priority for assessment. Where a potential MSI hazard has been reported or observed, that job should be prioritized next. To set further priority for preventive risk identification, workers may be interviewed or asked to take a survey and work observations will be conducted on an ongoing basis.

Risk identification will also take place before a new job or work process is introduced. This affords the opportunity to prevent foreseeable hazards entering the workplace or minimize the risk to workers.

**ABC Company** will identify MSI hazards through the following methods: Hazard assessments, workplace inspections, employee hazard reporting, incident investigations, work observations, employee feedback, OHS legislation, physical demands descriptions (PDD). Where required, the expertise of an external OHS professional will be sought.

Step 2: Assess MSI risk:

**ABC Company** will evaluate the level of risk to employees presented by the risk factors identified using a risk matrix that rates the likelihood (probability) of MSI occurrence and severity of the potential consequences. Factors considered in rating the likelihood and severity include frequency and duration of worker exposure to the risk factor(s), magnitude of the risk factor(s), and the potential for multiple risk factors to interact and intensify the overall risk. Additionally, past experiences with MSIs related to similar hazards will be considered.

Step 3: Implement control measures:

**ABC Company** will implement the most effective controls to either remove MSI hazards entirely or, when elimination isn't feasible, reduce the risk to employees. This approach aligns with the hierarchy of controls, prioritizing higher-level controls like elimination and engineering controls. Where necessary, administrative controls (e.g. safe work procedures, training, job rotation, schedules) and PPE (e.g. knee pads) will be used to minimize exposure, with PPE being our last line of defense.

Ergonomics principles will be used in the prevention and control of MSI hazards:

* Work in neutral postures
* Keep everything within easy reach
* Reduce excessive motions
* Reduce excessive forces
* Work at proper heights
* Minimize fatigue and static loading
* Move, exercise, stretch
* Maintain a comfortable environment

In the event of a disagreement between workplace parties on the identified controls to be implemented, the supervisor must send a request to the Safety Officer for assistance from occupational health and safety professionals or other internal or external experts with knowledge of the hazard.

Step 4: Monitor and review:

The supervisor will monitor and evaluate controls for effectiveness. Evaluation may involve interviewing employees, looking for decreases in the number and severity of signs and symptoms of MSI, and observing a reduction in the number or severity of risk factors.

Assessments must be reviewed annually and updated as required.

**Referral for ergonomic assessment**

If MSI hazards are complex and a solution cannot be identified, or an employee brings a medical note forward, a more in-depth risk assessment may be required. Such assessments will be conducted by a trained internal or external individual with ergonomics expertise.

Supervisors and managers must send a request for an ergonomic assessment to the Safety Officer, in writing.

The supervisor will notify the OHS Committee worker member of the assessment date and communicate any action plans to employees.

Copies of the ergonomic assessment report will be shared with the supervisor, affected employee(s) and OHS Committee.

The supervisor will determine the feasibility of the controls and corrective actions in consultation with the workplace parties and OHS Committee. Controls will be implemented by the supervisor considering employee input. The supervisor will ensure the controls are evaluated for effectiveness; this will include feedback from employees.

# 6.4 Training and Communication

New employees receive MSI prevention training as part of orientation. This will include MSI awareness, definition of MSI, signs and symptoms and potential health effects, **ABC Company’s** procedures for reporting early signs and symptoms and concerns of potential MSI hazards, MSI risk factors and ergonomic practices for prevention of MSIs.

Job-specific training will include specific and potential MSI hazards and control measures to be used to prevent MSIs, such as:

* Proper use of equipment,
* How to modify the work or tasks to reduce the risk of MSIs, including when and how to use rest breaks and task variation,
* Healthy working postures, and
* Proper body mechanics during manual material handling, if applicable.
* Safe patient handling and mobility training, if applicable.

Annual refresher training is required for all workers to refresh knowledge and skills related to MSI prevention. It will cover topics such as risk factors, early signs and symptoms, prevention techniques relevant to the tasks performed, and procedures for reporting signs and symptoms and hazard concerns.

Existing and potential MSI risk factors will be communicated to workers before work or tasks begin. Orientation, training, emails, toolbox talks, memos, and posters are examples of methods that will be used. All communication activities must be documented.

Completed hazard assessment outcomes, including implemented or pending corrective actions, will be reviewed with workers. If corrective actions are delayed, workers will be informed of the anticipated timeline for completion and receive periodic status updates. New work procedures will be accompanied by worker training.

# 6.5 Continuous Improvement

**ABC Company’s** MSI statistics and trends will be reviewed quarterly by the OHS Committee.

This procedure will be reviewed at least every three years and updated as required.