City of Bath, Maine

ERGONOMICS POLICY

CITY OF BATH, MAINE
ERGONOMICS POLICY

Who Needs to Know This Policy
Full-time & part-time employees of the City of Bath.

Review Process: The City shall review this Program/Policy on an annual basis

Purpose
The purpose of this Policy is to establish the minimum requirements for an ergonomic program that provides a work environment where operations are designed to fit the total employee involvement and recognizes that reducing ergonomics risk is a key factor in maintaining an environment of personal; safety and well being.

Policy

It is the policy of the City of Bath to comply with the State of Maine governed by the Federal OSHA health and safety standards found in the 29 Code of Federal Regulations (CFR). These include, but are not limited to, the OSHA workplace poster requirements in Part 1903, OSHA injury and illness recordkeeping requirements in Part 1904, general industry standards in Part 1910, maritime standards in Parts 1915, 1917 and 1918, construction standards in Part 1926, and agricultural standards in Part 1928.

Maine State law also mandates training to employees who operate video display terminals (Title 26, section 251).

Definitions of Terms

"Cumulative Trauma Disorders (CTD) – The wear and tear on tendons, muscles and sensitive nerve tissue caused by continuous us over an extended period.

"Carpal Tunnel Syndrome" - swelling and entrapment of median nerve in the wrist.

"Ergonomics" the science relating to people and their work, and concerned with optimally and safely fitting the human to the work by using anatomic, physiological, and mechanical principles.

"Hand-Arm Vibration Syndrome" – damage to blood vessels and nerves in the hands and arms caused by vibration of tools and machinery.

"Musculoskeletal disorders (MSD's) - are injuries and disorders that affect the human body's movement or musculoskeletal system (i.e. muscles, tendons, ligaments, nerves, discs, blood vessels, etc.).

"Repetitive Motion Injury (RMI) – a condition caused by a repeated motion, pressure, or vibration when the same task is performed over and over each day. "Tendinitis" – inflammation of tendons or tendon-muscle attachments causing swelling and pain

"VDT" – visual or video display terminal

Responsibilities

A. Department Director will:

1. Ensure that this Ergonomics Program/Policy is implemented within their department. The department director has the authority to delegate any or all portions of the Ergonomics Program/Policy to subordinates, but the department director will be held responsible for compliance.
2. Annually budget for ergonomic expenses (e.g. glare guards, keyboard trays, anti vibration gloves, adjustable workstations, lighting etc.)
3. Inform supervisors to: Receive and respond promptly to reports and signs and symptoms of MSD's, MSD hazards and recommendations and take action where required, to correct identified problems.
4. Communicate regularly with employees about the program and their concerns about MSDs. This can be accomplished through the safety committee, postings on employee bulletin boards, weekly staff meetings, and routine safety training meetings.

B. Supervisors will:

1. Communicate the Ergonomics Program/Policy to all employees and ensure the proper design and use of tools and equipment.

2. Request worksite evaluations for problematic jobs and tasks. Encourage employees to report signs and symptoms of work-related musculoskeletal disorders.
3. Respond to employees' reports of ergonomic-related concerns/injuries in a timely manner.
4. Encourage injured employees to complete an Employee Incident Report and visit Employee Occupational Health Service for medical evaluation and care.
5. Encourage employees to participate in identifying jobs and tasks with ergonomic risk factors and assist in implementing corrective actions.
6. Identify ergonomic risk factors in the workplace and ensure implementation of corrective actions to reduce these risks.
7. Determine root causes of incidents, conduct worksite assessments, suggest potential control solutions in cooperation with Occupational Safety/Ergonomics professionals and provide sufficient resources to implement ergonomic recommendations in a timely manner.
8. Ensure employees receive ergonomic education and training.
9. Encourage and support a safe environment, including the use of proper equipment and work practices.

C. Employees will:
1. Report ergonomic problems to their supervisor or the Safety Committee as soon as possible to facilitate proactive interventions and/or prompt medical treatment
2. Use appropriate tools, equipment, parts, and materials and procedures in the manner established by directors and supervisors and report when they are not in good condition.
3. Attend ergonomics training as required and apply the knowledge and skills acquired to actual jobs, tasks, processes and work activities.
4. Take responsibility for his/her personal health and safety

D. Safety Committee will:
1. Update and maintain the Ergonomics Program/Policy.
2. Provide assistance in training employees on ergonomics
3. Provide guidance, advice, and assistance to management to achieve compliance with this Program/Policy.
4. Review and analyze trends in frequency and severity of ergonomics-related injuries

Procedure

A. Goals

The goals of the ergonomics program contained in the Policy are to:
1. Prevent injuries and illnesses by eliminating or reducing worker exposure to repetitive motion risk factors;
2. Reduce the potential for fatigue, error, and unsafe acts by adapting the job and workplace to the worker's capabilities and limitations;

3. Increase the overall productivity of the work force; and 4. Reduce Worker's compensation claims and associated costs.

B. Hazard Prevention and Control

Ergonomic engineering controls can be implemented to redesign the equipment or worksite to fit the limitations and capabilities of workers. Effective schedules for maintenance, adjustments, and modifications of facilities, equipment, and tools will reduce repetitive motions hazards. This includes ensuring proper working conditions, having sufficient replacement tools to facilitate maintenance, and ensuring effective housekeeping programs. Tools and equipment maintenance may also include vibration monitoring.

Administrative controls should be used to limit duration, frequency, and the severity of exposure to repetitive motions hazards. Examples of administrative controls include, but are not limited to:

1. Decreasing production rate requirements and limiting overtime work to reduce the number of repetitions;
2. Providing rest breaks to relieve fatigued muscle-tendon groups;
3. Increasing the number of employees assigned to the task (lifting in teams rather than individually);and
4. Instituting job rotation as a preventive measure, with the goal of alleviating physical fatigued and stress to particular set of muscles and tendons.

C. Training

Employees shall be provided training that includes the following:

1. An explanation of the City's program;
2. The exposures which have been associated with Repetitive Motion Injury (RMI)s;
3. The systems and consequences of injuries caused by repetitive motion and vibration; 4. The importance of reporting symptoms and injuries to the employer
5. Methods used by the employer to minimize RMIs.
6. Employees who are at a Video Display Terminal for more than 4 hours a day are required to read and understand the Office Ergonomics Written Program and annually complete the online VDT presentation recommended by the safety committee.
7. Training will be provided using one or more of the following formats:
    1. Oral presentations and discussions
    2. Videos
    3. Distribution of educational literature
    4. Hands-on-equipment and work practice demonstrations

8. Trainers will be experienced in delivering training programs that address risk factors related to work and those not related to work. Trainers will also be familiar with the City of Bath operations. Training will be provided using one or more of the following sources:
    1. Internally developed resources
    2. Related publications

3. Outside Consultants
4. Maine Municipal Association Online Safety Training

All training sessions will be documented and all workers will be required to sign a training roster

Policy Availability

A copy of this policy will be made available, upon request, to employees or their designated representatives by contacting the department Program Coordinator

Who Approved This Policy: City Manager, January 15, 2016
History/Revision Dates:
January 15, 2016 **Origination Date:**
January 15, 2016 **Last Amended Date:**
January 15, 2016 **Next Review Date:**
January 15, 2017

Three Easy Rules to Avoid Back Injury

The following are three rules to follow in order to avoid painful back injuries:

1. Keep the Chest Forward

Always be sure to bend at the hips - not the low back. Most people believe bending their knees will ensure a safe lift, but this form alone can still lead to a back injury. The most important tip is to bend the hips and push the chest out, pointing forward. Also, one should never twist.

Bending the knees alone will still allow a person to curve the back and risk and injury, but keeping the chest pointing forward will guarantee a straight back. The back muscles will then be used most effectively for maintaining good posture, as they are designed to do. The knees will bend automatically so the muscles of the legs and hips will produce the power for lifting correctly.

2. Lead with the Hips, Not the Shoulders

Twisting is another dangerous mistake that can lead to back injury. The shoulders should be kept in line with the hips to avoid this movement. For changing directions, move the hips first so the shoulders will move in unison. When moving the shoulders first, the hips tend to lag behind creating the dangerous twisting that can cause back injury, especially to the joints in the back and pelvis.

3. Keep the Weight Close to the Body.

The further an object is held from one's center of gravity, the more force required to hold that object up. For example, for most people it is not too difficult to hold a gallon of milk close to the chest, but it can be quite difficult to hold a gallon of milk stretched out in front at arm's reach.

Of course, the milk does not get heavier when it is further from the body, but it does require much more force to hold it up. This extra force will also run through the lower back. Therefore, the closer the object is to one's body, the less likely it is to lead to back injury

Additional Lifting Techniques to Avoid Back Injury

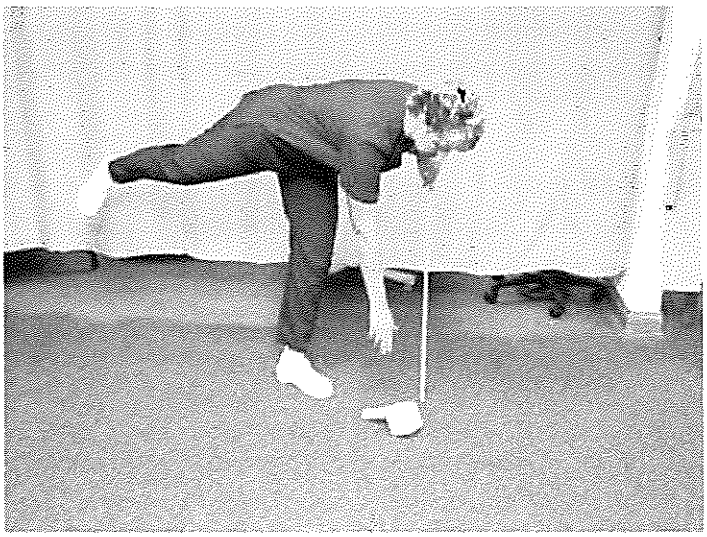
These three rules are applicable to most lifting situations. Following them whenever possible will reduce the amount of stress the back must go through during activity. This in turn makes a person less likely to sustain a back injury even when it is occasionally necessary to break the rules (when there is no other choice).

Of course, there are a few exceptions to these three guidelines. The following provides a quick overview of other safe approaches to lifting.

Golfer's Lift

This technique is very useful to avoid back injury when lifting out of a bin or picking small objects off the floor, such as a golf ball.

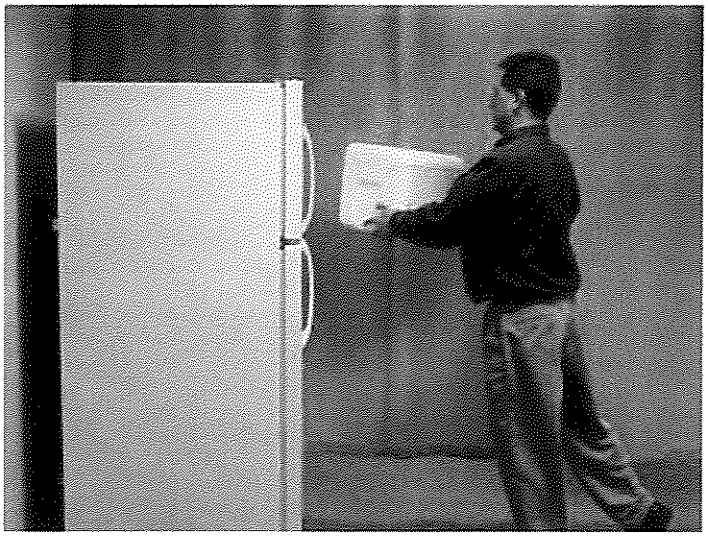
For this technique, the knees do not bend. One leg is allowed to come off the floor behind the lifter and acts as a counter balance. The opposite hip bends and the body becomes almost parallel to the floor, except for the leg bearing the person's weight. One arm reaches to pick up the object while the other is often hanging on a stationary object for support, such as a countertop or the top end of a golf club. Although the chest does point down toward the floor, it is a safe technique since lifting the back leg allows the spine to stay straight and the counter balance offsets the strain on the back.



Using Momentum

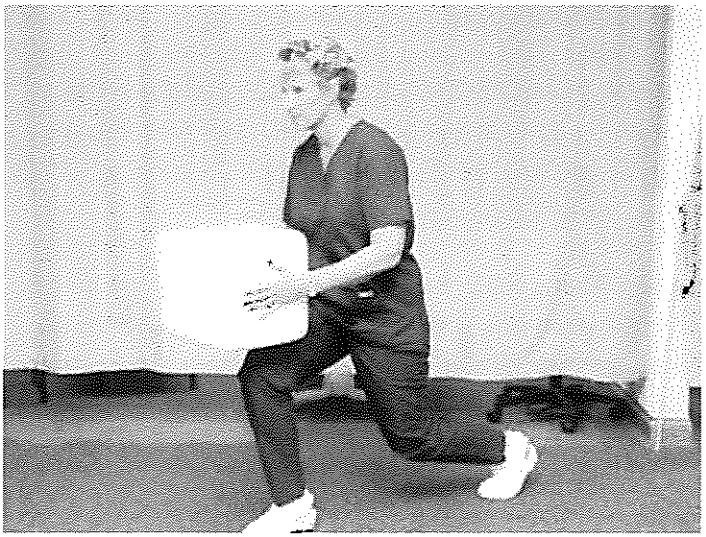
This method is especially helpful to avoid back injury when lifting a heavy object above the level of the waist. If done correctly, it looks like a controlled toss of the object. The lifter can keep moving towards the destination

of the object and swing it up to the surface. The object is then allowed to come away from the body and the momentum will help raise it, requiring less effort by the lifter.



Half Kneeling

This approach is useful for picking an awkward object off the floor. In this case, the lifter can kneel behind the object and first lift it on to the bended knee. Now the lifter can either straighten out the back knee to propel forward, or push with the front knee to propel backwards, depending on where the object needs to be carried. The chest may point down when the back leg is straightened, but the back will remain straight.



Again, not every situation will allow a person to use proper body mechanics, but using them on a regular basis whenever possible does greatly reduce a chance of sustaining a back injury while lifting.

How to sit correctly

If you work in an office and use a computer, you can avoid injury by sitting in the right position and arranging your desk correctly.

Support your back - Avoid back pain by adjusting your chair so that your lower back is properly supported. A correctly adjusted chair will reduce the strain on your back. Get one that is easily adjustable so that you can change the height, back position and tilt. Have your knees level with your hips. You may need a footrest for this.

Adjust your chair - Adjust your chair height so that you can use the keyboard with your wrists and forearms straight and level with the floor. This can help prevent repetitive strain injuries. Your elbows should be by the side of your body so that the arm forms an L-shape at the elbow joint.

Rest your feet on floor -Your feet should be flat on the floor. If they're not, ask if you can have a footrest, which lets you rest your feet at a level that's comfortable. Don't cross your legs, as this can cause posturerelated problems.

Place your screen at eye level - Your screen should be directly in front of you. A good guide is to place the monitor about an arm's length away, with the top of the screen roughly at eye level. To achieve this you may need to get a stand for your monitor. If the screen is too high or too low, you'll have to bend your neck, which can be uncomfortable.

Using the keyboard - Place your keyboard in front of you when typing. Leave a gap of about four to six inches (100mm-150mm) at the front of the desk to rest your wrists between bouts of typing. Your wrists should be straight when using a keyboard. Keep your elbows vertical under your shoulder and right by your side. Some people like to use a wrist rest to keep their wrists straight and at the same level as the keys.

Keep your mouse close - Position and use the mouse as close to you as possible. A mouse mat with a wrist pad may help to keep your wrist straight and avoid awkward bending. If you are not using your keyboard, push it to one side if using the mouse a lot.

Avoid screen reflection - Your screen should be as glare-free as possible. If there's glare on your screen, hold a mirror in front of it to identify the cause. Position the monitor to avoid reflection from overhead lighting and sunlight. If necessary, pull blinds across the windows and replace ceiling lighting with table lights. Adjusting the screen's brightness or contrast can make it much easier to use.

Working with spectacles - People with bifocal spectacles may find them less than ideal for computer work. It's important to be able to see the screen easily without having to raise or lower your head. If you can't work comfortably with bifocals, you may need a different type of spectacles. Consult your optician if in doubt.

Make objects accessible - Position frequently used objects, such as your telephone or stapler, within easy reach. Avoid repeatedly stretching or twisting to reach things.

Avoid phone strain - If you spend a lot of time on the phone, try exchanging your handset for a headset. Repeatedly cradling the phone between your ear and shoulder can strain the muscles in your neck.

Hand Tool Ergonomics - Health Hazards

What are the main health concerns in working with hand tools?

Along with common injuries such as cuts, lacerations, and bruises, the frequent and prolonged use of hand tools can cause soreness, aches, pains, and fatigue, which, when ignored, can lead to chronic musculoskeletal injuries (MSIs) of various kinds. The most common examples of these work-related musculoskeletal disorders (WMSDs) are tendonitis, bursitis, epicondylitis (tennis elbow), carpal tunnel syndrome and de Quervain's syndrome.

What factors of working with hand tools cause discomfort, fatigue and, eventually, work-related musculoskeletal disorders (WMSDs)?

Several work factors can affect the health and performance of hand tool users. Major ones include:

- static load on arms and upper body muscles
- awkward working positions and body postures
- tissue compression
- vibration

Static load

Static load or effort occurs when muscles are kept tense and motionless. Examples of static effort include holding the arms elevated (Figure 1a), or extended forwards or sideways (Figure 1b). (Try holding your arm straight out in front of you for a few minutes and you will see what we mean. Put any object in your outstretched hand and its weight will add to the static effort exponentially.) Bending and twisting the neck or the whole torso can also increase static load considerably. Add the exertion of force required by hand tools, and static load can increase still further (Figure 1c).

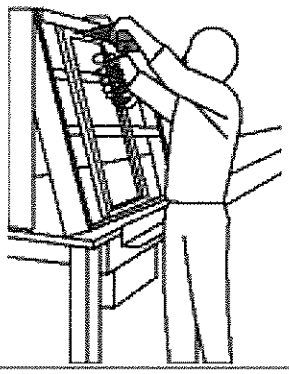


Figure 1a

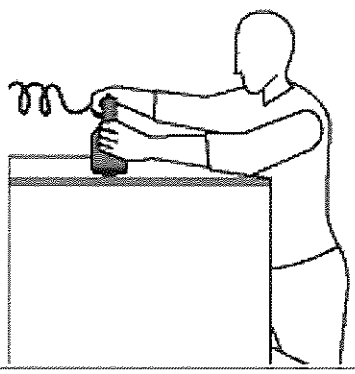


Figure 1b

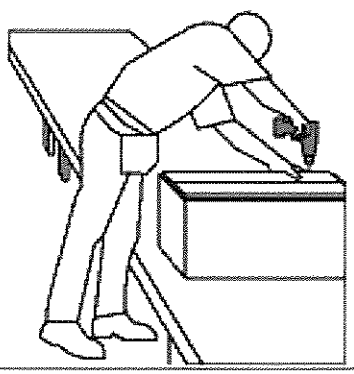


Figure 1c

Static effort, that is holding any strained position for a period of time, is a particularly undesirable component in any work situation. Static effort increases the pressure on both the muscles, as well as on tissues, tendons and ligaments. It also reduces blood flow which causes a localized fatigue at a much quicker rate than would be expected by performing dynamic work (involving movement). Statically loaded muscles are much more vulnerable to fatigue and subsequent injury than muscles which are performing dynamic work. Furthermore, muscles which are tired by static work take more than 10 times longer to recover from fatigue.

Awkward working positions and body postures

Hand tools are often (actually, more than often) used where the space is limited and access is difficult; see Figures 2a, 2b, 2c.

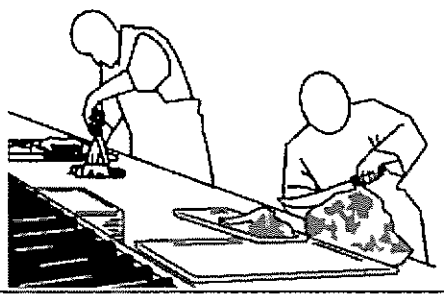


Figure 2a

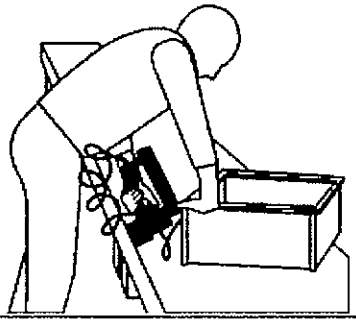


Figure 2b

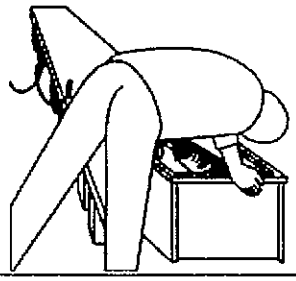


Figure 2c

When the hand holds and uses a tool in an awkward position it has less strength and is consequently more susceptible to soreness and eventual injury. If the arm is uncomfortable, the rest of the body is likely to be so as well, because it is natural to compensate for discomfort by trying to re-align the body by bending the back, rounding the shoulders, tilting the neck, and so on.

Awkward positions of the upper body considerably increase the effort needed to complete the task. The resulting fatigue, discomfort, and pain add further to the risk for developing injury.

Tissue compression from forceful grips

As a rule, using a hand tool requires a firm grip. The resulting compression of soft tissue in the palm and fingers may obstruct blood circulation, resulting in numbness and tingling. Blisters are also common due to friction between the palm of the hand and the handle of the tool.

Vibration

Certain heavy tools such as a chipping hammer can produce significant vibration which is responsible for handarm vibration syndrome (HAVS), more commonly known as white finger or Raynaud's syndrome.

Work-related Musculoskeletal Disorders (WMSDs)

What are work-related musculoskeletal disorders (WMSDs)?

Work-related musculoskeletal disorders (WMSDs) are a group of painful disorders of muscles, tendons, and nerves. Carpal tunnel syndrome, tendonitis, thoracic outlet syndrome, and tension neck syndrome are examples.

Almost all work requires the use of the arms and hands. Therefore, most WMSD affect the hands, wrists, elbows, neck, and shoulders. Work using the legs can lead to WMSD of the legs, hips, ankles, and feet. Some back problems also result from repetitive activities.

What are the risk factors for WMSDs?

WMSDs arise from arm and hand movements such as bending, straightening, gripping, holding, twisting, clenching and reaching. These common movements are not particularly harmful in the ordinary activities of daily life. What makes them hazardous in work situations is the continual repetition, often in a forceful manner, and most of all, the speed of the movements and the lack of time for recovery between them. WMSDs are associated with work patterns that include:

- Fixed or constrained body positions.
- Continual repetition of movements.
- Force concentrated on small parts of the body, such as the hand or wrist.
- A pace of work that does not allow sufficient recovery between movements.

Generally, none of these factors acts separately to cause WMSD. WMSDs commonly occur as a result of a combination and interaction among them.

Heat, cold and vibration also contribute to the development of WMSD.

How do WMSDs occur?

WMSDs include three types of injuries:

- Muscle injury.
- Tendon injury. Nerve injury.

Muscle Injury

When muscles contract, they use chemical energy from sugars and produce by-products such as lactic acid which are removed by the blood. A muscle contraction that lasts a long time reduces the blood flow. Consequently, the substances produced by the muscles are not removed fast enough, and they accumulate in the muscles. The accumulation of these substances irritates muscles and causes pain. The severity of the pain depends on the duration of the muscle contractions and the amount of time between activities for the muscles to get rid of those irritating substances.

Tendon Injury

Tendons consist of numerous bundles of fibres that attach muscles to bones. Tendon disorders related to repetitive or frequent work activities and awkward postures occur in two major categories --tendons with sheaths (Fig. 1), found mainly in the hand and wrist; and tendons without sheaths (Fig. 2), generally found around the shoulder, elbow, and forearm.

The tendons of the hand are encased in sheaths through which the tendon slides.

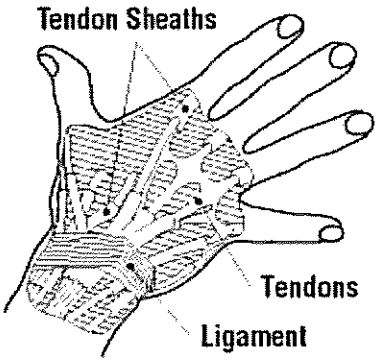


Figure 1 - Finger tendons and their sheaths

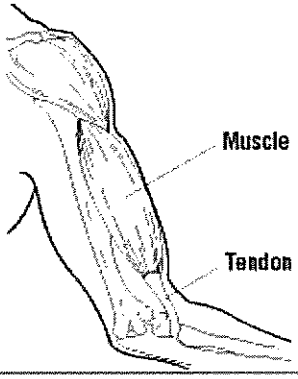


Figure 2 - Tendon, muscle, bone unit

The inner walls of the sheaths contain cells that produce a slippery fluid to lubricate the tendon. With repetitive or excessive movement of the hand, the lubrication system may malfunction. It may not produce enough fluid, or it may produce a fluid with poor lubricating qualities. Failure of the lubricating system creates friction between the tendon and its sheath, causing inflammation and swelling of the tendon area. Repeated episodes of inflammation cause fibrous tissue to form. The fibrous tissue thickens the tendon sheath, and hinders tendon movement. Inflammation of the tendon sheath is known as tenosynovitis.

When inflamed, a tendon sheath may swell up with lubricating fluid and cause a bump under the skin. This is referred to as a ganglion cyst.

Tendons without sheaths are vulnerable to repetitive motions and awkward postures. In fact, when a tendon is repeatedly tensed, some of its fibres can tear apart. The tendon becomes thickened and bumpy, causing inflammation. Tendonitis is the general term indicating inflammation of the tendon. In some cases, such as in the shoulder, tendons pass through a narrow space between bones. A sac called the bursa filled with lubricating fluid is inserted between the tendons and the bones as an anti-friction device. As the tendons become increasingly thickened and bumpy, the bursa is subject to a lot of friction and becomes inflamed. Inflammation of the bursa is known as bursitis.

Nerve Injury

Nerves carry signals from the brain to control activities of muscles. They also carry information about temperature, pain and touch from the body to the brain, and control bodily functions such as sweating and salivation. Nerves are surrounded by muscles, tendons, and ligaments. With repetitive motions and awkward postures, the tissues surrounding nerves become swollen, and squeeze or compress nerves (Fig. 3A, 3B).

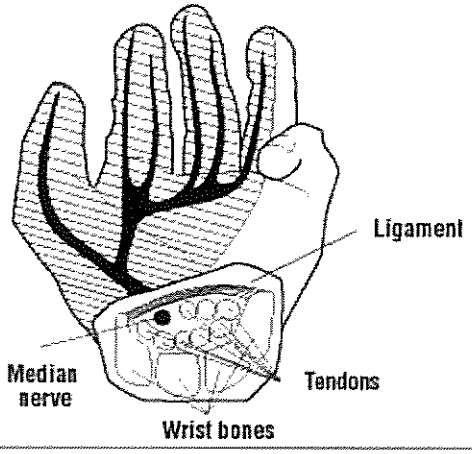


Figure 3A - Wrist in natural condition

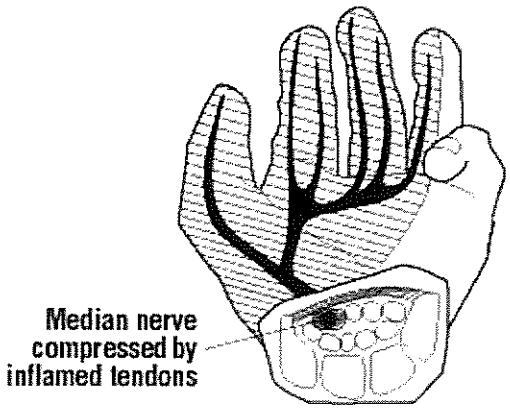


Figure 3B - Wrist showing symptoms of Carpal Tunnel Syndrome

Compression of a nerve causes muscle weakness, sensations of "pins and needles" and numbness. Dryness of skin, and poor circulation to the extremities, may also occur.

What are the symptoms of WMSDs?

Pain is the most common symptom associated with WMSDs. In some cases there may be joint stiffness, muscle tightness, redness and swelling of the affected area. Some workers may also experience sensations of "pins and needles," numbness, skin colour changes, and decreased sweating of the hands.

WMSDs may progress in stages from mild to severe.

Early stage: Aching and tiredness of the affected limb occur during the work shift but disappear at night and during days off work. No reduction of work performance.

Intermediate stage: Aching and tiredness occur early in the work shift and persist at night. Reduced capacity for repetitive work.

Late stage: Aching, fatigue, and weakness persist at rest. Inability to sleep and to perform light duties.

Not everyone goes through these stages in the same way. In fact, it may be difficult to say exactly when one stage ends and the next begins. The first pain is a signal that the muscles and tendons should rest and recover. Otherwise, an injury can become longstanding, and sometimes, irreversible. The earlier people recognize symptoms, the quicker they should respond to them.

The table below outlines occupational risk factors and symptoms of the most common disorders of the upper body associated with WMSDs.

Identified disorders, occupational risk factors and symptoms		
Disorders	**Occupational risk factors**	**Symptoms**

Tendonitis/tenosynovitis	Repetitive wrist motions Repetitive shoulder motions Sustained hyper extension of arms Prolonged load on shoulders	Pain, weakness, swelling, burning sensation or dull ache over affected area
Epicondylitis (elbow tendonitis)	Repeated or forceful rotation of the forearm and bending of the wrist at the same time	Same symptoms as tendonitis
Carpal tunnel syndrome	Repetitive wrist motions	Pain, numbness, tingling, burning sensations, wasting of muscles at base of thumb, dry palm
DeQuervain's disease	Repetitive hand twisting and forceful gripping	Pain at the base of thumb
Thoracic outlet syndrome	Prolonged shoulder flexion Extending arms above shoulder height Carrying loads on the shoulder	Pain, numbness, swelling of the hands
Tension neck syndrome	Prolonged restricted posture	Pain

How are WMSDs treated?

The treatment of WMSDs involves several approaches including the following:

- Restriction of movement.
- Application of heat or cold.
- Exercise.
- Medication and surgery.

Restriction of Movement

The first approach to treatment of WMSDs is to avoid the activities causing the injury. This often requires work restrictions. In some cases, transfer to a different job should be considered. A splint can also be used to restrict movements or to immobilize the injured joint. However, the use of splints in occupational situations requires extreme caution. If used inappropriately, splints can cause more damage than good. Splints are usually used for two reasons: to mechanically support a joint where an excessive load on the joint is anticipated, or to restrict the movement of the injured joint.

In the occupational context, splints should not be used as a mechanical support for the joint. Instead, the job should be redesigned to avoid the extreme load on the worker's joint in the first place. To be effective, the use of splints to immobilize an affected joint also requires that the work activity that caused the injury be stopped or changed. If injurious work continues, then the worker is exposed to risk of injury to other joints that have to compensate for the one that is splinted.

Application of Heat or Cold

Applying heat or cold seems to relieve pain and may accelerate the repair process.

Cold reduces pain and swelling and is recommended for injuries and inflammations (tissues that are swollen, red, hot and inflamed). The use of ice it is not recommended in case of muscle pain (spasm) because cold temperature will contract the muscle even more. Application of ice on painful muscle is recommended only immediately after an injury occurred, and only for few days.

Heat is recommended for muscle pain relief. Heat increases the flow of blood which facilitates the elimination of lactic acid build up. It is not recommended for injuries with significant inflammation and swelling.

Exercise

Stretching is beneficial because it promotes circulation and reduces muscle tension. However, people suffering from WMSDs should consult a physical therapist before exercising. Stretching or exercise programs can aggravate the existing condition if not properly designed.

Medication and Surgery

Anti-inflammatory drugs can reduce pain and inflammation. The doctor may try more elaborate treatments or even surgery if all other approaches fail.

How can we prevent WMSDs?

Hazards are best eliminated at the source; this is a fundamental principle of occupational health and safety. In the case of WMSDs, the prime source of hazard is the repetitiveness of work. Other components of work such as the applied force, fixed body positions, and the pace of work are also contributing factors. Therefore the main effort to protect workers from WMSDs should focus on avoiding repetitive patterns of work through job design which may include mechanization, job rotation, job enlargement and enrichment or teamwork. Where elimination of the repetitive patterns of work is not possible or practical, prevention strategies involving workplace layout, tool and equipment design, and work practices should be considered. **Job Design**

Mechanization

One way to eliminate repetitive tasks is to mechanize the job. Where mechanization is not feasible or appropriate, other alternatives are available.

Job Rotation

Job rotation is one possible approach. It requires workers to move between different tasks, at fixed or irregular periods of time. But it must be a rotation where workers do something completely different. Different tasks must engage different muscle groups in order to allow recovery for those already strained.

However, job rotation alone will not be effective in reducing WMSDs if not combined with the proper design of workstations. And it will not be effective while the high pace of work persists.

Job Enlargement and Enrichment

Another approach is job enlargement. This increases the variety of tasks built into the job. It breaks the monotony of the job and avoids overloading one part of the body. Job enrichment involves more autonomy and control for the worker.

Team Work

Team work can provide greater variety and more evenly distributed muscular work. The whole team is involved in the planning and allocation of the work. Each team member carries out a set of operations to complete the whole product, allowing the worker to alternate between tasks, hence, reducing the risk of WMSDs.

Workplace Design

The guiding principle in workplace design is to fit the workplace to the worker. Evaluation of the workplace can identify the source or sources of WMSD. Proper design of the workstation decreases the effort required of the worker to maintain a working position. Ideally, the workstation should be fully adjustable, providing a worker with the options to work in standing, sitting or sitting-standing positions, as well as fitting the worker's body size and shape. Detailed information about proper workplace design can be found in the OSH Answers documents Working in a Standing Position (http://www.ccohs.ca/oshanswers/ergonomics/standing/) and Working in a Sitting Position (http://www.ccohs.ca/oshanswers/ergonomics/sitting/).

Tools and Equipment Design

Proper design of tools and equipment significantly decreases the force needed to complete the task.

Providing the worker with the proper jigs or fixtures for tasks that require holding elements saves a lot of muscular effort in awkward positions.

Good tools, maintained carefully and where necessary frequently changed, can also save a lot of muscle strain.

Work Practices

A well-designed job, supported by a well-designed workplace and proper tools, allows the worker to avoid unnecessary motion of the neck, shoulders and upper limbs. However, the actual performance of the tasks depends on individuals.

Training should be provided for workers who are involved in jobs that include repetitive tasks. Workers need to know how to adjust workstations to fit the tasks and their individual needs. Training should also emphasize the importance of rest periods and teach how to take advantage of short periods of time between tasks to relax the muscles, and how to consciously control muscle tension throughout the whole work shift.

Increased communication and support together with an increased ability of the worker to control his job (where possible) are work practices that improve worker's satisfaction and have a positive impact on reducing the risk of WMSDs.

City of Bath, Maine
Annual Policy Review

Policy Availability
A copy of this policy will be made available, upon request, to employees or their designated representatives by contacting the Department Program Coordinator

Policy Name: Ergonomics

Who Reviews This Policy?
City Safety Committee

Who Approves This Policy?
City Manager

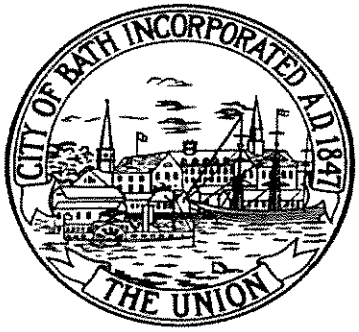
History/Revision Dates:
March 2015, November 2017, October 2021

Last Amended Date:
October 2021

Next Review Date:
October 2022

Comments/Notes:

City Manager's Signature: _____ **Date:** 11/9/21



CITY OF BATH

ACKNOWLEDGEMENT OF ERGONOMIC POLICY

I have read and understand the City of Bath Ergonomic Policy. I have received a copy and know where to access a copy for reference.

I understand that I must abide by all procedural rules and that failure to do so can result in disciplinary action up to and including termination.

Signed: _____

Printed Name:_____

Date: _____