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TITLE: REPETITIVE MOTION INJURIES

Policy: This repetitive motion injuries or ergonomics program is policy that sets forth a combination of workplace training, evaluation of workstations and work practices, and the implementation of ergonomic control strategies.

Purpose: The purpose of the DC Office of the Chief Medical Examiner (OCME) Repetitive Motion Injuries Program is to provide employees with a basic understanding of ergonomics as it relates to the work at OCME and to prevent the pain and suffering to employees, as well as costs to the District associated with ergonomic related injuries.

Scope: The OCME Repetitive Injury Program encompasses all OCME employees whose job functions have the potential for work related injuries and disorders. Certain aspects of job tasks and work environments contain risk factors that may contribute to injury or disability. Through proper ergonomic assessment, potential injuries and disorders may be reduced, prevented and even eliminated.

1. REPETITIVE MOTION INJURIES

1.1. The table below illustrates the relationship between OCME work settings, job tasks, risk factors, and body areas that may be affected.

Work Settings	Job Tasks	Risk Factors	Affected Body Areas
Office & Computer	Word Processing (typing), Data Entry and Web surfing (mouse use), Filing systems	Frequency, Duration, Force	Hands, wrists, arms, neck, shoulders, back, legs
Laboratory & Autopsy Suite	Autopsy procedures, Pipette use, microscope use	Posture, Frequency, Duration	Hands, arms, neck, back, legs
Manual Handling	Carrying and transporting decedents or heavy materials	Posture, Heavy Exertion, Force	Back, arms, shoulders, legs

2. DEFINITIONS

2.1. Ergonomics: The study of the relationship between people, their work and their physical work environment. The major goal of ergonomics is to fit the job to the individual and promote healthy and safe work practices.

2.2. Ergonomic Stressors: Poor workplace designs can present ergonomic risk factors called stressors. These stressors may include: *Repetition* – the number of motions or movements that are performed per cycle or per shift; *Force* – the power of the muscles used to produce motion in order to perform necessary activities such as lifting, grasping, pinching, pushing, etc.; and *Extreme Postures* – when muscles are required to work at a level near or at their maximum capacity.

2.3. Musculoskeletal Disorder (MSD): An injury or illness of the soft tissues of the upper extremity, shoulders and neck, lower back, and lower extremity that is primarily caused or exacerbated by workplace risk factors, such as sustained and repeated exertions or awkward postures and manipulations. (Examples include: tendonitis, epicondylitis, rotator cuff syndrome, low-back pain.)

2.4. Repetitive Motion Injury (RMI): Also known as repetitive stress injuries, an RMI is a type of stress injury that results from repetitive motions such as frequent bending or sustained awkward positioning performed over extended periods of time without allowing for sufficient rest. Examples of RMI are medical conditions resulting from repeated use of a body part.

3. COMMON ERGONOMIC INJURIES

3.1. Ergonomic injuries are known as work-related musculoskeletal disorders:

3.1.1. Cumulative Trauma Disorders (CTD)

- CTD can affect the upper and lower arms, elbows, wrists, hands and fingers; shoulders and neck; and lower limbs and back.
- Causes: constant repetitive motion activity over a period of time coupled with awkward posture or force.
- Symptoms may include numbness or a tingling sensation in the fingers, palms or other body locations. Soreness or pain may also be present. Difficulty in moving fingers, shoulders, elbows, wrists or back may accompany these symptoms.

3.1.2. Carpal Tunnel Syndrome (CTS)

- CTS is a condition that occurs in the wrist.

- Causes: repeated movement of the flexor tendons in the fingers coupled with awkward extension and flexion posture in the wrist; over time, swelling will result in the carpal tunnel of the wrist causing pressure to the median nerve.
- Symptoms include numbness or tingling sensation in the fingers, palms or other areas. Painful tingling in one or both hands may occur during the night while sleeping. Weakness and a decreased ability to squeeze or hold objects may also occur.

3.1.3. Tendonitis

- Tendonitis occurs when a muscle tendon becomes inflamed.
- Causes: a tendon is subjected to a short or prolonged forceful strain.
- Symptoms may initially involve dull localized pain and soreness. Swelling may also be present. As the condition progresses, damage to the tendon increases.

3.1.4. Back Disorders

- Back Disorders include pulled or strained muscles, ligaments, tendons and disks cause most common back problems.
- Causes: lifting or carrying loads that are too great, twisting, remaining in an awkward posture for an extended period of time.
- Symptoms may include backaches and the inability to lift or maneuver.

4. RESPONSIBILITIES

4.1. Cooperation and communication between supervisors and employees is necessary to identify and address and/or correct ergonomically related issues.

4.1.1. **Employees**: It is the responsibility of employees to access proper ergonomics training to improve their work practices if necessary. Employees must utilize equipment correctly and implement proper working techniques. If an employee is experiencing any signs or symptoms of musculoskeletal disorders, the employee is to report the symptoms to the supervisor. Procedures outlined in the Incident Management section of this document should be followed, specifically the completion of an Employee Accident Form by the employee. Employees must also cooperate in the early identification and reporting of hazards and/or injury symptoms or work environments.

4.1.1.1. Employees with medical work-related restrictions will provide their supervisor and the OCME Americans with Disabilities Act (ADA) Coordinator with appropriate medical documentation to assist in identifying reasonable accommodations, if possible, for work duties.

4.1.2. **Work Unit Specific Supervisor**: It is the responsibility of each department head and/or supervisor to support or recommend proper training for ergonomics for staff. Additionally, they are responsible for implementation of ergonomic recommendations if necessary. The supervisor is responsible for accepting employee injury reports and providing the information to Disability Compensation, per the Incident Management section of this document. The supervisor is responsible for investigating possible causes or risk factors associated with an incident or report to correct or reduce possible or alleged ergonomic risk factor exposure.

4.1.3. **Risk Assessment Control Committee (RACC)**:It is the responsibility of the OCME RACC to evaluate and monitor the ergonomics program including: assessing the nature and extent of ergonomics hazards, recommending ways of minimizing or controlling these hazards, and supporting OCME in consultation and direction regarding ergonomics.

5. ERGONOMIC SELF-EVALUATION

5.1. On an annual basis, the OCME RACC shall conduct an *Ergonomic Self-Evaluation* as a tool in becoming aware of ergonomic issues. Employees should also periodically assess and modify their own workstations.

5.2. Based on evaluations, written documentation for eliminating or reducing the identified ergonomic risk factors is developed or modified as necessary and provided to the employee and their supervisor. There are two general approaches to controlling ergonomic risks that will be implemented based on evaluations:

5.2.1. Engineering Controls – Equipment can be designed or added to an existing work task to eliminate ergonomic risk factors. Changes can be made to the workstations, tools, and/or machinery that alter the physical composition of an area or process.

5.2.2. Administrative or Work Practice Controls – Ergonomic risk factors can be minimized or eliminated by incorporating proper body mechanics and neutral postures. Changes can be made to regulate exposure without making physical changes to the area or process; for example, taking frequent breaks and job rotations.

5.3. *Ergonomic Self-Evaluation* will be based on observations as follows:

- Equipment used (mouse, keyboard, pipettes, microscope, stretchers)
- Work environment including workspace, access, lighting and glare
- Specific tasks or job processes and percentages of time performing tasks
- Workstation alignment (employee/keyboard/monitor in straight line)

- Workbench or workstation and lab equipment alignment
- Keyboard height, tilt and distance from employee; Mouse placement; Monitor height, tilt, and distance from employee
- Chair height, back support, and adjustability
- Document placement
- Manual filing and recordkeeping processes
- Hand tool and equipment usage
- Other employee practices that may be a contributing factor

6. REPORTING REQUIREMENTS

6.1. **Employee** shall report ergonomic concerns to their supervisor as soon as possible. If an employee experiences any signs or symptoms of musculoskeletal disorders, the employee is to report their symptoms to their supervisor. In addition, the employee shall complete an Employee Accident Form and follow procedures outlined in the Incident Management section of this manual. Employees may also wish to consult their personal physicians to rule out any other underlying causes.

6.2. **Supervisor** will assess the report with the Agency Risk Management Representative (ARMR) and the RACC. As required, the supervisor will follow the appropriate reporting requirements outlined in the Incident Management section of this manual.

7. TRAINING

7.1. An annual ergonomics training course will be offered for all employees to be conducted by the RACC. All employees are provided written documentation for eliminating or reducing the identified ergonomic risk factors.

8. RISK PREVENTION TECHNIQUES

8.1. The following techniques are documentation on eliminating or reducing identified ergonomic risk factors, including: computer workstation, laboratory, lifting techniques, maintaining a healthy back and body/hand/arm vibration.

8.1.1. Computer Workstations: Many ergonomic problems associated with computer workstations occur in the forearm, wrist, and hand. Continuous work on the computer exposes soft tissues in these areas to repetition, awkward postures, and forceful exertions. The following adjustments should be made to your workstation to help prevent the development of an ergonomic problem in the upper extremities:

- Adjust keyboard height so shoulders can relax and allow arms to rest at sides (an articulating keyboard tray is often necessary to accommodate proper height and distance).
- Keyboard should be close to the user to avoid excessive extended reaching.
- Forearms parallel to the floor (approximately 90 degree angle at elbow).

- Mouse should be placed adjacent to keyboard and at the same height as the keyboard (use articulating keyboard tray if necessary).
- Avoid extended and elevated reaching for keyboard and mouse. Wrist should be in neutral position (not excessively flexed or extended).

8.1.1.1. *Monitors*: With regard to the monitor, one must take into consideration how the placement and maintenance of the monitor can affect both the eyes and the musculoskeletal system. The following suggestions can help prevent the development of eye strain, neck pain and shoulder fatigue while using your computer workstation:

- Make sure the surface of the viewing screen is clean.
- Adjust brightness and contrast to optimum comfort.
- Position the monitor directly in front of user to avoid excessive twisting of the neck.
- Position the monitor approx. 20-26 inches (arm's length) from user.
- Tilt top of the monitor back 10 to 20 degrees.
- Position monitors at right angles from windows to reduce glare.
- Position monitors away from direct lighting which creates excessive glare or use a glare filter over the monitor to reduce glare.
- The top of the viewing screen should be at eye level when the user is sitting in an upright position (NOTE: Bifocal wearers may need to lower monitor a couple of inches)

8.1.1.2. *Sitting/Adjusting Chair*: Contrary to popular belief, sitting, which most people believe is relaxing, is hard on the back. Sitting for long periods of time can cause increased pressure on the intervertebral discs – the springy, shock-absorbing part of the spine. Sitting is also hard on the feet and legs. Gravity tends to pool blood in the legs and feet and create a sluggish return to the heart. The following recommendations can help increase comfort for computer users:

- "Dynamic sitting", don't stay in one static position for extended periods of time.
- When performing daily tasks, alternate between sitting and standing.
- Adjust height of backrest to support the natural inward curvature of the lower back.
    - It may be useful to use a lumbar pad to support the low back.
    - The backrest angle is set so that your hip-torso angle is 90 degrees or greater.
- Adjust height of chair so feet rest flat on floor (use footrest if necessary).

- Sit upright in the chair with the low back against the backrest and the shoulders touching the backrest.
- Thighs should be parallel to the floor and knees at about the same level as the hips.
- Back of knees should not come in direct contact with the edge of the seat pan (there should be 2-3 inches between the edge of the seat and the back of the knee).
- Don't use armrests to slouch.
- Adjust height and/or width of armrests so they allow the user to rest arms at their sides and relax/drop their shoulders while keyboarding.
- Where armrests are used, elbows and lower arms should rest lightly so as not to cause circulatory or nerve problems.

8.1.1.3. Desktops for Computer Workstations

8.1.1.3.1. If you are like many computer users, your computer, keyboard, and mouse are resting on your desk or a portable computer workstation. There is no specific height recommended for your desktop; however, the working height of your desk should be approximately elbow height for light duty desk work.

8.1.1.3.2. To allow for proper alignment of your arms your keyboard should be approximately 1 inch to 2 inches above your thighs (See Keyboard & Mouse 8.1.1.4). Most times this requires a desk which is 25 inches to 29 inches in height (depending upon size of individual) or the use of an articulating keyboard tray. The area underneath the desk should always be clean to accommodate the user's legs and allow for stretching.

8.1.1.3.3. The desktop should be organized so frequently used objects are close to the user to avoid excessive extended reaching. If a document holder is used, it should be placed at approximately the same height as the monitor and at the same distance from the eyes to prevent frequent eye shifts between the screen and reference materials.

8.1.1.4. Keyboard and Mouse

8.1.1.4.1. Do not rest the hand on the mouse when you are not using it. Rest hands in your lap when not entering data

8.1.1.5. Lighting for Computer Workstations

8.1.1.5.1. Lighting not suited to working with a Video Display Terminal is a major contributing factor in visual discomforts including eyestrain,

burning or itching eyes, and blurred or double vision. Typical office environments have illumination levels of 75 to 100 foot-candles, but according to the American National Standards Institute (ANSI), computer workstations require only 18 to 46 foot-candles.

8.1.1.5.2. Use the following recommendations to reduce eyestrain and eye fatigue:

- Close drapes/blinds to reduce glare. Adjust lighting to avoid glare on screen (light source should come at a 90 degree angle, with low watt lights rather than high.) Place monitor at 90 degree angle to windows (where possible). Reduce overhead lighting (where possible). Use indirect or shielded lighting where possible. Walls should be painted medium or dark color and not have reflective finish.
- Use a glare screen to reduce glare (alternatively, place a large manila folder on top of the monitor and let it hang over the monitor 2 inches - 3 inches to reduce glare from overhead lighting).

9. LABORATORY

9.1. Repetitive Pipetting. The following are recommended for control of ergonomic hazards associated with repetitive pipetting:

- Use pipettes with newer trigger mechanisms requiring less force to activate, and use the pointer finger to aspirate and the thumb to dispense e.g., Rainin-Latch Mode Pipette;
- Use pipettes that fit comfortably in the user's hand.
- For tasks such as mixing or aliquotting, use an electronic pipettor with mixing functions.

9.1.1. Additional Recommendations:

- Use a multichannel pipettor for large aliquotting tasks.
- Take micro-breaks of 2 minutes for every 20 minutes of pipetting. Mild hand exercises and stretches are beneficial
- Clean pipettes on scheduled basis; (this reduces "sticking" and improves quality of work)
- Adjust the workstation so the individual doesn't have to work with their arms in an elevated position. Work with arms close to the body.
- Rotate pipetting activities between laboratory tasks, hands, and people.
- Use thin-wall pipette tips that fit correctly and are easy to eject.
- Use minimal force when applying pipette tips.
- Keep samples and instruments within easy reach.
- Use an adjustable stool or chair when sitting at a lab bench

- If it is necessary to stand for long periods of time during pipetting, use an anti-fatigue matting.

9.2. Microscopy

9.2.1. The following are recommended to control hazards associated with microscopy:

- Try pulling the microscope toward the edge of the work surface to position the operator in a more upright posture.
- Try elevating the microscope. This can help position the operator in a more upright posture and reduce rounding of the shoulders and neck.
- Maintain neutral spine.
- Use an ergonomically designed chair that provides adequate back support, adjustable height, and adjustable seat angle.

9.2.2. Proper Workstation setup for Microscopy:

- Use armrests to support the operator's forearms while using adjustment knobs on the microscope.
- Make sure there is adequate room under the work surface so the operator can pull the chair up to the ocular(s).
- Provide footrests and discourage the use of foot rings on stools.
- Provide sit-stand seats for areas where there is restricted leg room.
- Encourage frequent breaks from microscopy work as well as stretching exercises
- Use television systems where possible to eliminate the use of binocular eyepieces.

9.2.3. Biosafety Cabinets and Laboratory Workbenches

9.2.3.1. The following are recommended for control of ergonomic hazards associated with biosafety cabinets and laboratory workbenches:

- Use an ergonomically designed chair that provides adequate back support, adjustable seat angle, and height adjustability between 28 inches to 33 inches.
- Use footrests for individuals whose feet do not rest comfortably on the floor.
- Apply closed-cell foam padding to the front edge of the biosafety cabinet (away from the downdraft) or workbench. This reduces contact forces by increasing the surface area that comes into contact with the forearm and therefore reduces the chances of impinging nerves, tendons, or blood vessels.

If applying closed-cell padding to front edge of biosafety cabinet, make sure the material can be properly decontaminated.

- Remove drawers, supplies, refrigerators, etc. from under the workbenches and cabinet doors from under biosafety cabinets (provides leg room).
- Use a turntable to store equipment near the worker. This reduces excessive reaching and twisting, which places an increased load on the low back.
- Use anti-fatigue matting for laboratory personnel who must stand for extended periods of time.
- Take frequent micro-breaks to perform stretching exercises

9.2.4. Microtome or Cryostat

9.2.4.1. The following are recommended for control of ergonomic hazards associated with microtome or cryostat:

- Lower the workstation to keep arms closer to body.
- Apply padding to the front edge of work surface to eliminate sharp edges and increase the amount of blood flow to the hands.
- Retrofit the existing handle with an adapter that will allow the operator to use the hand wheel in a pistol grip position. This will alleviate repetitive wrist flexion and extension.
- Consider use of an automatic foot operated cryostat when frequent cryosectioning is performed.
- Avoid placing utensils such as forceps inside the cryostat.
- Use an ergonomically designed chair).
- Take frequent "micro-breaks". These breaks should be used to perform stretching exercises, especially the hands

9.2.5. Flow Cytometer

9.2.5.1. The use of a flow cytometer requires frequent lateral bending, neck and back flexion, and extended arm reaching. This is due to the receiving port being located on the bottom of the flow cytometer. The operator must sit in awkward positions in order to see the controls. The following are recommended for control of ergonomic hazards associated with using a flow cytometer:

- Raise the flow cytometer by placing a block between the flow cytometer and the workbench.
- Use an electric or hydraulic adjustable table. Each individual will be able to adjust the flow cytometer to a height which is most comfortable.
- Use an ergonomically designed chair

- Place the top of the monitor so the top of the screen is approximately at eye level.

9.2.6. Glove Boxes or Anaerobic Chambers

9.2.6.1. Working in glove boxes or anaerobic chambers requires extended static loading on the shoulders. Extending the arms for more than a couple of minutes can become very exhausting. In addition to static loading and frequent side reaching, the thick gloves also make the user over compensate on grip strength. The following are recommended for control of ergonomic hazards associated with using a glove box:

- Move all needed materials for the experiment from the side chamber to the main chamber at one time to reduce the amount of side reaching.
- Use highly absorbent hand powder for glove comfort.
- Utilize job enlargement to avoid long continuous use of glove boxes.
- Provide anti-fatigue matting for extended use of the glove box.
- If necessary, use a sit-stand seat to alleviate stress on the low back.
- Take frequent breaks to perform stretching exercises and relieve static loading from the shoulders

9.2.7. Manipulating Centrifuge Rotors

9.2.7.1. Centrifuge rotors present a unique lifting hazard in the laboratory. The following are recommended for control of ergonomic hazards associated with lifting centrifuge rotors:

- Use a second person to assist with the lift. Use a cart to transport rotors. Look for manufacturers' which produces lighter weight rotors.
- Implement a pulley system, which would attach to the ceiling directly above the centrifuge.

9.2.8. Micro-Manipulation & Fine Motor Skills

9.2.8.1. The following are recommended for control or ergonomic hazards associated with micro-manipulation techniques:

- Use plastic vials with fewer threads. This will reduce twisting motions during capping and uncapping lids.
- Use small pieces of foam similar to the type used on pencils and pens, to prevent soreness on the fingertips, where fingers and forceps articulate.

This will distribute the force over a greater surface area, thus reducing the compressive forces on the soft tissue.

- Practice using the forceps between the 1st and 2nd digits instead of using the thumb and 1st digit. Then try alternating between the two positions to reduce the use of the thumb. The thumb is used repetitively with almost every job task performed in the laboratory.
- Tilt storage bins toward the worker to reduce wrist flexion while reaching for supplies.
- Encourage micro-breaks and hand exercises

10. LIFTING WITH PROPER TECHNIQUES

10.1. Lifting is strenuous— it requires proper training and technique. By lifting with your large, strong leg muscles instead of the small muscles of the back, you can prevent back injuries and reduce low back pain. There are five steps to follow when lifting an object:

10.1.1. Get close to the load – Get as close to the load as possible, as if you're hugging the object. Having the object close to your body put less force on your low back.

10.1.2. Maintain your curves – Keep yourself in an upright position while squatting to pick up .

10.1.3. Tighten your stomach muscles – Tightening the stomach helps support the spine. Don't hold your breath while tightening the muscles.

10.1.4. Lift with your legs – Your legs are the strongest muscles in your body so use them.

10.1.5. Pivot, don't twist – Turn with your feet, not your back. It isn't built for twisting from side to side.

10.1.6. Large or Heavy Loads – If a load is too heavy to lift alone, ask for help. Pick one person to coach the lift , this way you lift and lower at the same time.

10.1.7. Overhead Loads – If a load is above your shoulders, use a step stool to elevate yourself until the load is at least chest level preferably waist height. Pull the object close to your body and then lift. Remember to maintain your curves. Use your arms and legs to do the work.

10.2. Maintaining a Healthy Back

10.2.1. Maintain your curves – The muscles in the back are unlike many other muscles in your body, they are almost always in use. They hold your torso in an upright position throughout your day. They assist you every time you pick something up, whether it's a pen or a concrete block. They support posture while you sit in your chair, and they even work at night when you sleep.

10.2.1.1. Three Curves of Your Back – Your back is composed of three natural curves that form an S-shape. When your three natural curves are properly aligned, your ears, shoulders, and hips are in a straight line. Without support from strong, flexible muscles, your back loses its three natural curves. Poor posture can lead to pain and serious injury. When you use good posture, your back is aligned in three natural curves supported by strong, flexible muscles. Good posture helps prevent back strain and pain.

10.2.1.2. Aerobic Exercise – Aerobic exercise also stretches and strengthens the muscles that support your low back, which combined with healthy eating can also help you maintain your ideal weight. If you are overweight, the extra pounds add to the strain on your low back. Aerobic exercise like walking, can help you lose weight.

10.2.1.3. Proper Rest – The best position for resting the back muscles is lying on your back on your living room floor with a pillow under your knees and a rolled up towel under your neck. You can also lie on your side in the fetal position. Bend the knees to reduce strain on the low back and put a pillow between your knees, and under your head and neck to keep them level.

11. WHOLE-BODY AND HAND/ARM VIBRATION

11.1. Whole-body vibration is experienced in any work condition that involves sitting, standing, or lying on a vibrating surface. Excessive levels and durations of exposure to whole-body vibrations may contribute to back pain and performance problems.

11.2. If you spend a considerable amount of your work day on a vibrating seat or floor and experience any of the following signs or symptoms contact your supervisor.

- Blurred vision
- Decrease in manual coordination Drowsiness (even with proper rest) Low back pain Insomnia
- Headaches or upset stomach

11.3. Hand-arm Vibration

11.3.1. Vibrating hand tools or work pieces transmit vibrations to the holder, and depending on the vibration level and duration factors, may contribute to Raynaud's

syndrome or vibration-induced white finger disorders. These disorders show a progression of symptoms beginning with occasional or intermittent numbness or blanching of the tips of a few finger to more persistent attacks, affecting greater parts of most fingers and reducing tactile discrimination and manual dexterity. If you notice the onset of any of these symptoms, contact your supervisor.

11.3.2. The following recommendations can help reduce the likelihood of developing hand-arm vibration syndromes:

- Select power tools with anti-vibration properties.
- Use handle coatings that suppress vibrations. Increase coefficient of friction on handles to reduce force requirements. Keep power tools balanced and lubricated to minimize vibration. Job rotation-have more than one person perform tasks that involve exposure to hand-arm vibration.
- Use vibration attenuation gloves.

11.4. Hand Tool Use & Selection Principles

11.4.1. Implementing the following suggestions for proper selection and usage of hand tools will help reduce the likelihood of developing work-related musculoskeletal disorders (WMSDs) in the hands, wrists, and arms:

- Maintain straight wrists. Avoid bending or rotating the wrists; a variety of bent-handle tools are commercially available.
- Avoid static muscle loading. Reduce both the weight and size of the tool. Do not raise or extend elbows when working with heavy tools. Provide counter balance support devices for larger, heavier tools.
- Avoid stress on soft tissues. Stress concentrations result from poorly designed tools that exert pressure on the palms or fingers. Examples include short-handled pliers and tools with finger grooves that do not fit the worker's hand.
- Reduce grip force requirements. The greater the effort to maintain control of a hand tool, the higher the potential for injury. A compressible gripping surface rather than hard plastic should be used.
- Whenever possible, select tools that use a full-hand power grip rather than a precision finger grip.
- Avoid sharp edges and pinch points. Select tools that will not cut or pinch the hands even when gloves are not worn.
- Avoid repetitive trigger-finger actions. Select tools with large switches that can be operated with all four fingers.
- Wear gloves that fit. Tight-fitting gloves can put pressure on the hands, while loose-fitting gloves reduce grip strength and pose other safety hazards.

11.4.2. If your job involves the frequent use of hand-tools and you frequently experience numbing, blanching, pins-and-needles, or dull pain in the hands or forearms, contact your supervisor.

- Blurred vision
- Decrease in manual coordination Drowsiness (even with proper rest) Low back pain Insomnia
- Headaches or upset stomach