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M.O.V.E.
Musculoskeletal Injury Prevention
& Occupational Virtual Education

AGC

Soft Tissue Injury Prevention Tool

Tip Sheets

Trade: Demolition

Job Task: Power Tool Demolition

General Tasks

- Breaking and removing excess concrete from footings, walls and slabs.

Common Tools

- Jack Hammer
- Chipping Hammer/Bush Hammer/Rivet

Potential Risk Factors

Risk Factors can lead to increased risk for Work Related Musculoskeletal Disorders (WMSD's)

Continuous Moderate Forward Back Bending

- Moderate Risk, May be a Higher Risk job if using a chipping hammer at or near ground level or using a jack hammer for extended periods.

Continuous Squatting

- Moderate Risk with frequent and sustained periods of squatting. May be a Higher Risk job if using a chipping hammer at or near ground level for extended periods of time when removing excess concrete on footings, lower wall sections or columns.

Continuous Kneeling with Knee Contact

- Moderate Risk with frequent and sustained periods of kneeling. May be a Higher Risk job if using a chipping hammer at or near ground level for extended periods of time. When removing excess concrete on footings, lower wall sections or columns.

High Hand Grip Force with Awkward Wrist Postures

- Higher Risk when sustained high grip force often including awkward wrist postures when holding chipping hammer.

High Hand/Arm Vibrations and Whole Body Vibrations

- Higher Risk when sustained vibration exposure when operating chipping hammer and jack hammer for extended periods.

Possible Solutions

Awkward Posture Solutions:

- Minimize sustained awkward postures by rotating to other tasks at least every 2 hours.
- Stretch frequently, particularly performing back extension stretches to increase blood flow and reduce muscle tension.

High Grip Force & Vibration Solutions:

- Vibration exposure may be minimized by:
  *task rotation at least every 2 hours;
  *using lighter weight tools to reduce grip force requirements;
  *using low vibratory tools;
  *using anti-vibration gloves or vibration dampening materials limiting the use of heavy vibrating tools to 2-4 hours a day;
  *using pocket hand warmers to increase blood flow and keep the hands warm during cold weather, particularly when using vibrating equipment.

Potential Benefits

- ✓ Increases productivity.
- ✓ Increases blood flow and reduce muscle tension.
- ✓ Reduces strain on hand and arm muscles.
- ✓ Reduces exertion of lower back.

Feasibility

- Engineer Control
  Anti-vibrator Gloves
- Engineer Control
  Knee Pads with Velcro Closure
- Administrative Control
- Work Place Practice

Estimated Cost of Intervention

- $42.00 for Anti-vibrator Gloves
- $19.95 for pair of Knee Pads with Velcro closure