

Cumulative Trauma Disorders — Risk Factors and Controls

FORCE + REPETITION + POSTURE + NO REST = CTD

Risk Factors

- Mechanical stress
- Vibration
- Non-neutral posture
- Tool sizing
- Cold
- Forceful Exertions
- Gloves
- Repetitive motion (*above 1,000 times/shift*)

Controlling Factors

- Alter tools
- Move the part
- Keep cutting edges sharp
- Power with motors
- Use jigs, clamps, etc.
- Cylindrical handles
- Use levers not finger push buttons
- Increase number of different job tasks
- Automate
- Workstation designed as adjustable
- Place tools/materials between shoulder and waist
- Rounded/padded edges to rest elbow/forearm
- Ergonomic adjustable chairs
- Use jigs/fixtures to hold piece Allow rest breaks
- Bend tool not the wrist
- Keep tool weight low
- Tool grip proper size and shape
- Handle length minimum of 4 inches
- Spring loaded pliers and scissors
- Provide large triggers
- Non-porous, non-slip, non-conductive tool handles
- Use power grip when possible
- Protect from heat, cold and vibration
- Rotate jobs
- Require rest breaks
- Exercise programs
- Training
- Medical monitoring