



Your Essential Connection

QuickTips

Developed by AIHA
in support of the OSHA Alliance



For Job Health and Safety on Laboratory Ergonomics

What to do today to protect worker health and prevent health hazards

What is the hazard?

- Cumulative Trauma Disorder (CTD) is also known as repetitive motion disorder. They are not caused by a single event but develop over a period of weeks, months or years.
- Laboratory task that may be of risk include pipetting, lifting, syringe use, dosing animals, and other fine motor tasks.

How do I know there is a hazard?

- Risk factors include repetitive activities, forceful exertions, long task duration, awkward postures, vibration, or pressures to the palm of the hand. Also work in areas where there are extreme changes in temperature such as in cold rooms may also be a contributing factor.

Why should I care?

- Cumulative Trauma Disorders can be painful and debilitating.

What do I need to do?

Tips

- **Maintain a neutral unbent wrist position. Your wrist should not be bent up, down or side to side.**
- **Position your elbows close to your body. Arrange your laboratory bench to reduce the need to reach and twist by locating commonly used items close to you.**
- **Select gloves with a smooth comfortable fit. Too tight restricts circulation; too loose requires extra grip strength.**
- **Use two hands for heavy, large, or awkward equipment – ask for assistance when you need it.**
- **Use both hands when filling multiple syringes. Try to use as many fingers as possible when pulling on the syringe plunger to avoid using a pinch grip.**
- **Reduce grip force requirements by selecting pipettes with compressible rather than hard plastic gripping surfaces.**
- **Keep tips as straight as possible and maintain a neutral wrist position. Automated pipettes eliminate repetitive forceful trigger-finger motions.**
- **Choose a pipette that operates with a finger or thumb side trigger action.**
- **Avoid pounding with the pipette to pick up tips.**
- **Try several types of pipettes and select the one that will provide you with the necessary comfort of use while preserving the operational range.**

When do I need to do it?

When do I need more help?

- Assistance from a medical provider should be sought for early signs and symptoms including tingling/numbness in hands, clumsiness, loss of grip strength, burning sensation in fingers. Report these symptoms early to the company EH&S or medical personnel.
- Assistance and information on ergonomics is needed if you have risk factors in your laboratory.

Where can I get help?

- OSHA Website: www.osha.gov
- AIHA Website: www.aiha.org
- NIH Websites: <http://odp.od.nih.gov> and <http://www.niehs.nih.gov>
- CDC Website: <http://www.cdc.gov>

Look for additional information on this topic at www.aiha.org.