





# Soft Tissue Injury Prevention Tool

**Tip Sheets** Trade: Healthcare

Job Task: Laboratory Hoods and Biological Safety Cabinets

#### **General Tasks**

Hand work for research

#### **Potential Risk Factors**

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

## Placement of Lower Body

Laboratory work benches are often fixed height and without proper clearance to allow for the lower body and legs to be full under the work bench. This leads to increased stress and tension on the upper and lower back due to forward leaning postures. Increased stress and increased reach requirements to be able to access the work bench area is created when there is not sufficient room for the lower body to get closer to the work.

## Placement of Equipment on Bench

When the work bench is one size fits all it
makes it difficult to be able to arrange work
equipment or computer equipment to be in
the proper positions for those working there.
This leads to increased issues of repetitive
stress on the arms, hands and wrists while
doing this work.

## **Common Tools**

Various lab hand tools, vials, dishes, pipettes

## **Possible Solutions**

# **Body Placement Solutions:**

 Provide for height adjustable laboratory desk that allows those working at this bench to adjust the height of the bench to the proper working height based on a person's stature.

# Placement of Equipment on Bench:

 Equipment and height of the bench should be adjusted to the person's working at the station. As shifts change and new workers come on shift bench top height can be adjusted for the new workers.

#### **Potential Benefits**

- ✓ Reduces reach requirements that can lead to strain or sprain related incidence
- Reduces exertion and forward leaning of lower back.
- ✓ Allows for relaxed neutral wrist and arm postures
- ✓ Allows for relaxed neck, shoulder and upper back postures





# Feasibility

- Engineer Control
- Work Practice Control
- Administrative Control

#### **Estimated Cost of Intervention**

- \$500-\$2000 for height adjustable leg levelers
- Biological Safety Cabinets price varies by manufacturer but are readily available

http://www.nuaire.com/products/motorized-adjustable-with-leg-levelers.html

http://www.nuaire.com/products/biological-safety-cabinets/class-i/labgard-es-energy-saver-nu-813-bench-top-class-i-biological-safety-containment-cabinet.html