



## Soft Tissue Injury Prevention Tool

### Tip Sheets

Trade:           Healthcare  
Job Task:       Microscope Work

<p><b>General Tasks</b></p> <ul style="list-style-type: none"> <li>➤ Microscopy while working at laboratory bench</li> </ul>	<p><b>Common Tools</b></p> <ul style="list-style-type: none"> <li>➤ Microscopes</li> </ul>
<p><b>Potential Risk Factors</b></p> <p><i>Risk Factors can lead to increased risk for Work Related Musculoskeletal Disorders (WMSD's)</i></p> <p><b>Placement of Microscope</b></p> <ul style="list-style-type: none"> <li>• Microscope placement and height can greatly affect the arms, neck, shoulders, upper and lower back, wrists and elbows causing static positions and leading to increased reaching and awkward postures</li> </ul> <p><b>Placement of Lower Body</b></p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p><b>Placement of Equipment on Bench</b></p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>	<p><b>Possible Solutions</b></p> <p><b>Awkward Positions:</b></p> <ul style="list-style-type: none"> <li>• Using both an adjustable height laboratory workbench and an adjusting microscope as feasible will greatly reduce the reaching and awkward height postures when doing microscopy work. This will allow for relaxed neutral postures when doing sitting or standing work</li> </ul> <p><b>Placement of Equipment on Bench:</b></p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p><b>Potential Benefits</b></p> <ul style="list-style-type: none"> <li>✓ Reduces reach requirements that can lead to strain or sprain related incidence</li> <li>✓ Reduces exertion and forward leaning of lower back.</li> <li>✓ Allows for relaxed neutral wrist and arm postures</li> <li>✓ Allows for relaxed neck, shoulder and upper back postures</li> </ul>
	

## **Feasibility**

- Engineer Control
- Work Practice Control
- Administrative Control

## **Estimated Cost of Intervention**

- \$1000-\$3000 for height adjustable laboratory desk
- Cost of microscope varies depending on what type of work needs to be done.

[http://symbiote1.tru-m.com/docs/symbiote\\_tables.pdf](http://symbiote1.tru-m.com/docs/symbiote_tables.pdf)