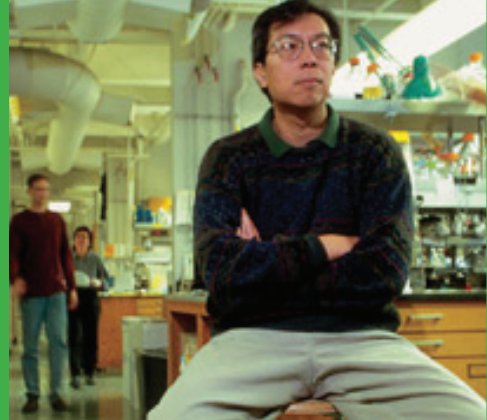






# GUIDE FOR LABORATORY ERGONOMICS

TASK	BODY POSITIONS/POSTURES	WORK PRACTICES/PROCESSES	PROPER EQUIPMENT
 <p>SITTING</p>	<ul style="list-style-type: none"> <li>• Feet flat on the floor or a footrest in front of the chair</li> <li>• Chair with lower back and thigh support</li> <li>• Front edge of chair should not press up against back of knees</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid sitting at the edge of the seat.</li> <li>• Stand up and stretch every 30 mins</li> <li>• Ensure proper chair adjustment before sitting</li> </ul>	<ul style="list-style-type: none"> <li>• Footrest in front of chair if feet do not reach the floor</li> <li>• Back support cushion or rolled up towel if existing back support is not adequate.</li> <li>• Remove/adjust armrests if they hinder work activities</li> </ul>
 <p>PIPPETING</p>	<ul style="list-style-type: none"> <li>• Maintain straight wrists</li> <li>• Keep elbows close to body</li> </ul>	<ul style="list-style-type: none"> <li>• Keep tools and containers as close as possible</li> <li>• Share workload between right and left hands</li> <li>• Rotate pipetting tasks with others</li> </ul>	<ul style="list-style-type: none"> <li>• Use shorter pipettors and pipette tips.</li> <li>• Choose pipettors that require minimal hand and finger effort</li> <li>• Automated processes or multi-channel pipettors are recommended for highly repetitive jobs</li> </ul>
 <p>TEST TUBE HANDLING</p>	<ul style="list-style-type: none"> <li>• Keep wrists straight</li> <li>• Work with elbows close to body</li> <li>• Avoid reaching upward or stooping low</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange tubes to minimize reaching/twisting</li> <li>• Share workload between right and left hands</li> <li>• Take periodic breaks</li> <li>• Use both hands to open tubes</li> </ul>	<ul style="list-style-type: none"> <li>• Use upside-down containers to raise tube racks when needed</li> <li>• Use mixer rack instead of holding tubes by hand</li> <li>• Use cap removers to help minimize pinch gripping</li> <li>• Pad edges or use a cushion to pad forearms</li> </ul>
 <p>MICROSCOPE USE</p>	<ul style="list-style-type: none"> <li>• Maintain straight wrists</li> <li>• Avoid tilted head/neck postures</li> </ul>	<ul style="list-style-type: none"> <li>• Take frequent breaks to rest eyes following the "20 rule" - every 20 mins look at least 20 feet away for 20 secs</li> <li>• Keep scopes clean and in good condition.</li> </ul>	<ul style="list-style-type: none"> <li>• Raise microscope and position it at the edge of the counter to allow a more upright head/neck posture</li> <li>• Pad edges to reduce contact stress between forearms and hard surfaces</li> <li>• Follow correct sitting posture (above)</li> </ul>
 <p>HAND TOOL USE</p>	<ul style="list-style-type: none"> <li>• Maintain straight wrists</li> <li>• Avoid tools that require pinch grips when possible (consider automated equivalents)</li> </ul>	<ul style="list-style-type: none"> <li>• Take occasional breaks away from tool use (every 20-30 mins)</li> <li>• Share workload between right and left hands</li> </ul>	<ul style="list-style-type: none"> <li>• Use the correct tool for each task</li> <li>• Ensure tools are in proper working order</li> <li>• When possible, select tools with larger handles to minimize gripping effort</li> </ul>