Microscope Ergonomics

Microscope usage that is not at the correct height and angle requires a hunched position and contact pressure from the work surface on the forearms. As a result, strains in the neck, forearms and eyes are common in prolonged microscope usage.

Workstation Setup

1. Remove false fronts and supplies from under the bench to ensure adequate leg room
2. Set the chair or table height so that your shoulders can be relaxed close to your side, eyes aligned with the microscope eyepiece, chin tucked back and not lifted, and forearms supported on cushions
3. Adjust the eye piece to avoid a forward head position. Consider extended eye tubes and eyepiece angle adjustments
4. Use a chair that provides good back and thigh support. Sit with your back against the back rest and your feet supported on the chair ring or footrest.
Healthy Habits

1. Avoid leaning on hard edges- use pads or supports
2. Avoid long uninterrupted periods of microscope work by rotating tasks or taking breaks
3. Close your eyes and focus on different distances every 15 minutes to reduce eye strain
4. Spread microscope work throughout the day and between several people, if possible.
5. Take breaks. Every 15 minutes, close your eyes or focus on something in the distance. Every 30-60 minutes, get up to stretch and move.
6. Don't use a microscope for more than 5 hours per day. Spread the use out over the entire work day, avoiding long uninterrupted periods of microscope work.

Microscope Viewing Posture

1. Elevate, tilt or move the microscope closer to the edge of the counter to avoid bending your neck
2. Keep elbows close to your sides
3. Use lifters and angled microscope arm supports to relieve fatigue and strain
4. Adjust eye pieces and angle of observation to prevent neck strain
Microscope Tips

1. Avoid jutting your chin forward or bending your neck down when using the microscope. Adjust the height of your microscope, workbench or chair as needed to avoid bending or tilting your neck.

2. If your microscope is too low causing you to bend your head downward to look into the viewing tube, elevate the tabletop if possible. If your work surface is not adjustable, try placing books or binders under the microscope to elevate it. Raise your microscope to position yourself so that you are in as upright a posture as possible to reduce tilting your head and rounding your shoulders.

3. If your microscope is too high causing you to raise your head when using it, elevate your chair and use a chair ring or footrest for leg support.

4. Provide sit-stand seats for areas where there is restricted leg room. Try pulling the microscope toward the edge of the work surface to position the operator in a more upright posture.

5. If possible, try elevating the microscope or placing it at an angle so you can look directly into the eyepiece. This can help position the operator in a more upright posture and reduce rounding of the shoulders and neck.

6. Use adjustable eye pieces or mount your microscope on a 30° angle stand for easier viewing.

7. Avoid leaning on hard edges or use a pad to cushion the edges.

8. Provide sloping arm rests to support the operator's forearms while using adjustment knobs.

9. Use adjustable eye-pieces or mount your microscope on an easier viewing.
10. Use television systems where possible to eliminate the use of binocular eye pieces.

11. Use arm supports to provide support for your forearms while using adjustment knobs. A variety of supports are available from the following vendors:

**Contact**

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**More information**

**External links**

1. [Ergo Source] [2]
2. [AliMed] [3]
3. [Air Technologies] [4]

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