Alternate Postures Frequently
Changing postures frequently throughout the day is one of the most effective ways to reduce static (holding the body in one position) loading. This can mean making adjustments to your chair or workstation (if you have this option), or organizing your workday so that standing and walking are part of your routine. When organizing your day, make sure tasks that require standing or walking are performed throughout the day rather than just at the beginning or the end of your workday or shift.

Neutral Seated Posture
When making adjustments to your chair and workstation, try to set up your work area to allow you to maintain a neutral posture:

- Feet/heels should be supported on the floor or a footrest
- Knees slightly below the hips
- Backrest reclined slightly

Elbows at sides
Wrist straight

Shoulders relaxed

Lower back supported

Poor Seated Posture
Avoid a "hunched over" posture in which you're leaning forward and not using the backrest. This posture increases loading on your lower back. Place items you use most frequently within arm's reach to reduce bending forward while seated to access these items. If reaching for heavy manuals or books from shelves, stand up and slide the materials to the edge of the shelf before lifting.

Monitor Location
Position the monitor so the top of the screen is at eye level. If you wear bifocal or progressive lenses and use the bottom portion of the lens, lower the monitor one to two inches below eye level. The monitor should be at least 18 inches away from the eyes. The farther away the monitor can be placed without having difficulty reading text, the less eyestrain you will have. Tilt the monitor 10 degrees from the vertical for easy reading. Take eye breaks every 30 minutes by refocusing on a distant object for 10 seconds.

Top of screen at
eye level

Monitor tilt = 10° from vertical

Screen at least 18 inches away
Office Ergonomics Workstation Tips

**Keyboard Height and Tilt**

Your keyboard should be placed so that your shoulders are relaxed and your elbows are at approximately a 90° to 110° angle. Your keyboard should either be flat or tilted so the front of the keyboard is sloped downward (also called negative tilt). This allows for the 90° to 110° elbow angle, and a straight line through the wrist. The straight or neutral wrist position reduces strain on tendons and pressure in the wrist carpal tunnel.

![Straight wrist position](image)

**Mouse Settings**

Proper adjustments in the mouse software settings can reduce repetition, increase mouse responsiveness, and reduce clicks. To make changes to the settings, do the following:

1. Click on the Windows Start button. Go to the Control Panel and click.

2. In the Control Panel, click on the Mouse (Windows 95, 2000, ME users) or Printers or Other Hardware icon (Windows XP users).

3. Click on the Motion tab (Windows 95, 2000, ME) or Mouse, then Pointer Options Tab (Windows XP) and adjust the speed by moving the slider bar to at least ¾ speed. This will make the pointer much more responsive and reduce repetitive motion.

4. On the same tab look for the "Snap to Default" feature. Check the box. This will automatically move the pointer to the default dialog box each time. This eliminates the need to move the mouse pointer.

5. Click on the Buttons tab. Look for the "Double Click Speed" section. Adjust the speed by moving the slider to the "Slow" setting. By slowing down the speed, you will not have to double click as fast to open applications, e-mails, etc.

6. Another option you may have under the Buttons tab is the option to enable single clicks to open documents. By enabling this feature, you can use a single click rather than double click to open an application or email. This can significantly reduce the amount of clicks over the course of a day.

**Lighting and Visual Strain**

Proper location of your monitor is important in reducing direct and reflected glare from sunlight and overhead lights. Placing the monitor at a right angle to outside windows will significantly reduce direct and indirect reflected glare from sunlight. Using vertical blinds to direct sunlight also helps. Placing your monitor between overhead strip lighting also reduces glare from fluorescent lights. Changing the monitor background colors to white or light gray can significantly reduce reflected glare, too.

![Parabolic lenses in overhead light fixtures](image)

![Suspended, indirect light is more uniform, creates less glare](image)

![Indirect lighting reflected off matte-finish wall](image)

![Vertical blinds in windows to direct incoming sunlight](image)

**Questions?** Contact your safety consultant at 303-361-4000 or 1-800-873-7242.
Office Ergonomics Workstation Setup
Tips on Neutral Seated Posture

- Top of the screen at eye level; screen at least 18 inches away.
- Shoulders relaxed.
- Trunk angle slightly reclined.
- Lumbar support adjusted to the beltline.
- Heels touching the floor (if not, use a footrest).
- Document holder at approximately the same height and distance from the user as the monitor.
- Elbow angle 90° to 110°.
- Keyboard at or below elbow height with a flat or downward slope.
- Armrests used to support the forearm, not the elbow.
- Knees below the hips.
- Two to 3 inches of space between the knees and the seat.

Frequently used items such as the telephone or reference materials 16 to 18 inches in front of the body.

PINNACOL ASSURANCE
### Adjusting Your Chair to Fit Your Body

<table>
<thead>
<tr>
<th>1. Seat adjustment</th>
<th>2. Seat pan forward/backward adjustment</th>
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<tbody>
<tr>
<td>Adjust the seat height so it’s low enough that your feet touch the floor but high enough that your knees are below your hips.</td>
<td>This adjustment will slide the seat forward and backward. The seat pan should provide enough support for the hips and thighs so that there is only 2-3 inches of space between the front edge of the seat and the calf.</td>
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<tr>
<td>The angle of the seat will tilt forward or flat. A slight tilt will open up the hip angle and increase the natural low back curve, which decreases loading on the low back. A flat seat pan is also acceptable.</td>
<td>The backrest should be tilted slightly back so the angle of the trunk is five to 15 degrees from vertical. There may also be a lever that allows the backrest and seat to rock back and forth. This &quot;rocking chair&quot; mechanism can be used occasionally to take some of the loading off the low back.</td>
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<th>5. Backrest tension</th>
<th>6. Lumbar support</th>
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<td>This is usually a round knob on the underside of the seat that will increase the tension in the backrest. If there’s a lot of play in the backrest when you lean back, the tension knob should be tightened.</td>
<td>Sometimes called the lumbar roll, this is the lower part of the backrest that curves outward your low back. If your chair has a flat back, you might want to place a small pillow or rolled-up towel in the area of your chair making contact the small of your back.</td>
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<th>7. Lumbar support height</th>
<th>3. Armrests</th>
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<td>Backrest height should be adjusted so that lumbar support is at the belt line. A tall backrest that provides support for the upper back is beneficial since all larger arm movements (such as answering the phone, sorting documents, etc.) start with the shoulder blade.</td>
<td>If armrests are available, well padded (such as gel inserts), and adjustable vertically and laterally so they support the middle of the forearm (not the elbow), use them for support when typing or using the mouse, or between keystrokes.</td>
</tr>
</tbody>
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