

Ergonomics of Sitting: What Matters Most?

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Postural Support

Intensive computer users need more support because they have fewer opportunities for movement:

- Intensive computer users need upper back support and recline
- Women particularly want seating that allows them to work upright
- Heavy users benefit from higher and deeper lumbar supports and armrests that are farther forward
- Bifocal users benefit from high back support and neck support
- Small users need arm width and seat depth adjustment
- People with Carpal Tunnel Syndrome need controls that are large, require little gripping, twisting, or pinch forces, with no sharp edges; and many are better off with the controls on the left side

Bear in mind that most soft tissue disorders (such as Carpal Tunnel Syndrome) are on the right side and most lumbar supports don't adjust high enough for a large part of the population.

Promote Movement

The most important adjustment of the chair is often the backrest tension control (while in "free-float" mode), yet most users automatically lock their chair instead.

Promote Neutral Postures

Although forward seat pan slopes aim to promote neutral postures, people don't like to sit in this way because of the static muscle work. Further, research studies have been unable to demonstrate consistent improvements in lumbar curves beyond a few degrees forward tilt.

Encourage Use of Existing Seat Adjustments

It is essential that seat adjustment features be easy to recognize, understand, and use because most users do not adjust their chair or adjust it incorrectly. Most users do not consistently adjust their furniture. Research indicates that many users have never adjusted their chair.

Design guidelines for ease of adjustment (Lueder, 1983, 1995):

- a. Features adjust from the standard seated work position
- b. Controls are easy to identify; functions are self-evident
- c. Adjustment results in immediate feedback on the setting
- d. Adjustment is logical, consistent, and follows user stereotypes
- e. A minimum of motions is required, with little effort