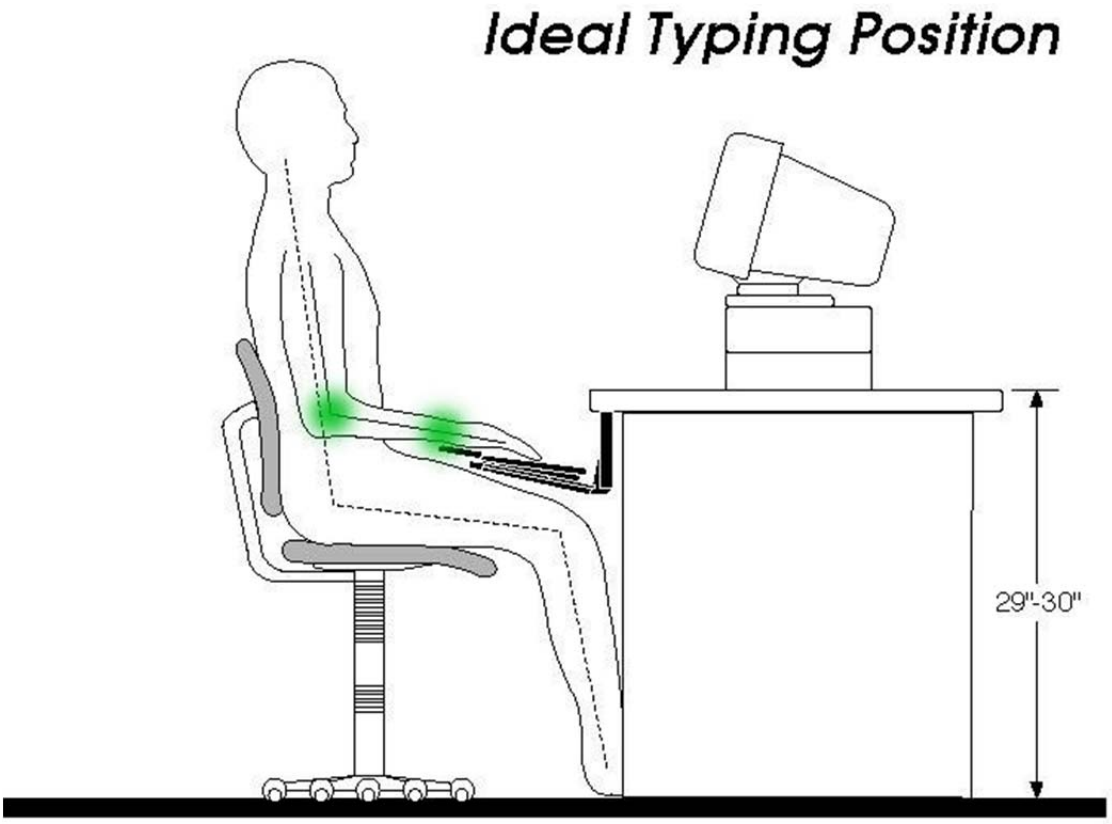
Ideal Typing Posture

Negative slope keyboard support

In the ideal typing posture both static and dynamic muscle loads are minimized. This posture is achieved when the keyboard is below seated elbow height and the base is gently sloped away from the user so that the key tops are accessible to the hands in a neutral posture. In this position the arms, shoulders, neck and back can relax, especially during brief rest pauses. Also, in this slightly reclined sitting position the low back rests against the lumbar support of the chair, the elbow is opened to promote circulation to the lower arm and hand, the abdominal angle, and the popliteal angle (behind the knees) are open to promote blood circulation. The feet rest firmly upon the floor.



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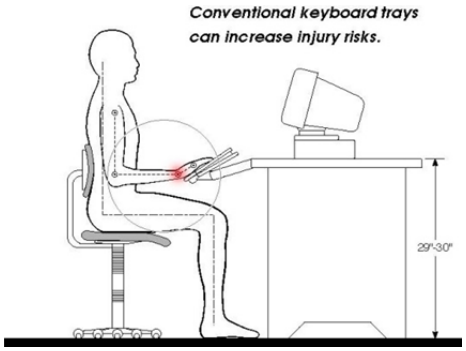
Problem Typing Posture

Typical desk top typing posture that increases muscle fatigue and injury risks.

Desktop keyboard

Typing at a keyboard on a desk is a common work posture for many computer users. In this position it is difficult to maintain the wrist is in a neutral posture, because the forearms sag as they tire and this puts the wrists into greater wrist extension. Also, most users have to work with their elbows flexed, which can compress the median and ulnar nerves at the elbow and restrict blood flow to the hands. Working with the forearms sloping up increase muscle loads in the upper arms, shoulders and neck. Working in this position for more than 3-4 hours invariably leads to muscle fatigue.



Conventional keyboard trays can increase injury risks.

Conventional keyboard tray

Typing at a keyboard on a conventional articulating keyboard tray can increase postural problems for users. Working with the keyboard more steeply angled on the tray is a common work posture for many computer users. In this position it is also difficult to maintain the wrist is in a neutral posture, because the forearms sag as they tire and this puts the wrists into greater wrist extension. Studies have failed to show that conventional keyboard trays substantially improve wrist posture.

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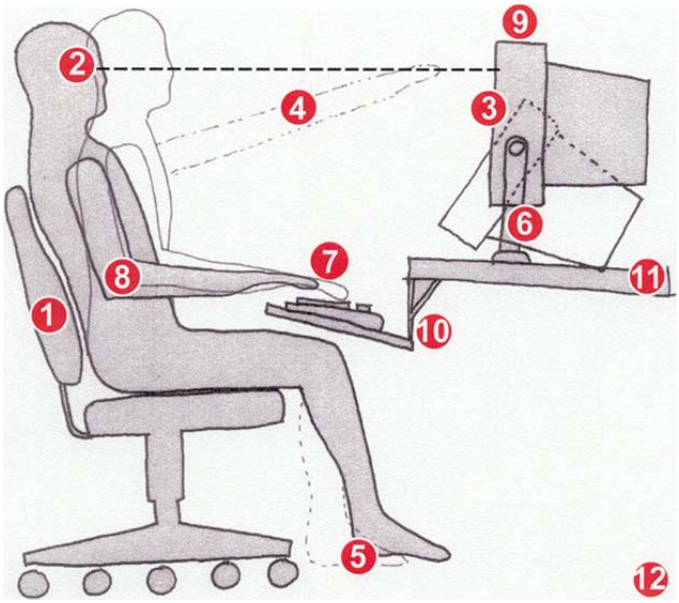
12 Tips for an Ergonomic Computer Workstation



1. use a good chair with a dynamic chair back and sit back in this
2. top of monitor casing 2-3" (5-8 cm) above eye level
3. no glare on screen, use an optical glass anti-glare filter where needed
4. sit at arms length from monitor
5. feet on floor or stable footrest
6. use a document holder, preferably in-line with the computer screen
7. wrists flat and straight in relation to forearms to use keyboard/mouse/input device
8. arms and elbows relaxed close to body
9. center monitor and keyboard in front of you
10. use a negative tilt keyboard tray with an upper mouse platform or downward tiltable platform adjacent to keyboard
11. use a stable work surface and stable (no bounce) keyboard tray
12. take frequent short breaks (microbreaks)

Information on this page was compiled by the DEA651 class of 2000 - Bethany Johnson; Emily Kuperstein; Mari Mitchell; Heidi Tinnes; with Garrick Goh (TA) and Professor Alan Hedge - (http://ergo.human.cornell.edu/dea651/dea6512k/ergo12tips.html)