

Hand and Wrist - Hold on Tight (but not too tight)

Posted in: Hand and Wrist Ergonomics

What factors increase the risk of hand strain or injury?

- Muscles work best when the joints that they cross are in 'neutral' position. Neutral wrist posture is a straight line from your forearm to your hand.
- Why is this important? Working with the wrist bent increases stress on the tendons as they go through the wrist and can increase pressure in the carpal tunnel.

☞ If these tendons have to bend around a corner (if your wrist is bent) or are pressed against a hard edge they can get inflamed (think of a rock climbing rope rubbing back and forth over a rock and getting hot and frayed). Over time the combination of awkward wrist posture and repetitive movements can lead to injuries anywhere from the elbow to the hand.

• Another factor in wrist problems is that the wrist muscles aren't as strong when they are bent.

☞ For example, working with your wrist bent impacts how strong your grip is. If your wrist is fully bent (palm toward forearm), your grip strength can be reduced by over 50% (this is actually a knife disarming technique in certain martial arts).

☞ Because the muscles are less efficient, awkward postures make you squeeze harder, and since you are squeezing harder, the muscles don't have as much endurance and fatigue faster. Awkward wrist posture leads to you having to work harder!

- This can be reduced even more if you are wearing gloves. Did you know that using gloves can decrease your grip strength by up to 40%?
- All of these factors are reasons to take a close look at your work and work area. Do your wrists and hands give it a thumbs up or thumbs down?



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