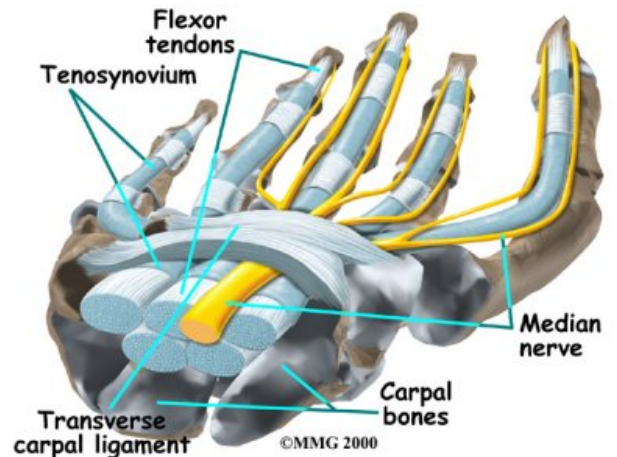


Ergonomic Focus: Hands and Wrists

Understanding the Wrist

Imagine a tunnel. You have one in your wrist, bound by the carpal bones and the transverse carpal ligament. Your wrist tunnel is called the carpal tunnel, and it is the home to some tendons, which connect your fingers to the muscles in your forearm. Also passing through the carpal tunnel is the median nerve, which controls feeling in your fingers. When your wrist is straight, both the tendons and median nerve can fit comfortably in the carpal tunnel.



The Science Behind Carpal Tunnel Syndrome

When you use your hands with a bent wrist, the median nerve becomes unnaturally squished or stretched. Over time, this can cause swelling, which in turn will cause pain. This pain is a signal, telling you to stop using your wrist at that angle. After pain comes numbness, which occurs because your nerve has temporarily stopped responding. With prolonged numbness, the median nerve will reduce its capacity to carry signal, which is the definition of carpal tunnel syndrome.

Eliminating The Wash Rag Motions

Put your hands in the air, and pretend to wring dry a wet wash rag.

These motions are the wrist and hand risk factors for both Tendonitis and Carpal Tunnel Syndrome. To practice good ergonomics, we must eliminate the wash rag motions in the workplace.

Additionally, excessive vibration and cold can exacerbate these risk factors.



To eliminate wash rag motions, we have only two choices: change the *tool*, or change the *target*. Changing the tool can involve a non-traditionally built piece of equipment, and changing the target can be as simple as shifting the angle of the workstation.