

Carpal Tunnel Syndrome



Many muscles of the hand and fingers are supplied by the median nerve.

This large nerve travels into the hand under a band of fibrous tissue, through a narrow opening called the "carpal tunnel".

When this nerve becomes inflamed and swollen or when the opening of the carpal tunnel becomes narrowed, the median nerve is compressed.

This results in pain, burning and tingling in the palm of the hand – over the thumb and portions of the first, second and third fingers.

Several factors can contribute to Carpal Tunnel Syndrome, by reducing the size of the carpal tunnel and entrapping the median nerve. These may include other medical conditions such as:

- Diabetes
- Pregnancy
- Arthritis
- Thyroid disorder
- Menopause

As well, it is recognized that repetitive use of the wrist and hands can give rise to increased pressure within the carpal tunnel –including job tasks that require a combination of repetitive, forceful, and awkward or stressed motions of the hands and wrists. However, this condition may also occur in conjunction with sedentary work - even operating a computer.

Because Carpal Tunnel Syndrome commonly arises in a work setting, The Workplace Safety and Insurance Board recognizes the important role of physiotherapy in assessing and treating this injury.

Evidence-based physiotherapy interventions supported by the WSIB include:

- Ultrasound
- Splinting
- Manipulation
- Mobilization

References:

- Muller M et al. Effectiveness of hand therapy interventions in primary management of carpal tunnel syndrome: A systematic review. J Hand Ther. 2004; 17:243-266
Williams et al. Effectiveness of workplace rehabilitation interventions in the treatment of work-related upper extremity disorders: A systematic review. J Hand Ther. 2004;17:267-273

Physiotherapy is covered by most extended health plans, and the WSIB.

**For more information about Carpal Tunnel Syndrome, please contact
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