

Guyon's Canal Syndrome

Guyon's canal syndrome, often referred to as handlebar palsy, is often attributed to an entrapment of the ulnar nerve within the Guyon canal when passing through the wrist. Symptoms tend to begin with feelings of pins and needles in the little finger and the ring finger before it progresses to a loss of feeling and impaired motor functions for the intrinsic muscles within the hand that are innervated by the ulnar nerve. The syndrome is often seen in individuals who cycle regularly due to the prolonged pressure of the canal against the handlebars of the bicycle.

Guyon's Canal Syndrome Anatomy

Guyon's canal syndrome is a common form of nerve compression that affects the ulnar nerve as it passes through Guyon's canal in the wrist. The ulnar nerve starts along the side of the neck, traveling behind the elbow and ends in the hand at the ring and little fingers. In the wrist, the nerve and artery run through the canal. Two bones form the canal, the hamate and pisiform and the ligament connecting them. After it passes through the canal, the nerve branches out to bring feeling to the little finger and a portion of the ring finger.

Branches of the nerve supply the muscles within the hand. This condition is a lot less common than carpal tunnel syndrome (CTS), but it can be present at the same time as CTS. Since the ulnar nerve supplies feeling to the little finger and half of the ring finger, and if these fingers are involved with feelings of numbness, compression on the nerve might be present. It's critical that the compressed area be localized to the elbow or the wrist by a physical exam and study before beginning a treatment regime.

How to Treat Guyon's Canal Syndrome:

1. Therapy

Regardless of whether you go through physical therapy, massage therapy, acupuncture, osteopathic care or chiropractic care, these therapies are all common starts to treatment programs because they work alongside the areas that are affected, such as the skeleton, fascia and the muscles. All of the aforementioned treatment programs are cost-effective and they rarely have any negative side effects. If they don't provide you with the results desired, doctors might recommend working with a surgeon.

2. Bike Set-up

There are lots of things to consider. Height of the saddle, position of the handlebar, width and cushioning of the handlebars, and body position. Seeking advice from a cycling coach is important.

3. Cycling Problems

Firstly, reduce the length of time you are cycling for. Long periods cycling tend to exacerbate this problem. Secondly, use the cow horns or vertical handlebars as much as possible. This grip position will orientate your wrist better and reduce the onset of nerve symptoms. Third, try to stick to smooth roads. Very bumpy roads cause a lot of juddering through the handlebars and this force goes into the wrists. Fourth, make sure your handlebars have appropriate cushioning to absorb some of the force.

4. Surgery

One of the most radical forms of treatment is surgery to help relieve the tension in the ligament forming the canal, which in turn, reduces the compression felt on the ulnar nerve. Use it as a last case scenario.

Tips:

- Avoid overusing the wrist or placing undue pressure on the palm.
- Ganglion cysts tend to be the most common cause in terms of non-traumatic Guyon's Canal Syndrome.
- Take regular breaks or minimize the amount of time you take to perform tasks requiring flexing and turning of the wrist.
- Wrist splints can be worn in the evening to reduce feelings of pins and needles.
- If you work as a keyboard operator, a wrist rest can help to minimize symptoms.