

GUYON'S TUNNEL SYNDROME (Cyclist's Palsy)



■ ■ ■ Description

Guyon's tunnel syndrome is a nerve disorder in the wrist that causes pain, hand weakness, and loss of feeling, often in the little finger and part of the ring finger. It is caused by compression of the ulnar nerve and the blood vessels at the wrist. Athletic performance in sports that require fine hand function or gripping may be greatly decreased by this condition.

■ ■ ■ Common Signs and Symptoms

- Tingling, numbness, or burning in part of the hand or fingers (particularly little finger and part of the ring finger, on the border side of the little finger); may awaken you at night
- Sharp pains that may shoot from the wrist up the arm
- Clumsiness and weakness of the hand
- Shiny, dry skin on the hand
- Reduced performance in any sport requiring repetitive gripping and fine dexterity

■ ■ ■ Causes

- Pressure on the ulnar nerve at the wrist from many different sources, including external pressure, such as from handlebars during long-distance cycling; tumors; cysts; fractures of the hand that did not heal; aneurysm (ballooning) of the ulnar artery; scarring or shortening of the ligament that covers the ulnar nerve; or fracture, sprain, or dislocation of the forearm or wrist

■ ■ ■ Risk Increases With

- Diabetes mellitus
- Hypothyroidism (underactive thyroid gland)
- Menopause
- Raynaud's disease
- Long-distance cycling
- Sports that may cause fracture of the hamate bone in the hand (baseball batting, golf, tennis, badminton)
- Rheumatoid arthritis
- Gout
- Ganglion cyst
- Carpal tunnel syndrome
- Repetitive jolting or shaking of the hands or wrist

■ ■ ■ Preventive Measures

- Use padded gloves or handlebars when cycling.
- Periodically change the positions of your wrists if your activity requires prolonged hyperextension of the wrist (cycling, weightlifting) or results in repetitive jolting or shaking of the hands or wrist.
- Use proper technique when batting, golfing, or playing tennis to prevent hamate fractures.

■ ■ ■ Expected Outcome

This condition is usually curable, either with appropriate treatment or spontaneously. Occasionally surgery is necessary, especially if muscle wasting or nerve changes have developed.

■ ■ ■ Possible Complications

- Permanent numbness of the little and ring fingers in the affected hand
- Permanent paralysis, weakness, and clumsiness of hand and finger muscles

■ ■ ■ General Treatment Considerations

Initial treatment consists of rest from the offending activity and medications to help reduce inflammation. Activity modification, including technique changes and varying the position of the wrist frequently, are also tried. For cyclists, adjusting the handlebars, wearing padded gloves, and padding the handlebars are helpful. A wrist splint or immobilization with a cast or splint may also be recommended. A referral to a physical therapist or athletic trainer for further evaluation and treatment may also be helpful. Occasionally a cortisone injection may be given to reduce inflammation.

Surgery is performed to free the pinched nerve when conservative treatment fails. Surgery, which is performed as an outpatient basis (you go home the same day) provides almost

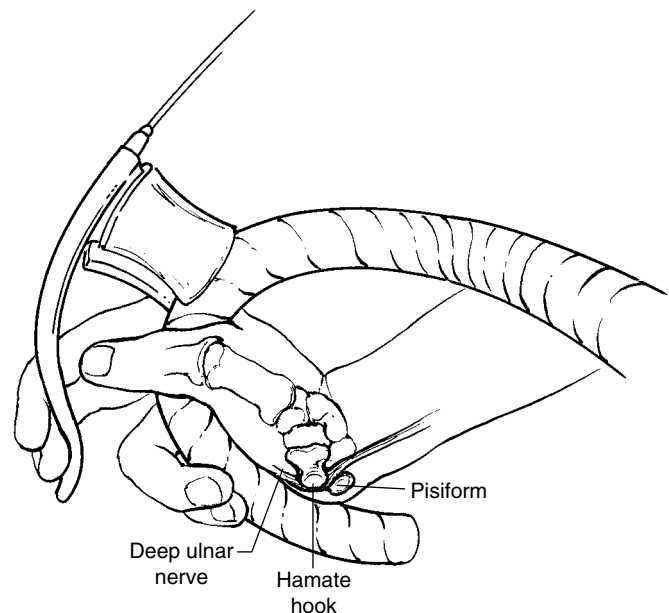


Figure 1

From Jobe FW: Operative Techniques in Upper Extremity Sports Injuries. St. Louis, Mosby Year Book, 1996, p. 639.

complete relief of all symptoms in 95% of patients. Allow at least 2 weeks for healing.

■ ■ ■ Medication

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), are often recommended to reduce inflammation. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur. Other minor pain relievers, such as acetaminophen, may also be used. Topical ointments may be of benefit.
- Pain relievers may be prescribed as necessary. Use only as directed and only as much as you need. These are usually only prescribed for pain relief after surgery.
- Injections of corticosteroids may be recommended to reduce inflammation.

■ ■ ■ Heat and Cold

- Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

■ ■ ■ Notify Our Office If

- Symptoms worsen or do not improve despite 2 weeks of treatment
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)

Notes:

(Up to 4400 characters only)

Notes and suggestions