Injury Law Center®

Note: This information is provided to give you a basic understanding of the injury. It is not intended as medical advice. You should consult a qualified medical provider.

ELBOW, WRIST & HAND INJURIES

Elbow Injuries

Description

There are three bones that make up the moving surfaces of the elbow joint. The humerus extends from the shoulder to the elbow and the ulna and radius bones extend from the elbow to the wrist. There are two main referral nerves that run through or innervate the elbow; the ulnar nerve and the radial nerve.

Both the bones of the elbow and the nerves of the elbow can be traumatically damaged.

Mechanisms of Injury

A blow to the elbow, or repeated pressure, such as leaning on the elbow, can damage the ulnar nerve. Repeated trauma such as vibratory compression, as in the use of pneumatic drills, etc. can cause injury to the ulnar nerve. When the ulnar nerve is injured, there is usually numbness and decreased sensation and muscle wasting in the little finger, ring finger, and that portion of the palm of the hand that lies below that. An injury to the armpit can cause injury to the radial nerve. A compression injury to the humerus, the bone of the upper arm, can result in radial nerve damage causing sensory loss and paralysis of all of the muscles below the point of compression.

Diagnosis

A clinical examination by a neurologist will often be followed by an EMG (electromyography) and NCV (Nerve Conduction Velocity) tests to determine nerve damage.

Fractures

The bones in the elbow can be fractured. Depending upon the severity of the fracture, surgical intervention may or may not be required.

Wrist/Hand Injuries

Description
The wrist is comprised of a group of bones arranged in two rows of four bones each, connected by strong ligaments and tendons. The wrist bones articulate, that is, move in conjunction with the ulna and radius bones of the forearm.

The bone structure of the hand is very complicated. The metacarpals are the longest bones of the hand and run from the wrist to the phalanges of the finger bones. The finger bones are called the phalanges.

Mechanisms of Injury
The wrist can be injured when a force is applied to an outstretched hand, as when one falls backwards extending a hand out. This can fracture the ulna and radius bones. Often times this type of fracture called a Colles fracture will be comminuted, that is, the bones will be in fragments. The wrist can also be injured in a car crash when one extends a hand out onto either the dashboard and/or the seat. This type of trauma can also cause fractures in the small bones of the wrist.

Diagnosis
A fracture of the ulna and radius bones can usually be seen on x-ray. However x-ray diagnosis of fractures and dislocations of the wrist bones is very difficult. Often times these fractures are missed completely when diagnosed very late.

Neurological complications can arise from a wrist injury. The ulnar and median nerves may be compressed by swelling and bleeding. Compression of the elbow nerve can lead to paralysis.

Medical Help
Fractures of the bones are often reduced either externally or with internal fixation. After being immobilized for 6 to 8 weeks, physical therapy is ordered. Practical Advice-If you have suffered a fracture it is imperative that you perform all of your physical therapy, both in physical therapy visits and in home exercises. There is a small window of opportunity to regain as much range of motion in the joint (ROM) as possible.

Carpel Tunnel Syndrome

Description
Carpal tunnel syndrome is a nerve disorder caused by compression at the wrist of the median nerve, which supplies the hand, and often causes numbness and tingling into the hand. The carpal tunnel is in the area in the middle of the wrist where the bones and ligaments create a very small passageway for the median nerve to innervate.

Causes and Symptoms
Compression of the median nerve can be caused by swelling in the wrist area, trauma to the wrist including fractures to the bones and dislocations, as well as other conditions such as diabetes, obesity, thyroid conditions etc. Activities which cause an individual to repeatedly move the wrist inward toward the forearm, called repetitive motion, can result in carpal tunnel syndrome.

Medical Help
A doctor will do a physical examination on the patients suspected of having carpal tunnels syndrome, and it may test the patient with electromyography (EMG) and Nerve Conduction Velocity (NCV) test to determine the severity of the nerve damage.

Carpal tunnel syndrome is usually treated with a splint, which support the wrist and prevent it from moving forward toward the forearm, which exacerbates the median nerve compression. Sometimes the splints are used even during sleep. Often times anti-inflammatory drugs will be prescribed to decrease the inflammation and compression on the nerve.

In a very severe case, surgery may be required to decompress the median nerve. This surgery involves cutting a ligament which crosses the wrist, allowing the median nerve more room and thus decreasing the compression on it.

Key Terms

Carpel tunnel-A narrow passageway in the middle of the wrist through the bones in the ligaments through which the median nerve passes.

Median nerve-The nerve which runs from the wrist into the hand. It provides sensation and movement to the hand, the thumb, index finger, the middle finger, and half of the ring finger.

HELP

If you have suffered an elbow, wrist or hand head injury, or any other type of injury, you should seek appropriate medical help and if your injury was caused by another's negligence or fault, you should seek appropriate legal help bring a claim for compensation.

Feel free to call or e-mail The Injury Law Center® for answers to your questions and help with your legal claim.

Text by Attorney Ed Wallace

Injury Law Center®
info@attywallace.com
1-855-PI-ATTYS (1-855-742-8897)

Massachusetts
270 Littleton Rd. Unit 22
Westford, MA 01886
Phone: 978-589-9995

New Hampshire
39 Simon St. Unit 9
Nashua, NH 03060
Phone: 603-883-4100