

## **Peripheral Nerve Surg.**

### **PERIPHERAL NERVE SURGERY**

Neurosurgeons, neurologists and pain physicians frequently are called on to treat disorders of the peripheral nervous system. Carpal tunnel syndrome is a common disorder that interferes with the use of the wrist and hand. Pain, numbness and tingling in the wrist and hand usually begins by waking the patient up at night. Sometimes the pain worsens and patients develop weakness and other symptoms. Pregnancy may cause a physiologic carpal tunnel syndrome by causing fluid retention and most often after delivery the syndrome will resolve. Repetitive use injuries, wear and tear, ageing, and other injuries may result in carpal tunnel syndrome. Fortunately most patients improve with conservative treatment such as splints and medications. Splints may help decrease inflammation and symptoms and medications such as steroids and anti-inflammatories and analgesics may also decrease swelling and pain. Ulnar neuropathy is another peripheral neuropathy due to an injury at the elbow and can cause burning and pain down into the hand and small finger and ring finger.

Ruptured disc in the neck may mimic symptoms of peripheral neuropathy. Other injuries to the extremities may mimic these symptoms. Some patients have a combination of peripheral neuropathy, extremity injury as well as spine problems. The clinical tentative peripheral neuropathy diagnosis is made by a combination of history, physical examination, examination of diagnostic studies, such as nerve conduction velocity and/or electromyogram to study the nerves and the muscles innervated by nerves respectively. Fortunately most peripheral neuropathies improve with conservative treatment; however, if you worsen or fail with conservative treatment you may want to consider surgery. You should always get a second or third opinion prior to any surgical procedure and the okay of your primary care provider or family physician.

Carpal tunnel release involves a small incision in the hand to release and decompress the median nerve. Most carpal tunnel surgeries are performed on an outpatient basis. Ulnar neuropathy frequently is treated by a slightly larger incision over the elbow and sometimes requires a stay overnight in the hospital. The nerve at the elbow may be decompressed or transposed to help improve symptoms. Since surgery and anesthesia involves stress and risk to the cardiovascular system, you should always obtain approval from your family physician and cardiologist prior to surgical intervention. Weeks prior to surgery, you should discontinue any alcohol, caffeine, tobacco products, smoking, poor nutritional habits and poor lifestyle habits. A week prior to your surgery, you should discontinue any blood thinner such as Coumadin, aspirin, nonsteroidal anti-inflammatory, Plavix and other blood thinners, but only if approved by your family physician and cardiologist. After midnight the night before your surgery or at least 8 hours before your surgery you should not eat any solid foods or drink and fluids other than sips of water for any medication that is approved by your physician. The day of surgery, you will be asked to sign a consent regarding your understanding of the risk of the procedure, which include but are not limited to infection, bleeding, worsening pain and other complications up to including paralysis and death.

Postoperatively you should keep your dressing and incision covered for the first 48 hours and your extremity elevated over the level of your heart. You will be given discharge instructions and medications, but you should call your surgeon or doctor or report to the emergency room of you have a temperature of 101 degrees or higher, persistent drainage, weakness, or worsening symptoms. You may find more information about your specific peripheral neuropathy diagnosis on our web site [www.sbncmd.com](http://www.sbncmd.com) and following the links to the American Association of Neurological Surgeons and/or Congress of Neurological Surgeons and then follow the links to Public Resources or ask our staff to provide you with additional information.