

CARE about Your Employees

If an employee is injured on the job, the employer's responsibility does not end once the employee sees the occupational physician. It is at this point that the employer reinforces the employee's return-to-work and continued positive contribution to their company. The CARE model is proven to decrease injured workers' return-to-work and increase employee morale.

Call
Answer
Remind
Educate

A simple phone call to the injured worker while they are at home recovering has shown to significantly reduce litigation rates. People of all ages and

genders want to know that they are needed and missed. When this need is met by a simple phone call, followed by the rest of the CARE model, the desire to return to work and the likelihood of a swift recovery is dramatically increased.

Being available to answer any questions an injured worker may have about the workers' compensation process or benefits is vital. A prompt answer shows value is placed on and care is given about the employee's needs.

Encourage your staff to remind the worker that they care with cards, flowers and other signs of support.

Finally, assist to educate the injured worker on what to expect during their recovery time. Knowledge is a proven benefit and it is helpful for workers to understand their rights as well as

their responsibilities. The workers' compensation system can be extremely confusing, even for professionals who work in the field. Imagine what confusion an injured worker may experience navigating through the process alone.

Simply treating the injured employee as if they were part of your immediate family summarizes the CARE model. If a family member is injured or in the hospital, you would call, visit and send cards or notes of encouragement—the same care should be given to your work family.

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Comp1One Comments



New employees Janet Ryan and Beth Couch

Comp1One is pleased to announce the addition of Janet Ryan to our case management team and Beth Couch to our staff. Janet Ryan, RN, CRRN, CCM has 20 plus years of experience and has served as Vice President and President of the North Alabama Chapter of the CMSA. Beth Couch comes to Comp1One with over 10 years experience in healthcare, quality and outcomes.

Comp1One®

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Teamwork

A Periodical for Providers and Clients of Comp1One®

Comp1One®

Comp1One is a comprehensive injury management company and Preferred Provider Organization located in Huntsville, Alabama.

We feature an exhaustive provider network that extends throughout Alabama and into Southern Tennessee. This workers' compensation network has grown to over 1500 physicians, hospitals, and specialists that offer preferred rates and services, which generate direct cost savings to business and industry.

Comp1One is certified by the state of Alabama Department of Industrial Relations Workers' Compensation Division, and has been recognized for Best Practices in Injury Management in the state of Alabama.

Recent Advances in Lumbar Spinal Surgery



Larry Parker, M.D.
SportsMED

Over the last 10 years, spinal surgery has seen an explosion in technology. Most of these advances have involved the lumbar spine or lower back surgery, in particular, fusion procedures. A lumbar fusion involves arthrodesing or attaching together one or more adjacent vertebrae to create a single fusion or bony segment. This eliminates motion and creates stability which in theory decreases back pain or protects the neurologic elements. Fusions are indicated to treat conditions including lumbar instability which create back pain with or without neurologic features including leg pain.

Traditional fusion surgery of the lumbar spine involves a posterior lateral onlay fusion which indirectly fuses the spine by placing bone along the sides or gutters of the vertebrae. This procedure is quite invasive and generally associated with a long recovery process. In addition, the outcome of this procedure is somewhat unpredictable and is often complicated by a pseudoarthrosis or failure of fusion. For these reasons, surgeons have continued to look for better, more predictable, and

less invasive methods to achieve a fusion. In the late 1980's, the development of pedicle screws to internally fixate two vertebrae together improved fusion rates significantly, but did not always improve the outcome in terms of pain relief. More recently, the introduction of interbody fusion techniques have shown significant promise in improving the outcome of fusion surgery. An interbody technique can be accomplished by approaching the spine through the abdomen known as an Anterior Lumbar Interbody Fusion (ALIF) or through the back known as a Posterior Lumbar Interbody Fusion (PLIF). In some cases, a

combined anterior and posterior approach is utilized. Specific fusion devices including titanium and carbon fiber cages as well as cadaveric allograft products have greatly improved the interbody fusion techniques.

Current research has focused on the biological aspects of fusion and in developing minimally invasive techniques to achieve fusion in a less invasive manner. Within the last month, the FDA has approved a new bone graft replacement product known as bone morphogenic protein. This genetically derived product has been shown to improve fusion

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Radial Tunnel Syndrome



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Everyone has heard of Carpal Tunnel Syndrome! Many have heard of Cubital Tunnel Syndrome! But only a few know of Radial Tunnel Syndrome!

Radial Tunnel syndrome (RTS) is a condition that causes aching pain in the forearm just below the elbow. Many people confuse it for tennis elbow (lateral epicondylitis). The condition can be difficult to diagnose. The physician must rely on the History and Physical to make the diagnosis.

The radial nerve is one of the three main nerves that travel down the arm. It starts at the side of the neck and then travels behind the arm; it then crosses the elbow on the outside as it travels down the forearm into the hand. At the outside or lateral portion of the elbow the radial nerve travels in a tunnel that is formed by surrounding muscles and bone. It actually runs below the muscle that allows you to turn your hand so the palm is facing up. This muscle is known as the supinator muscle. Once the radial nerve goes under this

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Legal Brief

On 2/22/02, the Alabama Court of Civil Appeals released a decision in Landstar Ranger v Kent. The case involves a claimant who sustained a right upper extremity injury at work. While undergoing physical therapy for the right upper extremity, he allegedly injured the left upper extremity. An orthopedic surgeon testified that the employee "could" have caused the left shoulder injury. This second injury was held compensable by the trial court and affirmed on appeal. This is significant in that the employer will be held liable for injuries that occur during a course of physical rehabilitation of a previous injury, absent some "independent intervening cause attributable to the claimant's own intentional conduct."

The facts of this case will sound familiar because this same court reached a different conclusion in a strikingly similar case, LFI Pierce v Carter & Foster. In Mastec North America v Holton, the injured worker was a member of a crew boring a path for a telecommunications conduit under a river. On 10/14/99 the boring machine broke down. The foreman later discovered that some of the workers had found a rope swing over the river and were swinging across it, as well as jumping from it into the water. While swinging on the rope, Holton fell into shallow water and sustained a head and neck injury, which left him paralyzed from the waist down. The trial court found the claim to be compensable and awarded permanent and total benefits. The Alabama Court of Civil Appeals reversed and held: "when an employee substantially steps outside of his employment, this conduct constitutes a substantial deviation from his employment. If an employee is injured while substantially deviating from his employment, the employee's injury is not a compensable injury because the injury does not arise out of and in the course of his employment." In this case, the worker claimed he was "cooling down" by swinging on the rope. However, the court stated that "if the employee's method of seeking personal comfort is unreasonably dangerous or unconventional, it may not be considered incidental to his employment." The court concluded that the action of attempting to jump in the river from a rope swing is an "unreasonably dangerous or unconventional method" of cooling off.

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Radial Tunnel Syndrome, cont.

muscle, it branches out to supply muscles on the back of the forearm.

Repetitive activities such as forceful pushing and pulling, bending the wrist, gripping and pinching can stretch and irritate the radial nerve as it goes under the tunnel. This irritation can lead to Radial Tunnel Syndrome (RTS).

The symptoms of RTS are very similar to lateral epicondylitis or tennis elbow. There is tenderness and pain at the lateral side of the elbow. In tennis elbow the point of tenderness is usually at the site of the insertion of the tendon into the lateral epicondyle. In RTS the tenderness is about 5cm further down the arm, right over where the radial nerve goes into the supinator muscle.

Diagnosis of RTS can be difficult. Many cases are initially thought to be tennis elbow. A thorough history and physical that pinpoints the area of maximal tenderness is probably the best way to make the diagnosis. Electrodiagnostic studies can be performed; however, these studies don't

show abnormalities in many patients that have RTS.

The goal of treatment should be to avoid repetitive activities that may have caused the problem. Wearing a wrist immobilization splint in 45 degrees of dorsiflexion for days to weeks may rest the muscles and allow the nerve to recover from irritation and pressure.

Anti-inflammatory medications such as Aleve or Ibuprofen may decrease inflammation and relieve pain. If non-operative management fails then surgery may be suggested. The goal of surgery is to find the place in the tunnel where there may be excessive pressure and to remove that pressure or pinching. Please note that surgery is not always successful at relieving the symptoms of RTS and probably will only be suggested as a last resort.

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Recent Advances in Lumbar Spinal Surgery, cont.

rates similar to those of autograft (taking the bone from the pelvis).

This new product may significantly decrease the need for harvesting a bone graft from the pelvis which is a common source of pain after fusion surgery. Minimally invasive surgery employs the concepts of endoscopic and microscopic techniques to try and achieve fusions with smaller incisions and less muscle dissection. These techniques show great promise and are currently under investigation with several different methods. They will continue to become more common-place over the next couple of years. With the advent of these techniques, we should continue to see lumbar fusion surgeries move toward an outpatient operation. The hospitalization and time out of work should continue to decrease as well.

Though lumbar fusion surgery continues to remain the most difficult and

controversial of all the spinal procedures, current and future advances will continue to improve the outcome of this intervention. Until a reliable disc replacement is developed, lumbar fusion will remain a necessary intervention for many patients with lumbar disc problems.

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Services by AL DIR Work Comp Division:

- Brochures on the Ombudsman Program and on Work Comp insurance coverage for employers
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Clinical Comments
Electromyography (EMG)



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The clinical EMG is an extension the history and physical examination that is performed by the physician. Only qualified physicians should perform electrodiagnostic tests. Physicians that are specifically trained to perform this test are physiatrists and neurologists. After performing the history and physical examination the electromyographer decides what nerves need to be tested as well as what muscles need to be evaluated. In the course of the testing, abnormalities may be found that will change the direction of the test.

Electromyography testing (EMG) involves two primary activities. First is nerve conduction testing and second is the needle electromyography. Nerve conduction testing is performed using sophisticated equipment that involves stimulating nerves evoking a response in a muscle or in the nerve ending itself. Needle electromyography involves insertion of needle electrode into skeletal muscles and observing the muscles through an oscilloscope along with a loudspeaker interpretation. The purpose of nerve conduction study and needle electromyography is to detect abnormalities in the peripheral neuromuscular system.

Nerve conduction studies are performed by artificially stimulating a nerve and recording from a distal innervated muscle or sensory nerve ending. When there is a loss of the myelin or nerve covering, conduction will be slowed, sometimes significantly. Comparison of the conduction slowing and amplitude of the waveform help the physician determine the severity and location of a neuropathy. With focal entrapment neuropathies, such as carpal tunnel,

conduction slowing will be seen at the specific site of compression, namely across the wrist. Nerve conduction studies can also be beneficial in evaluating neuromuscular junction disorders such as myasthenia gravis, Lambert-Eaton and botulism.

Needle electromyography involves a needle inserted into specific muscles to detect loss of neurons innervating a muscle or muscle damage itself. The cause of abnormalities or denervation of muscle fibers may be secondary to nerve root compression such as a radiculopathy from a ruptured disc, mass, or arthritis causing encroachment of the nerves leaving the spinal cord. Significant peripheral compression on a nerve can also cause axonal loss and denervation. Specific damage to a nerve is either from demyelination or axonal loss. (Axonal loss can best be described if you think of the nerve as many wires bundled together and some of these wires have been cut. Demyelination is a loss of the covering on the nerve, which can slow conduction.) Demyelination is not seen on needle exam but axonal loss is seen and heard on needle exam. Other types of compressions causing denervation include cubital tunnel syndrome where the ulnar nerve is compressed at the elbow and tarsal tunnel syndrome where the tibial nerve is compressed at the ankle. These are only a few, but the most common compression neuropathies. Needle electromyography is also helpful for myopathic disorders when the muscle fiber itself has been damaged from a specific disease process. Examples of a myopathy are muscular dystrophy, which is a congenital myopathy, steroid myopathy and metabolic myopathies.

In summary, electrodiagnosis involves nerve conduction studies and needle electromyography. It is a highly specialized practice of medicine performed by physiatrist and neurologists. It is a powerful physiologic exam of the peripheral motor and sensory nervous system and it is extremely valuable in the contemporary practice of medicine. It assists the referring physician to make a diagnosis and follow treatment.

is a pre-sterilized disposal needle that has an exposed end from which activity from the muscle is evaluated. It is inserted through the skin in various muscles. This is somewhat uncomfortable but not intolerable. The patients do not have to be sedated or given any pain medications for this test to be performed. If the patient is uncomfortable the physician can vary his technique to lessen the discomfort. Very infrequently will the test have to be stopped because of discomfort from the EMG exam.

2. Does the nerve conduction study hurt? The nerves are stimulated artificially and cause minimal discomfort to the patient. Very infrequently will the test have to be stopped because of discomfort from nerve conduction studies.
3. How should the patient prepare for an electrodiagnostic study? The patient should not wear colognes, heavy oils, or skin lubricants prior to the testing.
4. How long does the test take? Generally the combined nerve conduction studies and needle EMG will take approximately 45 minutes to an hour depending on how many muscles need to be examined.

Some questions about EMG:
1. Does EMG hurt? The EMG needle

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