PM&R knowledge NOW®

A resource on Physical Medicine and Rehabilitation (PM&R) topics developed by the American Academy of Physical Medicine and Rehabilitation (AAPM&R)

Epicondylosis (Lateral) With and Without Nerve Entrapment

Condition: Lateral epicondylosis (LE) is a common painful condition that affects the tendons that join the forearm muscles on the outside of the elbow. This condition is often referred to as “tennis elbow”.

Background: LE is the most common cause of elbow pain and typically occurs in patients of both genders in their 30s and 40s. LE is a degenerative process that results from repetitive stress, causing injury and inflammation in the tendons that join the forearm muscles. Although this condition is often referred to as “tennis elbow”, only 5% of cases actually result from racquet sports.

Risk Factors: Men and women have a roughly equal chance of being diagnosed with LE. The risk factors include faulty action mechanics, overexertion, or repetition with poor wrist and forearm positioning. It is important to see a physical medicine and rehabilitation (PM&R) physician to identify the risk factor most likely to be the cause of LE in each individual case. Identifying the cause of LE with your physician is vital to prevent conditions that can result from untreated LE, such as, nerve compression and tendon rupture.

History and Symptoms: LE pain is often sharp and localizes to the outside of the elbow, although it may radiate from the elbow. Pain may increase due to activities that involve gripping, straightening, or flexing the wrist. Swelling may also be observed. If entrapment of the nerve that passes through the elbow (radial nerve) occurs, the patient may have numbness and weakness in the elbow, wrist, hand, and lower arm. A history of pain or swelling in other joints and aggravating and relieving factors, is important. Information about one’s job, hobbies and other activities are also relevant and should be discussed with your PM&R physician.

Physical Exam: PM&R physicians will perform a physical exam to assess and inspect the wrist, elbow, shoulder, and neck. The range of motion and tenderness upon touch to the area of the elbow will be examined. If need be, the stretching ability and grip strength of hand may be tested.

Diagnostic Process: In order to diagnose nerve entrapment correctly, sensation and motor responses of the muscles, including reflexes, should be evaluated. When evaluating athletes, analyzing their technique is essential. Diagnostic tools such as X-rays, MRI, and ultrasound can help PM&R physicians diagnose LE and rule out any other problems.

Rehab Management: After patients see a PM&R physician for LE, about 80% of patients report improvement within one year, and less than 11% of patients require surgery. Patient with severe cases of LE, splinting and bracing the arm may be used but it is also recommended to rest the affected arm. To help with the pain certain medications, such as topical or oral non-steroidal anti-inflammatory drugs (Ibuprofen, etc.), and cryotherapy (cold compression), can be used. Exercise therapy should include wrist extension exercises, passive stretching, and progressive strength training. If self-management of pain does not work, then you can go see a PM&R physician to receive injections of cortisone to help for a short-term solution. Other treatment options (topical glycerol trinitrate patches, transcutaneous nerve stimulation [TENS], therapeutic ultrasound, or acupuncture) also may be beneficial. PM&R physicians are highly trained to use ultrasound as a diagnostic and therapeutic tool for the treatment for LE. Treatments like ultrasound guided injections with prolotherapy or platelet-enriched plasma are used to treat chronic LE. What is so unique about PM&R physicians, is that they use non-invasive ultrasound technology to locate damaged

tendons and nerves to help localize treatment to the area of pain. With ultrasound, PM&R physicians are able to use focused injections of medications to the exact area that is causing discomfort. .

Other Resources for Patients and Families: Patients should be educated about modifications to sports or work-related activities by PM&R physicians. Family and societal roles may be affected, suggesting that support for patients and families is beneficial.

Frequently Asked Questions

What is PM&R?
Physical medicine and rehabilitation (PM&R), also known as physiatry, is a primary medical specialty that aims to enhance and restore functional ability and improve quality of life to those with injuries, physical impairments or disabilities affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles and tendons. PM&R physicians, known as physiatrists, evaluate and treat the whole body, maximize patients' independence in their daily life and are experts in designing comprehensive, patient-centered treatment plans to empower patients to achieve their goals. By taking the whole body into account, they can accurately pin-point problems, decrease pain, assist in recovery from devastating injuries and maximize overall outcomes and performance with non-surgical and peri-surgical options. To learn more, visit www.aapmr.org/aboutpmr.

What makes PM&R physicians unique?
PM&R physicians' training focuses not just on treating medical conditions, but on enhancing the patient's performance and quality of life in the context of those medical conditions. They focus not only on one part of the body, but instead on the development of a comprehensive program for putting the pieces of a person's life back together – medically, socially, emotionally and vocationally – after injury or disease. PM&R physicians make and manage medical diagnoses, design a treatment plan and prescribe the therapies that physical therapists or other allied therapists perform or that are carried out by the patients themselves. By providing an appropriate treatment plan, PM&R physicians help patients stay as active as possible at any age. Their broad medical expertise allows them to treat disabling conditions throughout a person's lifetime.

Why see a PM&R physician?
A PM&R physician will thoroughly assess your condition, needs, and expectations and rule out any serious medical illnesses to develop a treatment plan. By understanding your condition and goals, you and your PM&R physician can develop a treatment plan suited to your unique needs.

How do I find a PM&R physician near me?
Visit www.aapmr.org/findapmrphysician or contact your primary care physician for a referral.