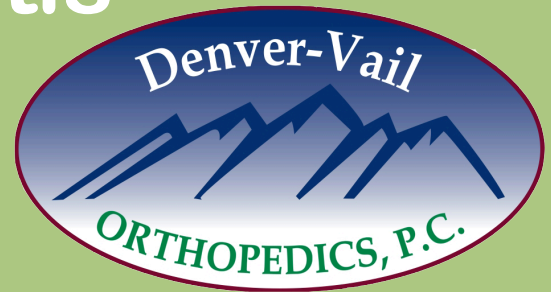


Lateral Epicondylitis

Tennis Elbow

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Lateral epicondylitis, or tennis elbow, is a common cause of elbow pain in adults. The cause of this pain is related to a partial tear, or degeneration, of one of the tendons that extends the wrist. Frequently the pain will resolve with non-surgical management.

Lateral epicondylitis is fairly common and affects 1 to 3% of adults each year. Despite how common this disorder is there is no single effective or consistent management. Management of this disorder includes non-surgical as well as surgical treatment. It is best to exhaust all non-surgical treatment options before considering surgical management.

SYMPTOMS

The common symptom of tennis elbow is pain over the lateral (outside) aspect of the elbow. It usually occurs insidiously and gradually worsens. Although, there may be a dull ache, a sharp pain occurs with activities involving wrist extension and gripping objects. Frequently people will note that opening up a door, lifting up a briefcase, pulling or lifting luggage or picking something up will cause pain.

PHYSICAL EXAMINATION

The pain of lateral epicondylitis is located over the outer aspect of the elbow. Usually, there is one area that is significantly tender to palpation. The pain is also exacerbated with resistance against wrist

extension and straightening the fingers, particularly the long finger. Usually, it is not associated with any swelling or numbness. The range of motion of the elbow is usually full, however, pain may be noted when extending the elbow fully.

IMAGING

Radiographs, or x-rays, are taken of the elbow. Most of the time the x-rays will be normal, however, occasionally a small area of calcification may be noted in the area of tenderness. Unlike an x-ray



MRI's are much better evaluating soft tissue disorders. An MRI is usually not recommended initially, however, if the pain continues it is an excellent test to

evaluate the elbow. If lateral epicondylitis is the problem it will show a partial tear or degeneration of the tendon. It is also helpful in ruling out any other disorders, which could be causing the pain.

NON-SURGICAL TREATMENT

Initial treatment includes rest (avoidance of exacerbating activities), and anti-inflammatory medications. Although lateral epicondylitis is characterized as a non-inflammatory condition, anti-inflammatories may help relieve pain from acute inflammation in the surrounding tissues and may act as an analgesic. There are some scientific studies that showed anti-inflammatories were helpful in alleviating pain.

Physical therapy is another modality that can be used. Therapy focuses in on increasing forearm strength, flexibility, and endurance. Bringing the wrist into flexion with the elbow straight performs stretching of the extensor origin. Strengthening exercises are done in an eccentric manner. Eccentric exercises are those exercises in which strengthening occurs as the muscle lengthens. These types of exercises are taught by a physical therapist and can then be done at home.

Injections can also be beneficial. If this problem has been going on for more than a month then a steroid injection can be considered. This involves injecting an anti-inflammatory steroid into the area of tenderness. Pain relief can be expected from six weeks to many months or it may cure the problem. Multiple injections (more than 2 to 3) are not recommended, as there can be side effects. Side effects include atrophy of the tissue in that area as

well as weakening the tendons and ligaments.

Other treatment options include a cock up wrist splint. It is thought that by immobilizing the wrist that it will reduce the tension on the partially torn tendon. Another splint or strap that can be effective is a tennis elbow strap. This goes around the forearm just below the elbow. It is thought that this strap can diminish the tension on the injured tendon.

SURGICAL MANAGEMENT

When non-surgical management is not effective after approximately 3 months then surgical management is an option. If surgical management is to be considered I recommend evaluating the elbow with an MRI. An MRI can help confirm the diagnosis as well as locate the area where the tendon is partially torn. The goal of surgical management is to clean up and debride the area where the tendon is partially torn. The muscle and tendon is also partially released from its attachment onto bone. Small drill holes are made into the bone to release stem cells that will initiate a healing response. The fascia (covering) of the muscle is then closed. A splint (partial cast) is then placed with the elbow at a right angle and the wrist straight.

The splint is then removed 10 to 14 days after the surgical procedure and the sutures are removed. At this point, range of motion, straightening and bending the elbow is encouraged. It is not

recommended that any lifting or grabbing be performed for the first six weeks after surgery. At 2 to 4 weeks after surgery physical therapy is initiated to assist in regaining range of motion and strength. At 8 to 12 weeks following surgery one can gradually return back to full activities as pain allows.

The surgery is fairly successful. Approximately 75 to 90% of patients will note improvement in their pain.

OTHER OPTIONS

One new option that is being evaluated is injecting growth factors into the area of the damaged tendon. This procedure involves drawing blood from the patient and then concentrating the platelets. Platelets are cells that help clot blood but they also have growth factors. The idea behind this procedure is to inject a concentrated clot of platelets into the area of the damaged tendon. The growth factors in the platelets are thought to have the ability to initiate healing within the tendon. Although there have not been any large studies evaluating this technique, smaller preliminary studies look encouraging with results similar to surgical management.

If you have questions about this disorder or other orthopedic problems please call the office for an evaluation.

