

## What is tennis elbow

Lateral elbow pain usually occurs as a result of tendinopathy in the extensor carpi radialis brevis tendon which is used to extend and stabilise the wrist. It can be caused by overuse, poor technique in racket sports, heavy rackets, small grips, excess PC or mouse use. Sometimes there is no cause for the condition but usually it is preceded by repeated wrist extension activity.<sup>10</sup>

## Taping and splints

There is limited evidence available regarding the efficacy of braces, clasps and taping for tennis elbow. However, it does show that the most effective results are gained by combining the use of a splint and physiotherapy. Research indicates that wrist extension splints (futura splint) may be more helpful than other types, such as elbow splints or arm bras, these are widely available online and from most pharmacists.<sup>1-4</sup>

## Manual therapy

Physiotherapy may be useful if pain is the main symptom. Treatments which may be offered include Mill's manipulation, mobilization techniques and friction massage. Research suggests that manual techniques provide a short-term analgesic effect which may allow you to start your stretching and strengthening exercises earlier, resulting in an improved long term outcome. The research is inconclusive regarding long term clinical effects for manual therapy alone but we know outcomes are more effective when combined with exercise.<sup>3,5,9</sup>

## Exercise

Specific strengthening exercises have been shown to improve pain, function and muscle strength in people who have been diagnosed with tennis elbow. The type of exercises and frequency of exercises need to be tailored to the length of time that somebody has had symptoms for. It is recommended that for the first three weeks of symptoms exercises, should be completed only three days a week. After three weeks of symptoms, frequency of exercises should increase to six days per week.<sup>1</sup> Please see the exercise sheet for diagrammatic details.<sup>3,5,9</sup>

## Steroid injections

These can offer short term relief of pain, but symptoms may recur and may be worse in the long-term. Further injections may be suggested through specialist orthopaedic services if not improving with conventional measures such as rest and physiotherapy.<sup>3,6</sup>

## Surgical interventions

In most cases this should be avoided for some time (18 months to 2 years) as most symptoms will improve with conservative methods alone (physiotherapy, rest, bracing etc.). If symptoms fail to improve over this time frame then surgery may be indicated.

Surgery is widely believed to be successful for lateral epicondylitis however, there is only a small quantity of high quality evidence to either support or discourage the use of surgery.

A number of surgical techniques are available including Open, Arthroscopic and Percutaneous/Endoscopic. There is no clear evidence for or against individual approaches or surgical techniques and they are dependent upon surgeon preference. The Arthroscopic

procedure is said to produce the same outcome as Open, but with the added benefits of being less invasive and a quicker recovery.<sup>5-9</sup>

### Electrotherapy

There is no good evidence in favour of using ultrasound over placebo treatment for tennis elbow.<sup>3</sup> Shock wave therapy provides little or no benefit in terms of improving pain and function in tennis elbow, it may cause pain, nausea and reddening of the skin.<sup>8</sup> There is some evidence to indicate that Laser might be beneficial in the short term compared to placebo, but Laser is not better than other active interventions in the long term.<sup>11</sup>

### Acupuncture

While there appears to be conflicting evidence, acupuncture might be more effective than placebo and more effective than ultrasound at relieving pain and improving functional benefit in the short term.<sup>12</sup>

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