Tennis Elbow (or Lateral Elbow pain) is one of the most common overload injuries that we see in the over 35’s. It is characterized by pain on the outside of the elbow, usually near the prominent bone where the tendon attaches, aggravated by gripping or wringing activities.

This report summarises some of the common causes, presentations, treatment myths as well as best current treatment Tips and Tricks as of 2017!

**How long does Tennis Elbow Last?**
Duration of symptoms varies from 10 days to several years. Contrary to some beliefs, it is not a self-resolving condition. In fact, clinically, patients who have had Tennis Elbow for more than 30 days tend to develop pain and stiffness from adjacent structures such as the nerves, ligaments, fascia and joints. It is therefore a multistructural pathology which requires a multimodal treatment approach.

**Who gets Tennis Elbow?**
Physically active people of increasing age. This includes hobbies such as gardening, pruning etc. People who repetitively overload their elbows in their occupation. For example, oversusing the computer mouse, car mechanics, painters etc. Sports Men & Women who overload, as opposed to consistent loading, which tendons prefer. If the sportsman increases his or her training, or competition levels, the tendon reacts & becomes acutely painful with gripping activities such as holding a racket, shaking hands, brushing the dog etc. Also, older keen sportsmen who do no activity & then cram it in (eg suddenly surfing on holiday).

Similarly, ‘weekend warrior’ type exercisers tend to go from tendon under-load to over-load. Men with a high BMI (increased girth around the waist) are predisposed to Tendinopathy. Peri-menopausal & Menopausal women as Oestrogen is tendon protective. Once the Oestrogen levels decrease, the tendons are less able to withstand load. The use of Quinolone antibiotics (eg Ciprobay) can predispose some patients (incidence approximately 2% or 1: 50) to accelerated tendon degeneration for up to 6 months after taking the antibiotic. Steroid therapy (eg renal disease), Diabetes, Hypertension and Hyperthyroidism are examples of medical conditions that have been shown to be associated with Tendinopathy. Poor Sleep habits is a high risk factor for multiple musculoskeletal conditions. A combination of some or all the above (Scott et al, 2015). Very often patients present with more than one contributing factor. These need to be identified during an in-depth & detailed assessment so that a prescriptive, specific rehabilitation & management program can be designed for each individual.

**What investigations are helpful?**
In stubborn cases, an X/Ray can rule in or out a ‘jointy’ component to the painful elbow. Imaging of the elbow with Ultrasound (U/S) can show tendon degeneration, However, findings on U/S do not correlate with symptoms or outcomes and it is emphasised that findings on imaging cannot dictate the treatment that a patient receives (Coombes et al, 2015).

A negative scan is beneficial however, as it clearly rules out a diagnosis of Tennis Elbow. Also, if the U/S picks up ligament damage to the associated lateral collateral ligament, it may explain patients that are responding poorly to conservative management. MRI arthrography
may be used to pick up other pathologies such as loose bodies, Plica syndrome, cartilage damage or injury to the ligaments.

A Uric Acid Blood test can be helpful to assess for Gout.

**What Treatment Doesn’t work?**

- **Cortisone injections.** They have been shown to significantly reduce pain for the 1st 6weeks. However, good studies consistently show patients who receive one or more cortisone injections to have the worst outcomes at 1 year, even worse than the group that has had no treatment at all (Coombes et al, 2010)

- **Platelet Injections.** Despite anecdotal reports to the contrary, there is no evidence in well conducted trials of any benefit (Krogh et al, 2013; de Vos et al, 2014)

- **Extra-Corporeal Shock-wave Therapy (ESWT).** There is no good evidence currently to support its use (Bisset et al, 2005)

- **Electrotherapy (Ultrasound, Interferential).** There is no evidence of its benefit. In fact, preliminary evidence (animal studies) suggests that treatment to the tendon attachment with Ultrasound is damaging.

- **Anti-inflammatories.** As this is mostly a degenerative condition, there is very little inflammation, so that anti-inflammatories will not help. However, many patient report feeling better when they take them and this may be due to inflammation of surrounding tissues such as ligament and joint.

**What treatment does help?**

- **Brufen.** Not as an anti-inflammatory, but via a different pathway which seems to settle down a reactive tendinopathy (Aggrecan inhibitor). Therefore, the use of Transact Plasters may also help.

- **Active Rest.** Avoid all aggravating movements & activities. For example, use the opposite arm to shake hands, pick up a cup, open the car door. A ‘sporting elbow’ often does better than an ‘occupational elbow’ as one can rest from the aggravating sporting activity, but often not from the aggravating movements at work!

- **Avoid sleeping** with the elbow fully flexed (foetal position). You will know this is problematic if you wake in the night with elbow pain or if the elbow is stiff on waking in the morning. Place a cushion in the crook of the elbow to keep it in neutral at night.

- **Elbow Cuff.** Your physio can use a Grip Dynamometer to assess if the use of an elbow cuff will help you or not. It is important to assess each patient as an individual as there can be no ‘One size fits All’ approach to treatment.

- **Manual therapy techniques** can be highly effective especially if directed at the affected structures. This necessitates a detailed initial assessment to determine which areas and structures are contributing to the elbow pain. This includes the 3-joint complex at the elbow as well as the shoulder, cervical spine, thoracic spine, neural components and fascial systems.

- **Exercise.** The use of a progressive exercise program has been shown to be highly effective in management. It is important that exercise is prescriptive and is Painfree both during the exercise as well as 24 hours afterwards. Exercises start with Isometrics (sustained static holds) as these have been shown to be highly effective in pain management in tendinopathy (Rio et al, 2015). Rehab then progresses to resisted exercises during active movements of flexion and extension, as well as pronation and supination. The use of elastic tubing is very useful in applying resistance throughout a movement.

- **Management of all associated factors.** This may include weight loss, possible use of HRT, improved sleep & lifestyle habits and Postural correction.

- **Persistent pain** of a greater duration than 3 months has been shown to have an associated Centrally mediated pain mechanism. This results in over-firing of certain pain mechanisms resulting in hyperalgesia (abnormal pain response to a non-painful stimulus). Recognition of this associated mechanism to the pain presentation & education by the Physiotherapist is an important component when managing persistent pain.
**How long does it take to get Better?**
In my clinical experience, the sooner management is started (and this includes active rest), the better the outcomes. Ideally, treatment should start within 30 days for best outcome.

**When should surgery be considered?**
A good surgeon will not consider Surgery until the patient has had at least 6 months of conservative management. This does not mean Physio for 6 months, but a program which covers the above issues, including weight management, active rest and a progressively loaded exercise program that is Painfree and prescriptive. Some hypothesise that Surgery is successful as it forces the patient to rest the arm for 6 weeks. Perhaps then, if the patient fully rests the arm as if they have had surgery (eg wear a sling in the initial acute phase), outcomes may be better.

In summary, the best recommendation I can give is that if you have elbow pain, consult with a Physiotherapist with an interest in Upper limb conditions, specifically of the elbow. A detailed assessment is essential to make the correct diagnosis. This is the cornerstone for a prescriptive individualised treatment of this seemingly simple, but actually complex multifactorial pathology.

**References**