

# Tennis Elbow

Lateral epicondylitis · common extensor origin tear

Not inflammation — a degenerative tear. Which is why anti-inflammatory treatments disappoint, and why the tendon needs repairing rather than quietening.

## What is actually happening

Despite the name, tennis elbow is not an inflammatory condition. The pathology is **angiofibroblastic degeneration of the common extensor origin** — principally the ECRB — with disorganised collagen, neovascularisation and an absence of inflammatory cells, with frequent **partial tearing of the common extensor origin**. The tendon has tried to heal and failed — tendinosis, not tendinitis — which is why the conventional ladder underperforms.

## Typical presentation

- Pain over the lateral epicondyle radiating into the extensor mass; often in patients who have never played tennis
- Worse gripping, lifting with the palm down, wringing, using a screwdriver
- Pain on resisted wrist and middle-finger extension
- Tenderness ~1 cm distal to the lateral epicondyle; weak grip from pain

## Why the usual treatments disappoint

### Corticosteroid — worse at twelve months

Short-term relief, but randomised evidence shows poorer outcomes and higher recurrence at one year than placebo or physiotherapy. Repeat injection risks further degeneration.

### PRP — not shown superior to saline

The better-controlled trials have not demonstrated benefit over placebo injection.

### Wait and see — around a year of pain

Natural history is commonly twelve months or more, and a substantial minority never fully resolve.

### NOT SUITABLE IF

- Outside **18–65 years**
- **Full-thickness tendon tear** that has not been repaired
- Diabetes; immunocompromise or autoimmune disease; pregnancy
- Allergy to aminoglycosides or bovine material; relevant malignancy
- On corticosteroids, diclofenac or fluoroquinolones

## ATI — Autologous Tenocyte Implantation

A small tendon sample is taken, the patient's own **tenocytes** are isolated and expanded in culture by Orthocell over about six weeks, then implanted into the degenerate tendon under ultrasound guidance. Each vial carries **2–5 million tenocytes** in a solution supplemented with the patient's own serum. The aim is to repopulate a failed tendon with the cell type that belongs in it.

**Tenocytes are not stem cells.** They are mature, tendon-specific cells. ATI is not a stem cell therapy.

## THE BIOPSY COMES FROM THE WRIST

Conventional ATI protocols harvest from the **patellar tendon** — leaving a patient with a sore elbow also nursing a sore knee. Harvest of a small segment of **palmaris longus or FCR** at the wrist keeps the donor site in the same limb, the same operative field and the same local anaesthetic.

## REFER EARLY

- Do not wait out a year — outcomes are better before the tendon becomes chronically degenerate
- Symptoms beyond **2–3 months** of conservative treatment
- Failed load-based physiotherapy
- Recurrence after steroid injection
- Patients wanting to avoid open debridement

## AVAILABLE TO

- Private patients
- WorkCover Queensland
- Third party & self-insured
- ADF

**Approximately \$3,000** for private patients. Not covered by Medicare. Funded in full for WorkCover, third-party and ADF patients where approved.

## YOUR SURGEON

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