

The logo features the word "Bio" in a large, red, cursive font, with "TECHNOLOGY" in a smaller, black, sans-serif font below it. A thick black curved line arches over the text.

Bio
TECHNOLOGY

**TENNIS ELBOW –
CAUSES,
SYMPTOMS,
THERAPY**

THE ARTICLE CONTAINS:

- 1- What is tennis elbow ?**
- 2- Causes of onset**
- 3- Symptoms**
- 3- How to diagnose tennis elbow ?**
- 5- Tennis elbow – therapy**
- 6- Shock Wave therapy for tennis elbow**
- 7- Surgery**

1. WHAT IS TENNIS ELBOW (LATERAL EPICONDYLITIS)?

A nomenclature tennis elbow is a more known name for a proximal wrist extensor tendinopathy.

What is it? It is a condition of the wrist extensor muscles at their proximal attachment site on the lateral humeral epicondyle. This condition is mainly caused by muscle overuse.

IS TENNIS ELBOW AN OCCUPATIONAL DISEASE?

Tennis elbow is an occupational disease that many people struggle with. Who is most commonly affected by this condition? Despite its name, this type of injury mainly affects not tennis players but office workers, mechanics, and tailors.

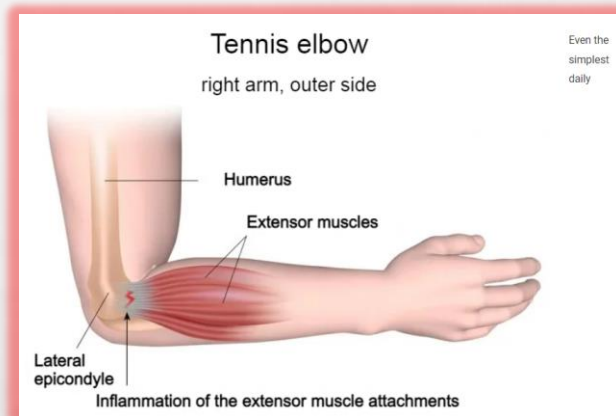
2. CAUSES OF INJURY – WHERE DOES THE TENNIS ELBOW COME FROM?

The main cause of tennis elbow is considered to be non-inflammatory degenerative changes in the extensor muscle attachments of the wrist. These changes occur as a result of prolonged muscle overuse, which in turn is caused by repetitive movements of the hand and upper limb or forearm pronation/supination.

Activities that lead to microtrauma include, for example, typing on a keyboard or driving screws.

3. WHAT ARE THE SYMPTOMS OF TENNIS ELBOW?

A characteristic symptom of tennis elbow is the pain located in the area of the lateral epicondyle of the humerus – in the place of muscle attachment. That pain can also radiate along the affected forearm or wrist muscles.



activities such as lifting a glass or turning a doorknob can become difficult as the condition progresses. Pain occurs as soon as the wrist is engaged.?

Other symptoms of tennis elbow include:

- wrist weakness,
- tenderness of tissues in the elbow area when pressed,
- morning stiffness of the elbow,
- swelling along the outer edge of the elbow.

4. HOW TO DIAGNOSE TENNIS ELBOW?

If symptoms indicate tennis elbow, one should immediately seek a specialist's help. This condition will not go away by itself. A doctor or a physiotherapist recognizes tennis elbow by performing a simple examination that does not require specialized equipment.

WHAT TESTS HELP TO DIAGNOSE TENNIS ELBOW?

Diagnosis of tennis elbow is based on an interview with a patient and a physical examination. It involves performing functional tests, comparing both limbs and checking the level of pain sensitivity. To confirm the diagnosis, an orthopedic doctor may refer patients for an ultrasound examination.

5. TENNIS ELBOW – THERAPY

How can tennis elbow be treated? Comprehensive physiotherapeutic therapy should include kinesiotherapy, manual therapy, taping, massage, and therapy with physiotherapeutic devices. Therapy should be conducted not only in the area of pain but also in tissues that may directly or indirectly affect the increase of resting tension of the muscles in the anterior forearm group and thus hinder or prevent their relaxation.

What helps with tennis elbow?

Both the duration and methods of treating tennis elbow depend on the nature and size of the tendon changes. Ice packs can be used in the initial phase, but it is also worth using other methods of treating tennis elbow. Basic methods of treating tennis elbow include using braces and kinesiology taping, as well as performing stretching and strengthening exercises. Another extremely important aspect is physical therapy with the use of physiotherapeutic devices.

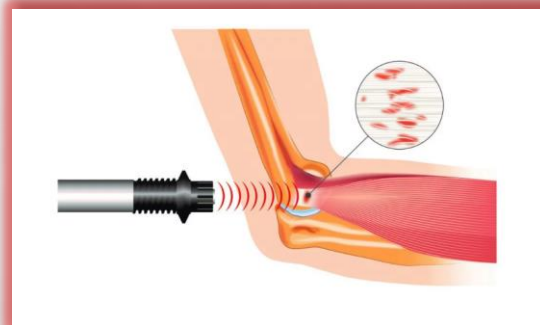
PHYSIOTHERAPEUTIC TREATMENTS FOR TENNIS ELBOW:

- Low-frequency magnetic field,
- IR radiation,
- Polarized light,
- Electrotherapy (interferential currents, diadynamic currents, Trabert currents, TENS, iontophoresis),
- Thermotherapy,
- Local cryotherapy,
- Hydrotherapy,
- Ultrasound therapy,
- Laser therapy

Another rehabilitation method for tennis elbow is a **massage** performed by a physiotherapist. Relaxing massages and appropriate rest significantly reduce perceived pain.

6. SHOCK WAVE THERAPY FOR TENNIS ELBOW

Shockwave therapy is one of the available methods for treating tennis elbow. Shock wave therapy significantly speeds up the regeneration process, stimulates metabolism, and increases collagen production. Additionally, shock wave therapy has a relaxing effect. All these factors reduce inflammation and pain.



HOW LONG DOES SHOCK WAVE THERAPY FOR TENNIS ELBOW LAST?

Depending on the treatment plan, therapy includes 4 to 8 sessions in a series. The pause between sessions should last from 5 to 10 days and gradually increase with each session.

7. SURGERY – WHAT DOES IT INVOLVE?

Unfortunately, sometimes the changes are already so advanced that conservative treatment does not bring any results, and surgical treatment is required. The procedure involves cutting off the attachment of the extensor muscle. After such an operation the hand should be immobilized for about 3 weeks and then undergo rehabilitation.

[High power laser therapy – detailed description](#)

[-Comparison of radial and focused shock wave therapy](#)

[-Direct current](#)

[-galvanization](#)

[- Comparison between TENS and EMS currents](#)

[-Microcurrents](#)

[-Kotz' current](#)