



Wimmer Orthopedics

Stem Cell Protocols

REGENERATIVE TREATMENTS FOR ORTHOPEDIC CONDITIONS

- Osteoarthritis
- Chronic tendinopathy
- Tendon tears
- Rotator cuff tears
- Meniscal tears
- Frozen shoulder
- Tennis Elbow
- Golfer's elbow
- Carpal tunnel syndrome
- Spinal stenosis pain
- Acute and chronic muscular pain in all spinal regions
- Neuropathy
- Iliotibial band syndrome
- Achilles tendinitis
- ...and many more

What is Wharton's Jelly? (Umbilical Stem Cell)

Wharton's jelly is a gelatinous connective tissue found in the umbilical cord that protects the umbilical vessels. It's made up of collagen, proteoglycans, and other substances.

- Mesenchymal stem cells (MSCs): These cells are primitive and can differentiate into other cell types.
- Growth factors, cytokines, and extracellular vesicles: These substances may reduce inflammation and pain, and help heal musculoskeletal injuries

What is an exosome?

Exosomes are extracellular vesicles ranging between 30-150 nm that are produced by virtually every cell type as a means of intercellular communication. They contain proteins (growth factors), mRNA (blueprint for protein production) and microRNA (on-off switch for specific protein production), all contained within a membrane similar to their parent cells that protects exosomal proteins and RNA from degradation until they are delivered to the target cell.

What is platelet rich plasma (PRP)?

Platelet-rich plasma (PRP) is defined as autologous blood with concentrations of platelets above baseline levels that contain many growth factors and anti-inflammatory properties. The blood used for platelet-rich plasma is drawn directly from the patient. The collected blood is placed in a special centrifuge to separate the platelets and to form the PRP concentrated substance. When the right concentration is achieved, the PRP substance is injected into the injured areas.

What is Focused Shockwave?

This non-invasive, medical procedure is capable of triggering cellular and molecular alterations that assist the regeneration of injured tissues. ESWT is mainly responsible for: pain relief, by acting directly on nerve fibers; tissue regeneration by stimulating vascularization; and reduction of calcium deposits in tissues. Numerous publications have proven the efficacy and safety of focused ESWT for the treatment of many musculoskeletal disorders, including osteoarthritis and different types of tendinopathies. ESWT should be considered in severe cases where conventional treatments prove to be of little success, especially in patients who prefer non-operative alternatives.

What is BPC-157 peptide?

BPC-157 works by increasing the mucosal lining of the gut, making it more resistant to injury. It enhances angiogenesis, leading to improved blood flow and faster healing of tissues. This peptide also influences growth factors and collagen production, which are vital for repairing ligaments and other connective tissues.

What is TB-500 peptide?

TB-500, also known as Thymosin Beta-4, is a synthetic version of a peptide naturally produced by the thymus gland. It plays a significant role in cell migration, wound healing, and muscle growth. TB-500 has been used extensively to aid recovery from muscle injuries and to promote overall wellness.

