

Newsletter

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Prolotherapy

prolotherapy.org

Prolotherapy is a simple, natural technique that stimulates the body to repair the painful area when the natural healing process needs a little assistance. That's all the body needs, the rest it can take care of on it's own. In most cases, commonly prescribed anti-inflammatory medications and more drastic measures like surgery and joint replacement may not help, and often hinder or even prevent the healing process. The basic mechanism of Prolotherapy is simple. A substance is injected into the affected ligaments or tendons, which leads to local inflammation. The localized inflammation triggers a wound healing cascade, resulting in the deposition of new collagen, the material that ligaments and tendons are made of. New collagen shrinks as it matures. The shrinking collagen tightens the ligament that was injected and makes it stronger. Prolotherapy has the potential of being 100 percent effective at eliminating and chronic pain due to ligament and tendon weakness, but depends upon the technique of the individual Prolotherapist. The most important aspect is injecting enough of the solution into the injured and weakened area. If this is done, the likelihood of success is excellent.

Prolotherapy involves the treatment of two specific kinds of tissue: tendons and ligaments. A tendon attaches a muscle to the bone and involves movement of the joint. A ligament connects two bones and is involved in the stability of the joint. A strain is defined as a stretched or injured tendon; a sprain, a stretched or injured ligament. Once these structures are injured, the immune system is stimulated to repair the injured area. Because ligaments and tendons generally have a poor blood supply, incomplete healing is common after injury. This incomplete healing results in these normally taut, strong bands of fibrous or connective tissue becoming relaxed and weak. The relaxed and inefficient ligament or tendon then becomes the source of chronic pain and weakness.

The greatest stresses to the ligaments and tendons are where they attach to the bone, the fibro-osseous junction. The most sensitive structures that produce pain are the periosteum (covering of the bone) and the ligaments. It is important to note that in the scale of pain sensitivity (which part of the body hurts more when injured), the periosteum ranks first, followed by ligaments, tendons, fascia (the connective tissue that surrounds muscle), and finally muscle. Cartilage contains no sensory nerve endings. If you are told that your cartilage is the cause of your pain, you have been misinformed; the cartilage cannot hurt because they contain no pain sensing nerves. If there is cartilage damage, the ligaments are typically the structures that hurt. Ligaments are weakest where they attach to bone. The periosteum is the most sensitive area to pain and the ligaments second. It is now easy to understand why this area hurts so much. This is where the Prolotherapy injections occur, and thus eliminate the chronic pain of many conditions including arthritis, mechanical low back pain, degenerative disc disease, cartilage injury, and sports injuries.

Prolotherapy works by exactly the same process that the human body naturally uses to stimulate the body's healing system, a process called inflammation. The technique involves the injection of a proliferant (a mild irritant solution) that causes an inflammatory response which "turns on" the healing process. The growth of new ligament and tendon tissue is then stimulated. The ligaments and tendons produced after Prolotherapy appear much the same as normal tissues, except that they are thicker,

stronger, and contain fibers of varying thickness, testifying to the new and ongoing creation of tissue. The ligament and tendon tissue which forms as a result of Prolotherapy is thicker and stronger than normal tissue, up to 40% stronger in some cases!