

What is Prolotherapy?

Prolotherapy is a simple, natural technique that stimulates the body to repair the painful area when the natural healing process needs a little assistance. 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 Prolotherapy doctor. 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 the 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.

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 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!