



Prolotherapy

Overview

The treatment is useful for many different types of musculoskeletal pain, including arthritis, back pain, neck pain, fibromyalgia, sports injuries, unresolved whiplash injuries, chronic tendonitis, partially torn tendons, ligaments and cartilage and sacroilitis.

What is prolotherapy?

First, it is important to understand what the word **prolotherapy** itself means. "Prolo" is short for *proliferation*, because the treatment causes the proliferation (growth, formation) of new ligament tissue in areas where it has become weak.

Ligaments are the structural "rubber bands" that hold *bones to bones* in joints. Ligaments can become weak or injured and may not heal back to their original strength or endurance. This is largely because the blood supply to ligaments is limited, and therefore healing is slow and not always complete. To further complicate this, ligaments also have many nerve endings and therefore the person will feel pain at the areas where the ligaments are damaged or loose.

Tendons are the name given to tissue which connects *muscles to bones*, and in the same manner tendons may also become injured, and cause pain.

Prolotherapy uses a *dextrose* (sugar water) and lidocaine solution, which is injected into the ligament or tendon where it attaches to the bone. This causes a localized inflammation in these weak areas which then *increases the blood supply* and flow of nutrients and stimulates the tissue to repair itself.

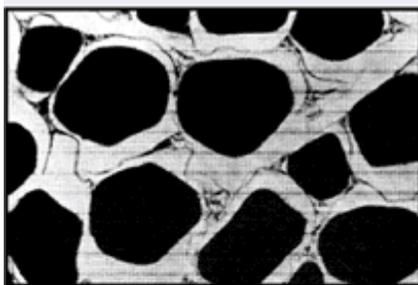
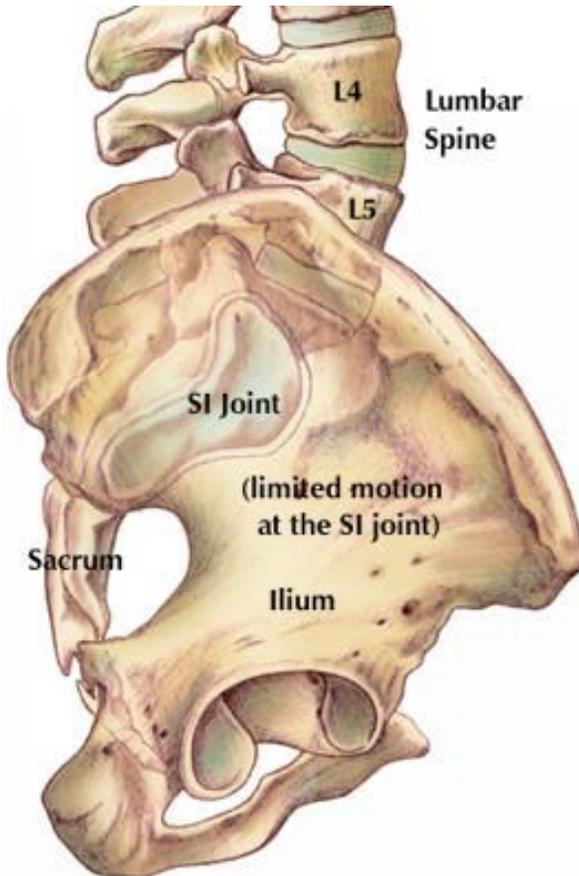
Historical review shows that a version of this technique was first used by Hippocrates on soldiers with dislocated, torn shoulder joints. He would stick a hot poker into the joint, and it would then miraculously heal normally. Of course, we don't use hot poker today, but the principle is similar—get the body to repair itself, an innate ability that the body has.

How long will it take to complete a course of treatments?

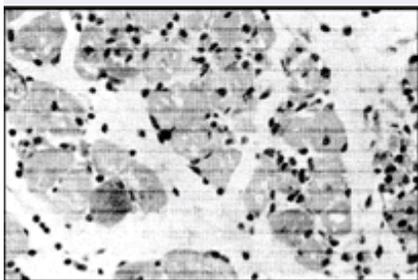
The response to treatment varies from individual to individual, and depends upon one's healing ability. Some people may only need a few treatments while others may need 10 or more. The average number of treatments is 4-6 for an area treated. The best thing to do is get an evaluation by a trained physician to see if you are an appropriate candidate. Once you begin treatment, your doctor can tell better how you are responding and give you an accurate estimate.

Contraindications

During the course of treatment you will need to avoid any anti-inflammatory medication, steroids, and NSAID's. Taking any of these medications will reverse the effect of the prolotherapy. Please feel free to discuss any questions with your physician.



NORMAL
MUSCLE
TISSUE



MUSCLE TISSUE 48
HOURS AFTER
PROLOTHERAPY:
Injections with 12.5%
Dextrose in 0.5%
Xylocaine.
Notice the massive
inflammatory reaction—
the basis of
Prolotherapy.