

# How Does it Work? Prolotherapy Injections for Back Pain Relief

Prolotherapy and PRP work on a very simple principle. Injecting a stimulating solution at the sites of pain, weakness and breakdown will stimulate the body's own healing mechanism! The body can repair and rebuild injured tissue. This repair process leads to a stronger and more supportive structure.

When injuries occur, the area may not heal completely due to poor blood supply or from lack of proper treatment. For this reason, ligaments, joints and tendons heal very slowly. If left untreated, damaged ligaments become loose, allowing bones in the joint to swing out of alignment and cause pain, muscle spasms, and eventually arthritis.

Arthritis development occurs in the joints and spine as a result of instability in the ligaments and the supporting structures. Through years of dysfunctional movement, the joints start to wear themselves out. This is where Prolotherapy and PRP can intervene and stabilize the structures, decreasing the progression of pain and aging.

When stretched, small nerve fibers in these damaged ligaments transmit pain impulses to the brain. Through a subconscious reflex, the surrounding muscles go into a tight and painful spasm in an attempt to stabilize the joint. This causes the region to feel tight, stiff, achy, burning, tingling, numb, fatigued, and painful. The individual will often notice painful knots within the impacted muscles. These muscles become tight and painful as they try to compensate for the weak and damaged underlying tissue structures. The spasms reduce blood flow, causing more pain. Not only are these symptoms felt locally, but they are often referred through nerve pathways into the legs and feet, arms and hands, and head (headaches).

In other words, pain felt in the head, arms, or legs may be due to instability in the neck or back. For example, weakness or injury to the ligaments in the neck may interfere with the sympathetic nervous system, causing a group of symptoms called Barre-Lieou Syndrome. This syndrome consists of one or more of the following: dizziness, visual blurring, loss of balance, ringing in the ears, runny nose, salivation, trouble swallowing, hoarse voice, nausea, vomiting, nervousness and headaches.

Treatment should be initiated as soon as possible, before the problem progresses. The most basic Prolotherapy solution contains a naturally occurring sugar (dextrose) combined with an anesthetic (lidocaine). Other

common, natural substances can also be used effectively. This solution does NOT contain cortisone, which is known to decrease inflammation but will also slow or stop the healing process. Acute pain may be relieved with cortisone, but repeated use causes a weakening of the tissues and chronic pain will develop. PRP uses Platelet Rich Plasma that is created from blood drawn from the patient. The blood is then put in a centrifuge machine that separates out the activated platelets, growth factors and the healing cells. Rich in healing cells and growth factors, the blood is then injected back into the areas needing repair.