

## **NEURAL PROLOTHERAPY (NPT)**

### **An Innovative Approach to Injury Treatment**

*Adapted with permission from John Lyftogt, MD: Founder of Technique*

Neural Prolotherapy is an effective minimally-invasive treatment option for patients suffering from injury and continuing joint, tendon, ligament, or muscle pain. The success rate of the treatment is greater than 75% for most conditions. Treatment involves a series of micro-injections with a glucose solution. A very fine needle is placed just under the skin, targeting the source of the pain.

#### **Is This Treatment For You?**

Have you sustained an injury? Do you suffer from nagging joint, tendon, ligament, or muscle pain? Have you had cortisone injections that don't reduce your pain? Contact our office to schedule an appointment with Dr. Richard Ramos to determine if this treatment is right for you.

#### **How Does It Work?**

Because neural Prolotherapy does not target tendons, ligaments or joints the question had to be asked what causes the sometimes dramatic decline in pain levels after even a few treatments. It is thought that glucose assists in the repair of connective tissue in the nerve trunks under the skin in a similar way to Classical Prolotherapy. The classic approach repairs connective tissue in ligaments and tendons. These skin nerves are known to be responsible for painful conditions generally identified as 'neuralgias' or 'peripheral neuropathic pain'. They consist of up to 80% of connective tissue and are structurally quite similar to tendons and ligaments.

There is now also compelling scientific evidence that the very small nerves innervating the nerve trunk, known as 'nervi nervorum' are responsible for inflammation of the connective tissue of the nerve trunk and surrounding tissues. Interestingly and surprisingly this fact has been known for over 125 years.

It is also known that this 'neurogenic inflammation' differs from conventional inflammation in that it does not respond to anti-inflammatories or cortisone injections. This is one of the reasons why these commonly used drugs are proving to be ineffective in many painful conditions. It is clear from clinical observations on more than 3000 patients and large case series that NPT effectively reverses 'neurogenic inflammation' and resolves neuralgia pain.

#### **Treatment Protocol**

Treatment typically involves a 6-8 sessions of micro-injections just under the skin with a very small needle. Each session last approximately 10 minutes in duration Additional treatment sessions are sometimes needed if a patient has prior surgeries, moderate to severe whiplash injuries with widespread pain, and/or significant underlying medical illnesses such as diabetes, autoimmune disorder or a history of cancer.

### **What to Expect After Treatment**

At most the patient may have some brief tenderness at the injection site or a small bruise. Physical activity is not restricted post-injection, with most patients returning to their usual workouts the same day or next day. More than 98% of patients tolerate the minimal discomfort associated with the injections without a problem.

### **About the Founder of NPT**

Neural Prolotherapy was developed by Dr. John Lyftogt of New Zealand. He has extensive postgraduate training and experience in sports medicine and musculoskeletal medicine. Dr. Lyftogt began practicing Prolotherapy 2003. He has been a full-time prolotherapist at the world-famous sports center for the Commonwealth Games <http://www.thecgf.com>

Dr. Lyftogt's early research focused on the treatment of Achilles tendon pathology and has published several articles related to his work. He has now treated more than 300 Achilles tendons with a success rate of more than 90. The technique he developed for the treatment of Achilles tendons differs from Classical Prolotherapy in that the injections are less invasive and are administered just under the skin while taking great care to avoid contact with the exquisitely sensitive tendon.

This 'neural Prolotherapy' protocol was successfully extended to the treatment of tennis elbow, painful knees, shoulders, neck, hips, ankles, muscle injuries, and low back. These positive outcomes are consistent with two year follow-up studies showing success rates between 80-100%.