PROLOThERAPy

What is prolotherapy?

Prolotherapy, or proliferation therapy, is the injection of a solution to stimulate the growth of new cells to heal painful areas. Ligaments and tendons are the most common sites for injection.

What do ligaments and tendons do?

Ligaments surround all our joints. They protect the joint by limiting its range of movement. They also have a large number of nerve endings, so that if they are stretched, they cause pain. This tells our body to change something to protect the joint from damage. Tendons join muscle to bone and help move the joints.

How are the ligaments and tendons injured?

Our ligaments become slacker with the passage of time and the stress on the ligaments from our daily activities. For instance, ankle laxity is common with recurrent ankle sprains. Pregnancy is the most common cause of sacroiliac ligament laxity. Ligaments can also be injured by trauma, such as car accident or falling. Tendons are typically injured from overuse, such as running and jumping.

Will I benefit from this treatment?

First, we have to find out if you are a candidate for treatment by prolotherapy. It is important that you see your doctor or physiotherapist for proper assessment. This often takes more than one visit to your physiotherapist. Patients with a history of injury consistent with ligament sprain that responds well to stabilization with bracing or taping generally respond well to prolotherapy. Injuries to the disc or nerves, such as disc herniation, nerve impingement or spinal stenosis are not good candidates.

What are the injections?

The injections consist of a mixture of a local anaesthetic and Dextrose. The Dextrose solution is a strong enough concentration to irritate the ligaments. This stimulates mild inflammation in the area, which is the first part of the healing process. The contents of the injection are very safe. The areas that I inject are also very safe. Ligaments only grow where they are attached to bone. I therefore have to feel the bone with the needle before injection, meaning that I know exactly where the injection is going.
Are there any risks?

The common risks when puncturing our skin, namely infection and bleeding, are very rare due to the small diameter of the needle.

It is possible to enter the spinal canal, but this is rare, as injections directly over the middle of the spine are no longer used. If this happens, it may result in an intense headache for 2 – 4 days when upright. Laying flat alleviates the headache.

The other risk of consequence is the possibility of puncturing a lung, when injecting the upper part of your back. This is rare.

A very small percentage of the population is allergic to local anaesthetic agents. If you think you are, please let me know.

An even smaller percentage of people are allergic to sugar, which is the source of medical Dextrose. Some people have expressed a concern about becoming too tight after the injections. This is not possible.

Is this painful?

The injections are uncomfortable, but the local anaesthetic removes the pain quickly. In spite of this, or if you are having many levels injected, you may feel unable to tolerate the pain. If so, we will discuss alternatives.

Most local patients are able to drive themselves to and from the treatment and are able to return to work afterwards. Out of town patients should have a driver for their first treatment so they are able to change position as needed for the long drive home.

Most patients will feel stiff for a day or two afterwards. Changing position regularly, gentle activity, stretching, and heat are all that is usually required. If you are too stiff, a muscle relaxant such as Robaxacet or pain medication such as Tylenol can be used. Please do not use anti-inflammatory painkillers for two weeks after prolotherapy (Ibuprofen, ASA, Celebrex, Naproxen, Diclofenac etc).

How many injections will I need?

Most men require three to six treatments. Women usually require six to nine treatments. Treatments can be done weekly to monthly. Biweekly treatment allows you to see physio in between each treatment. You can expect to see improvement from the injections one to two months after the last injection.
What follow up treatments are needed?

It is very important to see your physiotherapist two to seven days after prollotherapy. This is to check joint mobility and settle any muscle spasm. Physiotherapy is also important one to two months after the last injection when the ligaments are tightening. At that time you will get longer lasting relief from the IMS (intramuscular stimulation) and be ready to start increasing your stretching and strengthening program.

Other considerations

Stay as active as possible without aggravating your condition. Break up tasks that bother you into shorter pieces e.g. vacuum one room at a time instead of doing the whole house at once. Walking every day is usually safe. For those who cannot tolerate walking, aquasize is a good way to stay active without irritating your symptoms.

Sleep disturbance is common with chronic pain. Medications such as Flexeril or low dose Elavil at bedtime can help significantly. Watch for signs of depression such as mood changes, decreased energy, appetite changes, decreased memory and concentration, feelings of guilt or hopelessness, and suicidal thoughts. Discuss these symptoms with your doctor. Depression due to chronic pain responds well to antidepressants.

Anti-inflammatory medications will block some of the effect of prollotherapy and should be avoided for at least two weeks after your treatment. Tylenol, muscle relaxants and prescriptions for other health conditions can be continued.

Stress or other stimulants such as cold medications can cause muscle tightening. Try to avoid these or consider relaxation training for stress.

Appointments

To arrange appointments please have your referring health care provider (doctor or physiotherapist) send a letter of referral to our office. This letter should clearly state your name, address, daytime phone number, email, and whom the referral is from. My office will contact you with an appointment time.

Your first appointment will be a consultation. At that visit I will review your problem as related to me by your referring health care provider and yourself. I will examine you and discuss a treatment plan. Please give yourself time to reach my office. I try to keep my appointment schedule as tight as possible so that people are not kept waiting.

It is very helpful if you can pick-up copies of any X-ray, MRI, CT Scan, or bone scan reports and bring these to the first appointment.
If you are late, *we may not be able to fit you in, regardless of the distance you have traveled.* There is a fee for not attending your scheduled appointment, or cancellation with less than 24 hrs prior notice.

**What should I wear and bring with me?**

You should wear loose fitting clothing that allows easy access to your whole spine, or other joints as indicated. This will also be more comfortable afterwards. Expensive (white) shirts or blouses are not a good idea as there is often some pinpoint bleeding after the injections, which could stain your clothes.

**Is there any cost?**

At present Medical Service Plan does not cover the cost of prolotherapy. Please ask your physiotherapist about the current fee or contact my office. The fee varies depending on the number of areas treated. The fee will cover the cost of the procedure and materials used. Some insurance companies will reimburse you, so save your receipt. Payment must be made at the beginning of each office visit. Debit or credit cards are accepted. We do not direct bill your insurance company, so you must make the payment and receive reimbursement from your insurance company. WCB does not pay for prolotherapy. If your payments have not been made or discussed with my office, we will not be able to book any further appointments for you.

In summary, prolotherapy is a relatively safe procedure that will help to strengthen slack ligaments or degenerative tendons. Proper assessment and follow-up by your physiotherapist or family doctor is very important. With proper selection and rehabilitation patients should respond well to treatment 80% of the time. Please read this information very carefully as it is important that you understand our process. I hope that we are able to offer you some help with your problem. Thank you for visiting our clinic.
CONSENT FORM

I have been advised and consulted about the injection techniques of Prolotherapy.

I have been advised that Prolotherapy is an established technique for tightening of ligaments or degenerative tendons. The technique requires the injection of local anesthetic (Lidocaine), concentrated dextrose (sugar) plus, on occasion, Phenol, Glycerin or Sodium Morrhuate (highly refined cod liver oil) into the ligament. The site of the injection is where the ligaments attach to the bone or into the tendon.

I have been informed that the procedure has been used on thousands of patients and has proven generally safe. This procedure may alter and decrease my pain complaints, but may not completely eradicate them.

INFORMED CONSENT

I have been informed that the alternatives to Prolotherapy are:

1. Doing nothing.
2. Surgical intervention may be a possibility.
3. Injections with steroid may also be helpful but not give lasting results.
4. Maintenance therapy with physiotherapy, massage, or manipulation.

I have been informed that the risks and complications of Prolotherapy are:

1. Immediate pain at the injection site.
2. Allergic reaction to the anesthetic.
4. Pneumothorax-air on the outside of the lung.
5. Infection at the injection site.
6. Injury to the nerves and muscles at the injection site.
7. Temporary or permanent nerve paralysis.
8. There may be no effect from the treatment.

I have been informed that the risks of No Prolotherapy are:

1. No relief of the pain.
2. Continued degeneration of the joints adjacent to ligament laxity.

Date: _____________________________

__________________________________ ____________________________
Signature of Patient/Guardian Witness

Dr Hooper What is Prolotherapy 4/25/2011