

Prolotherapy

What is prolotherapy?

- Prolotherapy is an alternative method to address a variety of painful conditions. It involves a series of injections into fibrous soft tissues such as tendons and ligaments at the point where these tissues attach onto bone. Injections can also be done into joints and intervertebral discs.
- Prolotherapy promotes healing of damaged tissues by initiating an inflammatory response at the injection sites. Being the first step in the healing cascade, inflammation is necessary for healing to occur. Prolotherapy is an attempt to get the process started; to stimulate proliferation of tissues necessary for repair. Ligaments and tendons increase in size and strength. As the healing process continues, these tissues gradually contract, eventually tightening the joints. The end result is better joint mechanics, less joint and muscle irritation, and ultimately less pain.

What is in the prolotherapy solution?

- The typical solution can contain any of the following:
 - lidocaine or procaine (local anesthetic/numbing solution)
 - dextrose (a type of sugar)
 - sodium morrhuate (extract of cod liver oil)
 - vitamins (B12) and hormones (testosterone)
 - phenol (an alcohol) and glycerin
- The exact composition of the solution to be used for your injections will be determined and formulated by the doctor at the time of the injections. Different solutions may be used during the same visit, depending on what is being treated. The exact formula depends on the type of problem being treated and your response to previous injections.
- Prolotherapy does not involve injections of cortisone. Cortisone has an effect that is opposite to that of prolotherapy – it suppresses inflammation. Cortisone injections can lead to tissue atrophy and may accelerate joint degeneration, particularly if they are done into the same locations frequently and/or on multiple occasions.
- Cortisone, typically used in combination with an anesthetic agent, may be injected into muscles, tendons, or ligaments (trigger point injections), along nerves (nerve blocks), or into joints (joint injections) when inflammation and swelling is suspected to be contributing to the cause of the pain. These injections can also be done at the time you are undergoing prolotherapy, again depending on the problem being treated.

How many injections will I need?

- Prolotherapy usually involves multiple sets of injections, done in series. Each set involves anywhere from several to upwards of 20-30 separate injections, depending on the area being treated. The injections are usually spaced 2-4 weeks apart. Anywhere from 2-10 or more sets of injections may be necessary depending on the complexity and chronicity of the problem. In general, the injections are done in conjunction with physical therapy and a home exercise program.
- If you decide to try prolotherapy, you should commit to at least 3 series of injections. The reason being that your condition may take this many treatments to respond. You should not assume that prolo will not work if you do not see benefits after one or two treatments. Prolotherapy has a cumulative effect; each treatment builds on the previous one to increase tissue strength and improve joint stability. Over time this will lead to the desired effect of pain relief.
- If you do not experience a significant improvement in your symptoms after 3 treatments, chances are you will not respond to prolotherapy and so additional treatments are usually not recommended. In some cases because of nutritional, metabolic, or hormonal abnormalities, your body may not be able to mount an adequate healing response. Under these circumstances, tests may be ordered to determine whether a correctable abnormality exists. Once this problem is addressed prolotherapy may be resumed.
- Treatment should continue as long as you demonstrate continued benefit from the intervention. Once a plateau in improvement is reached, treatment should stop.
- Although prolotherapy can permanently cure certain painful conditions, some individuals will experience a recurrence of their symptoms after completing the treatments. In such cases 1 or 2 “tune-up” treatments may be necessary each year, particularly with the more severe and chronic conditions.
- How will I feel after the prolo treatment?
- Stiffness, soreness, and swelling are common. We recommend stretching and walking immediately after the treatment to minimize these undesirable, inflammation-related side effects.
- You may take acetaminophen (Tylenol), but should avoid any other over-the-counter pain medication such as aspirin, Aleve, Motrin/ibuprofen. Other prescription anti-inflammatory medications such as Celebrex, Vioxx, Lodine, Naprosyn, etc. should be discontinued prior to your first set of injections. They should be avoided for at least 2 weeks after your injections. The reason being that these medications suppress inflammation. This in turn affects the body’s healing response. Your doctor may prescribe a pain medication to take after the injections if he feels it will aid your recovery.

What should I avoid while undergoing prolotherapy?

- Avoid “overdoing it.” Patients sometimes feel so much better after their treatments that they undertake tasks and resume activities for which they are not ready. This usually gets them into trouble. Although you may experience less pain, muscles are still weak and deconditioned. Furthermore, tissues are not completely healed. Resumption of any activity should be done very gradually – preferably under a physical therapist’s supervision.
- Anti-inflammatory medications. Remember, prolotherapy relies on inflammation to trigger the healing cascade.
- Do not apply ice to the treated area unless absolutely necessary. Ice also decreases inflammation, which in turn hinders the healing process. In some instances, however, ice may be recommended by your doctor to help relieve some of the superficial pain and swelling.
- Avoid remaining sedentary. Activity, particularly walking and gentle stretching improves circulation and gets the blood flowing. This is also necessary for proper healing to occur.
- Avoid high-velocity chiropractic adjustments. If you feel you need an adjustment, discuss this with your physical therapist or physician. We prefer to avoid having “too many cooks in the kitchen.”

What about my “habits”?

(Not really a common question, but something that should be considered none-the-less).

- Since we are working to improve your body’s ability to heal, steps must be taken to ensure that an optimal healing environment is created in your body.
- Increase your water intake to at least one-half gallon (6-8 glasses) a day. Improving hydration of your body’s tissues helps increase the cushioning effect of intervertebral discs and cartilage. Also, water helps flush out toxins. Purified water is recommended.
- Improving your diet and use of supplements is advised. Increase your intake of fresh vegetables and fruits, fish, lean meat/poultry, eggs, whole grains, nuts, and flaxseed. A multivitamin, MSM, glucosamine, chondroitin, and fish oil capsules (omega 3 fatty acids) are also highly recommended.
- Do not eat processed foods, especially those containing artificial sweeteners or coloring. Your body is not designed to digest these substances. Avoid sugar and junk food since these “foods” seem to impair the healing process.
- Caffeine intake should be limited to 1 or 2 cups of coffee or 1 or 2 soft drinks per day. If possible, it should be eliminated altogether.
- Most importantly, you must stop smoking. In many studies, smoking has been shown to impair the healing process and accelerate aging. Smoking pollutes your body by introducing chemicals, toxins, and free radicals into each and every tissue (lungs, heart, skin, joints, tendons, ligaments). It also deprives your body of precious oxygen which every cell in your body needs to survive. Oxygen demands are higher when metabolic activity such as healing increases.

Will my insurance pay for prolotherapy?

- No. In most cases the standard policy of almost every insurance company is that prolotherapy is not a covered service. Most insurance companies consider prolotherapy an investigative or experimental treatment. They do not feel it is a proven treatment despite studies that have demonstrated the contrary.
- The Health Care Financing Administration (HCFA), the federal body that determines coverage policies for Medicare and Medicaid ruled on 9/27/99 that prolotherapy is a non-covered service (file CAG-00045). Therefore, Medicare and Medicaid do not pay for prolotherapy.
- As of 1/1/03 Ohio Rehab Center's policy is that we will no longer be billing insurance companies for prolotherapy. Unfortunately, the burden of paying for the treatment now rests on the patient. A fee schedule for the treatment of various areas is available.
- If you are unable to pay for the service in one lump sum, we will work with you to establish a payment plan.
- Where can I learn more about prolotherapy?
- Contact the American Association of Orthopedic Medicine (AAOM) at 800-992-2063.
- Check out the Internet web sites
 - www.aaomed.org
 - BLC@getprolo.com
 - Prolotherapy.com



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