1) Is Prolotherapy painful?

The injection is considered mild to moderately painful, and there is typically a "flare" of soreness for 3-7 days afterwards. A mild pain medication, such as Ultram or Tylenol, is usually sufficient to control the discomfort. The doctor can prescribe stronger medication if needed.

2) Are there any medication interactions?

Because the effect of Prolotherapy is to initiate a "healing cascade" which requires inflammation, the patient is advised to avoid anti-inflammatory medications, both over-the-counter and prescription. Aspirin may also interfere with the process to some degree, but if an individual is taking Aspirin to reduce risk of stroke or heart attack, a small amount of Aspirin, such as a "Baby Aspirin" (80 mg) is acceptable. The results of Prolotherapy while taking these medications may be slower and less consistent than if the patient avoids these medications.

3) Is Prolotherapy safe?

Using the current solutions and techniques, there have been no reported significant side effects of this treatment in over 35 years. There is occasionally some bruising, and very rarely, a nerve may be injured, usually transiently. The procedure has been used for over 60 years. In the late 1950's, some solutions were used which were much more potent and placed inappropriately into the spine region, and this led to nerve injury and even a lethal reaction. Those who currently practice Prolotherapy strive to keep the technique safe by providing educational seminars emphasizing correct technique and solutions.

4) How does "sugar water" have a chance of solving the painful condition?

The Dextrose is actually quite irritating in the standard 50% concentration. This is then diluted with water, anesthetic such as Lidocaine, or Sarapin, a water-based herbal extract of the Pitcher Plant, to a concentration of 12-15%. This is thought to "dehydrate" the injected tissues, causing an injury signal for the body, and initiating the healing process. Dextrose has been shown to be a growth stimulant on it's own as well.

5) What tissues of the body are treated by Prolotherapy?

The ligaments, which connect bones together, may be stretched and torn. Tendons attach muscles to bone and may also be torn. The capsule surrounding joints may become lax (loose) and also contribute to pain. All of these may be strengthened and "tightened" with Prolotherapy, reducing the "play" in the joints, reducing arthritis, and bonding the clicking or popping structures in a way that is much more functional and normal. Cartilage has been shown to be repaired and thickened after a series of Prolotherapy injections.
6) Are back and neck pain always resolved with Prolotherapy?

No. Prolotherapy is an excellent treatment for many spine disorders, and can reduce pain and improve function in a great many cases which conventional physicians might consider "psychological", or at least not evident on imaging tests such as MRI or CT scans. The general public often expects these tests to be infallible, but the truth is that these tests often miss the true source of pain in the spine and pelvis. The structures which Prolotherapy treats almost never are visualized on such types of testing, unfortunately, and this is confusing for the patient as well as the physician who doesn't understand ligamentous pain. Pain from ligaments frequently is "referred", that is, travels down the arm, buttock, or leg, much in the same way that pain can refer from a "nerve pinch." If one is unaware of these patterns, it is not surprising that the true cause of the pain remains an enigma. Some conditions are better treated with epidural steroid injections, physical therapy, chiropractic, or surgery. However, it is clear that prolonged treatment with any of the above, if not resulting in clear progress, may be futile and that an alternative should be sought. If you are told that the "pain is in your head", and you can put your finger on it, you should see a Prolotherapy specialist.

7) Do you treat muscle pain with Prolotherapy?

It is not appropriate with Prolotherapy to inject the muscle bellies themselves, as one might have experienced with "trigger point" injections. However, used to strengthen the attachments of these same muscles where their tendons connect to the bones, this type of pain is very treatable with much more permanent results. Myofascial pain is frequently cured with this approach, unlike the traditional and well-known practice of massage, trigger point injection, spray and stretch, and similar techniques. When these techniques do not provide resolution of pain within 3-4 months, the patient should strongly consider the more permanent and cost-effective technique of Prolotherapy.

8) Does Prolotherapy involve steroid injections?

Not usually. Occasionally, the physician may try a steroid injection first, as this is a mainstream, accepted approach for these types of injuries. If this is not curative with 1-2 efforts, then repeat steroid injections are unlikely to resolve the problem and Prolotherapy is a safer, more permanent solution. Steroid injections are well known to have complications, usually mild but occasionally significant, and repeating them unnecessarily increases the risk. Each steroid injection weakens the underlying connective tissue, and may result in a need for additional Prolotherapy injections to regain any lost ground from steroid injections. Even if a steroid injection provides temporary benefit, which is usual for 3 days to 2-3 weeks, the typical recurrence of pain when the steroid "wears off" often occurs.

9) Are headaches treatable with Prolotherapy?

Definitely, with a typical 80% or better success rate. The muscular attachments of the neck muscles on the base of the skull frequently become torn from injury, and can lead to dizziness, nausea, headaches, eye and ear pain, TMJ pain, and facial pain. These attachments are strengthened with Prolotherapy, and the pain and
symptoms resolve accordingly. If you experience frequent headaches, even if you are told you have "migraine" headaches, or "post-concussive headache" from head injury, you should consider seeing a specialist in Prolotherapy.

10) How does Prolotherapy treat TMJ and other joint problems?

It is interesting to note that Prolotherapy (then called Sclerosing Therapy) was the treatment of choice for TMJ dysfunction 60-80 years ago. It was actually fairly successful and still is. With the advent of surgical approaches, many of which have been discontinued because of poor outcome, many oral surgeons are no longer educated in the technique. Prolotherapy is a safe, conservative, and cost-effective TMJ treatment, resulting in reduced joint popping and clicking, improved gliding, and improved opening of the jaw, because of the greater stability and reduced "play" in the joint. It works similarly on many other joints of the body, including knees, hips, and hand and wrist joints.

11) Does Prolotherapy treat foot and ankle pain?

Many foot and ankle problems are treated and resolved with Prolotherapy. The most common and notable are Plantar Fasciitis, Morton's Neuroma, bunions, and chronic ankle sprains. Each of these involves stretching of ligaments and joint capsules, which respond quite well to Prolotherapy. If steroid injections do not provide long-term relief for these, you should strongly consider Prolotherapy. You certainly can bypass steroid injections and surgery; treatment with Prolotherapy can and usually does achieve a great deal of success.

12) How can I test myself to see if Prolotherapy could help me?

The signature finding is pain that you can put a finger on. This may be at the top of the neck or base of the skull for headache pain, the top of the shoulder, the inner or outer elbow, the sides of the knee, or the groove between the inner edge of your hip bone and your tailbone (the Sacroiliac joint), or a number of other common places where these tissue injuries occur. If you can precisely point to your source of pain, there is an excellent chance that Prolotherapy will resolve or at least greatly improve it.

13) Shouldn't I be skeptical of such a weird idea that few doctors know about?

Of course, I certainly was! I knew about this technique for over 8 years, read about it carefully for 4 years, learned how to perform it, and still didn't use it except on my worst patients who had tried all options for their pain. I certainly didn't tell my referring doctors at first that I was using Prolotherapy, for fear that I would be "too alternative." I remained skeptical for the first 6 months of using this technique, until my patients' success became difficult to ignore. I now use Prolotherapy as one of my many tools that I have available to treat my patients, and over time it has become one of my primary tools because of the vast array of problems solvable with this technique. Be skeptical, but be open-minded; you have almost nothing to lose and a great deal to gain.

14) So Prolotherapy is a cure for everything?
Of course not. Many diseases and illnesses are not resolvable with Prolotherapy. Pain can originate in many tissues, and a complete, thorough examination is absolutely essential. The physician who practices Prolotherapy is usually one who has a great deal of experience with the treatment of musculoskeletal disorders, and should also examine and test the patient for other causes of pain using appropriate studies, lab tests and other manner of testing to ensure that your condition is correctly managed. At times, consultation with a surgical specialist, a gynecology specialist, a gastrointestinal specialist, etc. may be necessary to ensure that your evaluation is complete.

15) Will Prolotherapy improve my loose joints?

Prolotherapy has been shown to increase the ligaments around joints by approximately **30-40% in strength and mass**. This can remarkably improve torn ankle, knee, and other ligaments. Even if there is minimal pain with some of these injuries, the weakness can ultimately tear further and create greater dysfunction. Many athletes utilize Prolotherapy to strengthen their weak ligamentous tissues to reduce future risk of tears and injury. Prolotherapy is the only clinically proven method of regenerating and repairing torn cartilage inside joints.

16) Does Prolotherapy treat Fibromyalgia?

A well-done study in the literature showed that approximately two-thirds of Fibromyalgia patients treated with Prolotherapy 1 year later stated that it was the best treatment that they had ever received for their pain. Fibromyalgia is a complex, painful syndrome that is poorly understood. Patients usually note sleep deficit, fatigue, depression, anxiety, bowel problems, and diffuse pain, along with other concerns. The cause is not yet known, and it is likely that there are a number of different causes that produce a patient with the symptoms and signs of Fibromyalgia. There is evidence suggesting poor healing, and one theory is that small "micro-injuries" of the fibrous tissues simply never heal satisfactorily, possibly because of an as yet undiagnosed hormonal deficit, such as Growth Hormone, Testosterone, Estrogen, Progesterone, Thyroid, or adrenal gland. Although Prolotherapy may not treat the underlying cause of Fibromyalgia, the tender points of this syndrome are frequently improved.

17) How many visits are necessary, and how frequent are they scheduled?

Most conditions are treated with 4-8 visits, but may take more. The timing of visits varies from weekly to every 4-6 weeks or more. Rarely, 10-15 visits may be required as long as progress is being made.

18) How long does it take to know if I will be improved or cured with Prolotherapy?

Patients occasionally experience a great deal of relief after their first injection; most, however, note improvement after 3-4 injections, with the duration of treatment then determined by the rate of progress. Studies suggest a success rate ("greater than 50% improvement in pain level") of 80-90%.

19) Is Prolotherapy expensive?
Compared to many treatments that are much less permanent and carry greater risk, it is **very cost-effective**. A typical treatment costs $125-500, depending on the number of body regions and time involved. The total cost of a course of treatment may easily be less than the cost of an MRI scan and a series of X-Rays. Insurance companies, in general, including Medicare, are slow to realize the tremendous gain in cost-effectiveness that Prolotherapy offers them. Many practitioners of Prolotherapy thus must charge their patients on a cash / fee-for-service basis, until the insurers understand the obvious benefits and cover the treatment in time.

**20) Are there any activity restrictions following the injection?**

Most practitioners recommend careful resumption of activity as tolerated. This can include normal exercise routines, walking, sports, and other activities. Physical therapy, massage, chiropractic and other treatment does not usually need to be stopped and may in fact assist with the overall process.

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