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## PROLOTHERAPY

**Prolotherapy** is also known as “proliferation therapy,” “regenerative injection therapy,” or “proliferative injection therapy.” It involves injecting a “nondestructive pro-inflammatory” solution into the body, generally in the region of tendons or joints or ligaments for the purpose of strengthening weakened or damaged connective tissues or joint surfaces, and therefore, hopefully alleviating musculoskeletal pain. Once strengthened, theoretically the weak areas would no longer send pain signals.

**History:** A form of prolotherapy use actually began in the 1930s and was originally used in the treatment of ligamentous laxity. It has slowly evolved in its use and the type and the number of range at specific applications ever since.

**Prolotherapy in Clinical Practice:** Hyperosmolar dextrose (a sugar) is the solution most commonly used; though Serapin, Traumeel, glycerine, Zeel, lidocaine (a commonly used local anesthetic), phenol, and sodium morrhuate, a derivative of cod liver oil, are other less commonly used agents.

Prolotherapy treatment sessions are generally given every 2-3 weeks for several months until treatments are rarely required, if at all. We stop at 6 unless there is no benefit after 3 or complete pain relief prior to 6. While we expect about 80% success rates, we find only about a 25% success rate if there is **no** improvement after 3 injections, so we often stop then.

**Possible Indications for Prolotherapy:** Indications for prolotherapy may include one or more of the following:

- Osteoarthritis (most commonly knee).
- Trochanteric bursitis.
- Achilles tendinopathy.
- Sacroiliac joint dysfunction.
- Lateral epicondylitis.
- Plantar fasciitis.
- Certain kinds of low back pain.

This is not a “masking therapy; it is “healing.” The healing is essentially permanent, as long as a repeat injury or inflammatory process does not occur.

**Side Effects and Adverse Events:** Patients receiving prolotherapy injections have reported generally mild side effects including: Pain at the injection site (often just within 72 hours of the injection), numbness at the injection site, or mild bleeding and bruising. Pain from prolotherapy injections is temporary and is often treated with acetaminophen or in rare cases opioid medications. **Because the inflammation produced is imperative for the healing process, it is very important that the patient does not use any anti-inflammatory medications 3 days prior to starting Prolotherapy and 1 week following.**

**Drawbacks:** While Veteran Affairs and workman’s compensation now cover prolotherapy, major medical insurance policies and Medicare do not currently cover the drug that is injected. They do, however, cover the office visit and the injection technique. Our charge for the hypertonic medical grade sterile dextrose solution is \$50.00 per injection visit.