

Prolotherapy, or "proliferative injection therapy" involves injecting an irritant solution (typically concentrated sugar, fish oil or dilute phenol) into specific areas of the body, generally at the insertion points of tendons and ligament, for the purpose of strengthening weakened connective tissue. By strengthening the weakened connective tissue, musculoskeletal pain is often relieved.

### **What to do before the injections**

1. Avoid ibuprofen, naproxen sodium, etc. (NSAIDS) for 3 days before injections. If taking rofecoxib (Vioxx), celecoxib (Celebrex), valdecoxib (Bextra), SAM-E, Red Deer Velvet these must be stopped 5-7 days before injections.
2. Supplements in addition to eating a balanced diet are very important for optimal response to injection work. We recommend:
  1. Vitamin C 1000 mg twice per day for 48 hours before and 14 days after treatment.
  2. Zinc 30 mg per day for 3 days before and 2 weeks after injections. Change dose to every other day should a metallic taste develop or stop it entirely if side effects occur that are intolerable for either.
3. Some patients prefer to take preventive pain medications or antianxiety medications before injections. Discuss this with your doctor before injections or with your referring doctor if you are scheduled to have injections on your first visit. The medications below, should they be recommended to you by the doctor, are to be taken one hour before your procedure.
  1. Dextromethorphan can be taken (one tablespoon of Robitussin DM) to block pain receptors (NMDA) spinally.
  2. Antianxiety medications such as diazepam (Valium) or lorazepam (Ativan) can be used at the same time as the dextromethorphan. These medications require a prescription. Alternatives to this are available as well.
  3. Pain medications (non-NSAIDs, see #1) can be used as well 1 hour preinjection.
  4. Do not drive if premedicating for injections as you will be operating under the influence (oui, dwi or dui).
4. Bring pain medications (non-NSAID) with you so post-injection pain management can be clarified.
5. If premedicating a driver is a must, but many patients prefer having someone drive them home after injections so we suggest you consider having a driver other than yourself.
6. If you have a long ride home (greater than 30 minutes), bring an ice pack and consider frequent stops on the way home to maintain flexibility and reduce swelling/pain.
7. If you have a heart murmur, heart valve, heart valve disease, an artificial hip or knee (or internal prosthetic of any kind) alert your doctor as this could make you a candidate for premedication with antibiotics.
8. Smoking cessation (quitting) permanently and at once is strongly recommended as smoking decreases the effectiveness of the injection healing, potentially increases the number of injections and could make the entire procedure unsuccessful.

### **What to do after injections**

1. Pain is normal typically expected after injections, especially the first 2-4 days due to the inflammatory response generated by the injections that stimulate the initial healing process.
2. Avoid NSAIDS 7 days, as this will block the inflammation and subsequent healing process making the injections ineffective.
3. Continue Vitamin C and Zinc as above for 2 weeks.
4. Use pain medications as directed. If none given, over the counter acetaminophen (up to 3,500 mg per day) is acceptable. Call if problems or concerns. Lost opiate prescriptions will not be replaced.
5. Return to routine exercise, but do not initiate new exercise if not currently working out regularly. We strongly recommend you walk and return to normal activity as soon as possible to encourage good range of motion and to minimize swelling.
6. Ice is acceptable over injection area, but avoid heat for the first 3 days.
7. We advise not accessing public water sources (lakes, hot tubs, pools) for first 2 days. This is to avoid infection from these sources.

8. Call if redness/problems occur.
9. Please remember that swelling (and pain, see #1) are common, anticipated and normal...injections. This especially occurs in areas further from the heart such as the arms (elbows, wrists, fingers), legs (knees, ankles, toes) or other joints after injections. Removing finger and toe rings or other jewelery on the same side as the extremity to be injected is strongly recommended.