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Regenerative Injection Therapy (RIT) Post Care: Prolotherapy and PRP

It is normal and expected to have an aggravation of pain and perhaps swelling (sometimes a lot) and discomfort in the area post treatment. In most persons these aggravations last for only a day or two, but on occasion may continue on for longer. Occasionally aggravations may continue for a week or longer and much swelling, pain or stiffness may occur, this does not mean anything bad has occurred and should not discourage you from completing a course of treatment.

Dextrose Prolotherapy Reactions: Please remember that each prolotherapy treatment takes 6-8 weeks to maximize its regeneration of ligament and tendon tissue. Vitamin B12 is usually used in the prolo solution with dextrose and procaine. It is not uncommon for patients to observe pink coloured urine after treatment. This is normal B12 excretion, it is **not** blood, so there is no need to worry.

PRP regeneration injection Reactions: there is often a 2nd aggravation 2 weeks after, due to the migration of stem cells to the area. There have been rare cases of PRP aggravations going on for many weeks, but with ultimately positive outcomes. Recent research indicates that PRP may take up to 6 months to complete a regeneration cycle.

Although it may sound counter-intuitive, it is still indicated to continue treatment, even if a joint is feeling aggravation. Often enough, the following treatments can begin to calm the previous reactions. Please do not give up on following through with a treatment plan, because you are feeling worse in the short term, speak with me first.

In either case it is important to keep in mind that it still takes time for weakened areas to return to optimal function after injury. Even once regeneration has occurred, proprioceptive changes in function, muscle strengthening and body de-compensation are still occurring.

The final benefits of Regenerative Injection Therapies may take months. Often some persons feel a relatively quick relief of symptoms after an initial treatment albeit short lived. Although this is a good indication that the treatment was applied in the correct spots, it is not a reflection of a correction of the underlying weaknesses. Quick symptom relief is the result of a different process and does not indicate recovery. It is not uncommon for someone to feel great relief after the first treatment and then to experience a prolonged aggravation after the second. The short term belief may be that you are improving and the second treatment made things worse. This is not the case. The regeneration of damaged ligaments, tendons and joints takes time, and the subjective experience of relief and worsening of pain are not reflective of improvement or worsening of the condition. You will most likely experience great swings in symptoms, feeling better, then worse and up and down. Again this is a normal part of the

regenerative process, it is the long term healing over months that is the goal and object of this therapy. Even if you feel significant relief, early in the process, don't overdo your activity, you may aggravate the situation. If you do feel any concern about this, do not hesitate to contact me .

Use of Medication and Supplements:

- **NO anti-inflammatory medicines before or after injections** minimum of 5 days prior and none during the course of treatment.
- Stop taking fish oil for 5 days before and 7 days after injections

If the pain is disturbing enough to interrupt your sleep or function and you wish to take medication, any drugs that are anti-inflammatory (NSAIDS) are contra-indicated and can interfere with the healing process initiated by the prolo injections.

Drugs which should not be used before or during a course of Prolotherapy treatment.

If you have pain **do not take** any of these or similar medications:

- **Acetylsalicylic Acid (ASA):** Includes: Aspirin, Anacin, Ascriptin, Bayer, Bufferin, Excedrin, Percodan
- **Propionic acid derivatives :**
Ibuprofen: Advil, Motrin, Motrin IB, Naproxen etc.
- **Acetic acid derivatives:** Indomethacin (Indocin), diclofenac (Voltaren) etc.
- **Selective COX-2 inhibitors (Coxibs) :** Celebrex Celecoxib etc.
- **Topical Creams:** many over the counter topical pain creams and gels contain these same drugs to avoid. Read the label carefully and if unsure check with the pharmacist about whether the ingredients have anti-inflammatory drugs.
- **Corticosteroids:** hydrocortisone, prednisone, cortisone injections, etc.

If you are uncertain if your medication is an anti-inflammatory, check with your pharmacist, prescribing physician or call the office.

Drugs which can be used, and will decrease pain but are not NSAIDS;

These will not interfere with the prolotherapy healing response:

- **acetaminophen** Paracetamol; Tylenol
- **topical creams:** lidocaine containing creams without NSAIDS, traumeel
- **prescription medication :**
 - Tylenol 3, with codeine
 - Opioid and synthetic opioids include: Demerol, Lorcet, Vicodin, Norco, Lortab, Percocet, , Oxycontin 40, RMS MS Contin (morphine sulfate)

Prescription medications may have a place in the short term relief of symptoms, if you choose. Some patients choose to take painkillers just before prolotherapy to reduce the pain from the treatment. More anxious patients have been known to make use of anti-anxiety medication such as valium, Lorazepam (ativan), clonazepam etc.

Naturopathic Supplementation and Supportive Treatment

- Use of ice is not recommended although heat for comfort may be used 24 hours after injection.
- If hormonal or vitamin deficiency is suspected, treatment may be initiated to optimize hormonal/vitamin levels to maximize healing potential..
- Do not take fish oils or anti-inflammatory enzymes 5 days prior or 1 week after injections.
- Although natural remedies do not have the same potency for short term pain relief, they will in the longer term be helpful for the tissue healing. It is advised to take supplementations of MSM, Glucosamine Sulphate, Vitamins with lots of Bs, as well as Vit. K, D and C. do not seem to interfere with the prolotherapy healing response. A good all round support product is the **Joint FX**, available in the IHA dispensary. But again, don't use it 5days prior or 1 week post injection.
- natural anti-inflammatories such as Bromelain, Curcumin, proteolytic enzymes quercetin and fish oils are helpful in the long run, but should be avoided 5 days prior to and 1 week post any regeneration injection treatment.
- Many patients find the use of **Traumeel or Agil** homeopathic cream to be effective. Also consider hot Epsom salt baths, and heat to the affected area may reduce discomfort.

Nutritional Advice During Treatment

- **Protein:** Eat a high protein diet, preferably small portions 5 times a day. The body can't store protein, and muscle and ligaments are made of protein!!! Beef/beefalo, bison, turkey, eggs, chicken, or fish. Dairy and soy are OK. Vegetarians must make a special effort, and several types of protein powders are available in our dispensary. There are rice, whey and soy protein powders. For vegetarians, those with poor eating habits, or those who can't manage to eat protein frequently (or enough), use amino acids capsules, 2-3times/ day. Strongly consider eating high protein bars as snacks and make use of protein powder shakes
- **Avoid all trans fats!!** These are toxic/poisonous to the cells of your body, and impede healing. They are in virtually all commercial baked goods, and most processed and fast foods.
- Take a high potency multivitamin/mineral preparation. It's important to get adequate amounts of B vitamins, C, D, E, calcium, magnesium, zinc, chromium, selenium, and manganese. Recommended supplements are Health Matrix for multi-vitamins and minerals plus powder for minerals.
- A good all round joint and ligament support product is the **Joint FX**, available in the IHA dispensary. But again, don't use it 5days prior or 1 week post injection.
- take about 2-5 grams of purified fish oils per day, but avoid 5 days pre and 1 week post injection.
- Make sure you are getting 2000-5000 I.U. Vitamin D3 / day.
- If you are on cholesterol lowering drugs (statins), it is essential to take Co-Enzyme Q10 30-100mg twice daily. Statins deplete this naturally occurring

substance, which results in depleted cellular energy. Healing is often quite difficult without adequate CoQ10.

Exercise

- Be as active as you can once the anesthetic agent wears off. **MOVE IT!**
- If injections were to the spine (thoracic, ribs, lumbar, pelvis) or lower extremity, avoid prolonged sitting, walk soon after the procedure, avoid twisting, heavy lifting, pushing/pulling, and don't push it for at least 4 days post injection.
- After neck, upper back / ribs, and upper extremity injections go through easy range of motion and gentle stretching often in the 4 days post injection, and avoid any vigorous activities with the arms (again, don't push it!), preferably for 1 weeks.
- It is important to continue with your exercise and rehabilitation program, but not to increase the intensity or duration of activity quickly while being treated. If you feel like being active after a treatment then be active but modest with your level of activity. If you feel like resting, listen to your body. Exercise, and mobilization of treated areas is essential for recovery, and the continuation of core strengthening, gym work, weights, swimming, walking etc. is imperative. It is important to stretch with a degree of moderation. Deep yoga stretching is not advisable, although moderate yoga may be beneficial. Tai Chi and Chi Gong are of great benefit.
- Follow the 50% rule. If you do an activity that causes pain or discomfort, but when you stop the pain is not aggravated, then this activity and pain level is acceptable. If you feel no pain, but are aggravated later that day or the next day, you have done more than your body can handle so only do 50% as much as what you did to cause the aggravation. Gradually you can build up the level of strength.

Important Side Effects that should be noted

Before beginning prolo treatments you were informed of possible risks and side effects. If any of the following symptoms are present following your treatment please contact me.

- Difficulty breathing or completing a full breath. Usually, anxiety over needles can produce this and will pass quickly. However, a pneumothorax may have occurred, I should be informed.
- A severe headache that is **only relieved** with lying down. Inform me of this.
- Anything that may seem like an infection, an angry red inflammation (as opposed to the normal swelling that may occur without redness), fever or feeling ill should be noted.
- If the swelling from an infection produces red lines that emanate from the area injected, it is a serious sign and constitutes an emergency. You must go to hospital emergency as soon as possible for antibiotic treatment.
- Any other concerns please inform me.

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