



Prolotherapy Treatment

What is prolotherapy?

- Prolotherapy, also known as regenerative injection therapy, involves injecting substances like dextrose that trigger a mild inflammatory response. The goal is to stimulate your body's natural healing process, promoting tissue healing through increased collagen and growth factor production. This approach aims to potentially improve pain, function, and range of motion.
- While Prolotherapy is considered a safe treatment, strong evidence for its consistent effectiveness is still developing. Some people experience positive results after injections. However, these outcomes can vary and may sometimes be influenced by a placebo effect.

Why get prolotherapy:

- Prolotherapy may be an option for various musculoskeletal (bone, joint, tendon and ligament) conditions, including mild knee and hand osteoarthritis, tendinopathy, instabilities, and chronic lower back pain related to degenerative disc disease and sacroiliac (SI) joint pain. It is typically used for chronic injuries and conditions.
- Prolotherapy generally requires minimal rest afterward, making it a convenient option for athletes and individuals who cannot take time off work. Prolotherapy may help delay or even avoid the need for surgery. While research is still developing, many individuals find it useful for managing pain and improving movement.

What to know before considering prolotherapy

Before receiving prolotherapy, it's crucial to discuss your medical history and current medications with your doctor.

- **Medical history:** Please inform your doctor about past allergies, all current medications, and any recent steroid injections or steroid use. Certain medications could interfere with the injection, and your doctor will advise if medication use should be adjusted around the time of the injection.
 - Please inform your doctor if you are pregnant or have a chance of pregnancy, while prolotherapy is considered safe when pregnant, there are potential risks your doctor will discuss with you.
- **Medications:** In the week leading up to the injection, avoid taking NSAIDs (e.g., Ibuprofen, Aleve, Naproxen, Aspirin, Motrin, Voltaren, Diclofenac). If possible, avoid blood thinners (e.g., Coumadin, Eliquis, Xarelto, Plavix). You may use Acetaminophen (Tylenol®) for pain as needed.
- **Infection or joint damage:** You should not receive prolotherapy if you have an active infection anywhere in the body or in cases of severe joint damage, as prolotherapy may not be the most appropriate treatment option.
- **What to expect at a prolotherapy appointment:** On the day of your appointment, please wear comfortable clothing (t-shirt, shorts), that allows easy access to the injection site. Plan to arrive about 10 minutes early to complete the check-in process. While the injection itself only takes a few minutes, most appointments typically last between 15 and 30 minutes.

Post injection care & expectations

It's normal to feel mild pain, stiffness, or discomfort for a day or two after the injection. This is a positive sign that your body is starting a healing response, similar to when it reacts after an injury. To care for the injection site after prolotherapy:

- **Rest:** While you can return to work and activity immediately if you choose, some patients prefer to rest after a treatment. Gentle movement is encouraged, as it can help recovery and support healing.

- **Stay Hydrated:** Adequate hydration before and after your injection can support your overall healing.
- **Supportive Supplements:** After your prolotherapy injection, consider increasing your intake of collagen and protein. A multivitamin containing vitamins D, C, E, B, and calcium can also help support healing and tissue repair.
- **AVOID Ice:** Do not apply ice for 7-10 days after injection, as it can interfere with your body's natural healing process. After 10 days, if you still experience swelling or pain, you may apply ice to the injection site for 20 minutes every 2-3 hours.
- **Supplements to avoid:** For at least 10 days after your injection, avoid NSAIDs (e.g., Ibuprofen, Aleve, Naproxen, Aspirin, Motrin, Voltaren, Diclofenac), as these can interfere with the desired inflammation response. If possible, avoid blood thinners (e.g., Coumadin, Eliquis, Xarelto, Plavix) and corticosteroids. You may use Acetaminophen (Tylenol®) for pain as needed.
- **Avoid soaking:** To minimize the risk of infection, refrain from using hot tubs, pools, and bathtubs for a few days following your injection. Showering is completely ok.
- **Relief is not immediate:** Do not expect instant results. Some patients require additional injections and time to notice significant improvement.

If symptoms persist, or you are experiencing intense pain, a fever, chills, swelling getting progressively worse, or if you notice a significant change in your well-being, please consult your healthcare provider immediately.

What about additional injections?

- **Multiple injections:** Some patients may require multiple injections to notice the full effects of prolotherapy. While individual responses can vary, most patients receive between 3-6 injections over the course of a few months to achieve noticeable relief.
- **Combination therapy:** Prolotherapy can sometimes be used in combination with other injections such as hyaluronic acid (HA) or PRP, depending on your specific condition. However, it is generally not recommended to combine prolotherapy with corticosteroids/cortisone injections, as they can interfere with the desired inflammatory healing response.

Risks of prolotherapy

Pain around the injection site

- Expect mild to moderate discomfort, pain, or a sense of fullness around the injection site. This inflammation is a natural part of the healing process. You may take acetaminophen (Tylenol®) for relief. Contact your doctor if pain persists beyond 3 days or significantly worsens.

Infections (1 in 10,000 injections)

- The risk of infection is extremely low. Symptoms of infection can include fever, chills, increased pain, warmth, or redness/discoloration around the area of the injection. Symptoms can occur up to 10 days after the injection.
- If you have any of these symptoms please call our office, the Banff Mineral Springs Hospital, or go to the nearest urgent care or emergency clinic and tell them that you had prolotherapy.

Allergic Reaction

- Allergic reactions to prolotherapy are rare. Signs can include a rash, itching, hives, or, in more severe cases, difficulty breathing or swallowing. Seek immediate medical attention if you experience any allergy symptoms.

Nerve damage

- In extremely rare cases, prolotherapy injections to the back or neck, can result in injury to a spinal nerve. This could lead to pneumothoraxes, spinal headaches, or numbness.
- If you experience numbness or a sharp, electric shock-like sensation (immediately or later), contact your doctor right away. To minimize this risk, your doctor may use imaging like a fluoroscope during the procedure.

Other adverse effects

- Other potential short- and long-term adverse effects include but are not limited to: headache, dizziness, rashes, bruising, bleeding, skin discoloration, or nerve/blood vessel injury.

No improvement in symptoms

- While this is not necessarily a side-effect, it is important to understand that not all patients respond to prolotherapy. Sometimes the original pain and soreness may persist even after multiple injections. If this occurs, please book an appointment with your doctor to discuss other treatment options.