



**If you have an arthritic joint, and traditional methods have not provided relief, regenerative medicine may be your solution.**



**Background information:**

Platelet-rich plasma is a fraction of your blood which contains a high concentration of platelets. These are known to contain large quantities of growth factors which attract stem cells and stimulate the healing of damaged tissues. Stem cells are in people of all ages. They are the primitive repair cells of the body, and have the ability to regenerate many tissues depending on the growth factors to which they are exposed and the location they are placed. Stem cells can easily be harvested from fat and from bone marrow. A sample of each of these can be taken and prepared for injection into an arthritic joint to assist in regenerating healthy tissue. When stem cells are harvested from your own body and prepared for re-injection, they are called “autologous” stem cells, and there is no risk of rejection and no increased risk of cancer.

Clinical work over the last several years has established the safety and usefulness of platelet-rich plasma (PRP) for tissue repair and healing in joints with mild to moderate osteoarthritis, resulting in reduced pain and improved function for many who have had this procedure. The combined use of PRP with fat graft and bone marrow has proven to be superior to PRP alone, especially for more advanced arthritis.

201 – 3320 Richter Street  
Kelowna, BC  
V1W 4V5

Phone: 250-717-3200  
Fax: 250-717-3220  
Email: [info@drgrantpagdin.com](mailto:info@drgrantpagdin.com)

## **Procedures:**

Platelet-Rich Plasma will be produced by drawing 60 mL (two ounces) of your own blood and placing it in a machine called a centrifuge. This machine spins the blood at a very high speed causing platelets, growth factors, and white blood cells to be separated from the rest of the blood products. It is this concentration of platelets and growth factors which are then injected into an arthritic joint. Once introduced into the injured site, the platelets then release more growth factors and signaling proteins attracting more stem cells to the area, and direct the tissue repair and healing process. Because this is a gradual repair process, it takes weeks to months to happen.

Additional stem cells will be harvested from fat and bone marrow. To obtain a fat sample, 120 mL of local anesthetic is injected into the flank/buttock region and a sample of approximately 30 mL of fat is then aspirated. To obtain a bone marrow sample, local anesthetic is injected over the pelvic bone (posterior iliac crest) in the lower back region and a sample of approximately 20-30 mL of bone marrow is aspirated. It is then centrifuged to get a bone marrow concentrate. Both of these additional procedures involve very little discomfort due to the anesthetic. The final products will then be injected in sequence into the arthritic joint.

Approximately 4-6 weeks after your initial injection, you will return for a follow-up visit. We will decide whether a PRP injection to the same joint is required, followed by a follow-up visit 4-6 weeks later. A third injection may be needed. These platelet injections allow the stem cells to continue growing and multiplying into cartilage tissue. Stem cells continue to remain active for several weeks. The repair of the area usually takes 6-9 months but improvement is often apparent within 2-3 months.

201 – 3320 Richter Street  
Kelowna, BC  
V1W 4V5

Phone: 250-717-3200  
Fax: 250-717-3220  
Email: [info@drgrantpagdin.com](mailto:info@drgrantpagdin.com)

### **What are the possible side effects?**

The risks of these procedures include but are not limited to pain (likely, over 50%), fainting or lightheadedness (less common, 5-10%), bleeding and bruising (rare, less than 1%), infection (very rare, less than 1/50,000), allergic reaction to lidocaine (extremely rare), and possible loss of life or limb (exceedingly rare). Although these possibilities exist, the chance of them happening is generally less than with a standard surgical operation. It is also possible that the procedure you undergo fails to provide you any improvement. We cannot predict specific benefits from having these procedures.

### **What steps do I take to speak with Dr. Pagdin about moving forward with a procedure?**

We would be happy to set up a 15-minute no-charge consultation for you with Dr. Pagdin, either in person or by phone, to discuss any further questions you may have. We would be asking you to forward the registration form, a copy of any recent X-ray reports (not images) and recent CBC (Complete Blood Count) lab results in advance of scheduling the consultation. Any missing documentations mentioned above will delay the scheduling of your consultation.

201 – 3320 Richter Street  
Kelowna, BC  
V1W 4V5

Phone: 250-717-3200  
Fax: 250-717-3220  
Email: [info@drgrantpagdin.com](mailto:info@drgrantpagdin.com)