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About Platelet Rich Growth Factors (PRGF)

PRGF is used in musculoskeletal medicine to help heal some injuries.

How does it work?

PRGF has been in clinical use since the 1990's. Many people know that platelets form a clot if there is a cut in the skin. It turns out that platelets not only form a clot, they also start the body's own repair process. When platelets activate to form a clot, they release alpha granules which have hundreds of chemical messengers in them that initiate and organize repair to the damaged tissue. Precisely placing PRGF into the site of injury can initiate the healing process by activating on the damaged cartilage or tendon. This is an inflammatory process and inflammation is the vital first phase of healing.

What to expect and how to prepare for PRGF

- **2 weeks prior to the procedure:** Depending on the procedure, you may need to arrange for a driver to bring you home. IF you are having a lower extremity procedure, and IF you will not be able to manage using crutches, arrange for a wheelchair rental for 3 days (the day of and 2 days after your procedure). Wheel chair rental is available at Annapolis Healthcare Supplies, for \$40 dollars for 2-3 days, (410 295-7300). We can provide crutches as needed.
- **5 days prior to the procedure:** Stop taking anti-inflammatory drugs like ibuprofen, Naprosyn, Celebrex. Let your doctor know if you have been taking prednisone or other corticosteroids in the last month. These drugs may blunt the effectiveness of this treatment.
- **24 - 36 Hours before the procedure:** It will optimize the quality of the PRGF if you can manage to both reduce your overall caloric intake (to about 800 calories per day) and eat only a plant-based diet. Both research and our experience support this.
- **The day of the procedure:** If you are having an upper body procedure wear a top that can button or zip up.
- Tobacco is a potent toxin and its use constricts small blood vessels which are needed for tissue repair. Tobacco use may limit the effectiveness of any treatment and stopping tobacco use is one of the single greatest actions you can take to improve your health. After the procedure, avoid alcohol for 5 days because it inhibits and depresses the cells needed for tissue repair.

What happens during the PRGF procedure?

- We will talk about the procedure in detail and go over the risks and benefits. This is called informed medical consent.
- We will draw some of your blood and perform a two-stage centrifuge process to concentrate the platelets. The amount of blood drawn depends on the treatment plan, usually around 50 to 100 milliliters.

- The skin at the injection site will be numbed with a small injection of local anesthetic. We will then expertly inject the PRGF into the injury sites using either ultrasound or fluoroscopic guidance.

What to do after your procedure

- PRGF will initiate healing and a productive inflammation, making the area sore usually for 4 days but may be up to two weeks.
- We will prescribe specific medicine to control any discomfort you may have after the procedure. Often little or no medication is needed by patients. Avoid NSAIDs such as ibuprofen. Acetaminophen can be used for mild pain. Let me know if you have a history of opioid addiction so we can use appropriate pain medication.
- Depending on the body part injected, you may be in a sling or on crutches for several days. Just like wringing out a wet dishcloth, if you load or tense a tendon or ligament that has just been injected with PRGF, some of the PRGF injected will squish out. By keeping the treated body part relaxed, using a sling (for the shoulder or arm) or crutches (for hips and legs) for a few days, the PRGF can bind in place and start the healing process.
- Any bandages can be removed after 8 hours.
- After 3 days, unless otherwise instructed, the treated body part should be used and slowly moved through its full range of motion. It will be sore, but you will not be doing damage by moving it. It needs to move to heal. If you were on crutches for a period of time, walking is ok once you are off the crutches.
- In the weeks after treatment, avoid activities that specifically hurt you before being treated. Exercise is vital to good health and finding a way to cross train around your injury is important not only for your physical health, but for your mental health as well. Ask me about cross training options for your injury or visit drseanmulvaney.com for cross training options.
- Some brief (10 minutes or less) period of heat or ice therapy will not hurt the treatment, but it is not required.
- Depending on the initial injury, physical therapy is started four weeks after the treatment. Improvements in pain and function should be expected 8 to 12 weeks after injection and some injuries may require more than one treatment.