

GLUTEAL TENDON ULTRASOUND GUIDED PLATELET RICH PLASMA INJECTION (PRP) CLINICAL CARE GUIDELINE

Background

Platelet Rich Plasma (PRP) is an injection of your own blood that has been spun down to increase the concentration of platelets. This concentrated blood has an increase in growth factors, proteins, cytokines and other bioactive molecules that initiate and regulate the basic aspects of wound healing. The goal is to induce an inflammatory process into the diseased tendon to promote proper and long term healing.

Although post-procedure care will be tailored to fit your individual needs, the following guidelines are designed to help you and your physical therapist after the procedure. Your physician may also amend or adjust these treatments as they deem necessary

Disclaimer

Progression is time and criterion-based, dependent on soft tissue healing, patient demographics and clinician evaluation. Contact Ohio State Sports Medicine at 614-293-2385 if questions arise.

Things to Avoid Before and After Your Procedure

Over-the-counter pain medicine	<ul style="list-style-type: none">Over-the-counter pain medicine like ibuprofen (Advil™, Motrin™), naproxen (Aleve™, Naprosyn™). <u>Please avoid these medications for two weeks before and one week after your procedure.</u> They may impair your ability to heal and may increase risk of bleedingAcetaminophen (Tylenol™) is ok to take for pain after the procedure.If you are taking aspirin (ASA) for cardiovascular benefit, please continue with the same dosage.There should be no need for narcotic pain medication.
Alcohol	<ul style="list-style-type: none">Avoid 48 hours before your procedure. Do not consume alcohol while you are taking prescription pain medication.
Tobacco & nicotine	<ul style="list-style-type: none">Consider talking to your physician about stopping. These products impair your ability to heal and might reduce the beneficial effects of the procedure.
Diet	<ul style="list-style-type: none">You DO NOT need to fast overnight before the procedure. After your procedure, you may eat normal meals resume your regular diet when you feel able

Make sure your medical team provides you with the following before or at your procedure:

- Crutches if needed
- Therapy appointment times
- Follow-up times

Post-Operative Information



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Discomfort	<ul style="list-style-type: none"> Some pain after your procedure is expected for the first few weeks. Local anesthetic was used and this will begin to wear off about 8 hours after the procedure. Anticipate an increase in pain at this time and consider taking Acetaminophen (Tylenol) about 6 hours after the procedure to stay ahead of your pain. Use an ice pack on the painful area for 15 minutes as needed; in the first 2-3 days consider icing 3 times daily. If you are concerned about your pain, please contact your care team.
Bandage	<ul style="list-style-type: none"> If a bandage / dressing was applied, remove dressing after 24-48 hours. Replace with simple bandage.
Bathing	<ul style="list-style-type: none"> It is OK to bathe 24 hours after the procedure
Follow-Up Appointment	<ul style="list-style-type: none"> You will be scheduled for follow-up appointments approximately 1 week, 1 month and 3 months after your procedure.
When to call your Provider	<ul style="list-style-type: none"> If you notice increasing redness, warmth, pain, fever, drainage from the wound or other problems that concern you, call Ohio State Sports Medicine (614-293-3600) during normal clinic hours. Otherwise seek care at your local emergency room.

Post-Procedural Gluteal Tendon Care Timeline

Your Rehabilitation will follow these basic principles:

Phase 1: Inflammation: 3 - 5 days after procedure, sometimes lasting up to 2 weeks.

Purpose: localize and eliminate damaged tissue so that the body can heal.

Response: Increase in blood flow, permeability of blood vessels, migration of fluid proteins and white blood cells.

Phase 2: Proliferation: 1-4 weeks after procedure, sometimes lasting up to 8 weeks.

Purpose: PDGF recruit fibroblasts, synthesize collagen to begin to repair tissue. Controlled loading of the tendon and mechanical stimulation

Response: Davis Law: soft tissue heals according to the manner in which they are being stressed. Rest is contraindicated in this phase.

Phase 3: Remodeling: 1 -3 months after procedure.

Purpose: Remodeling, strengthening, improve cellular organization.

Response: Increased organization of collagen. Tissue and scar maturation.

Please understand that this treatment is not a “quick fix” like a cortisone injection but rather we are trying to cause long term healing of the tendon. Anticipate that it may take up to 3 months to experience improvement in your symptoms.

Day of your procedure	<ul style="list-style-type: none"> Plan to have a family member or friend drive you home after your procedure. Bring your crutches to your appointment if they were given to you at an earlier time. 				
	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Weight Bearing</th> <th style="width: 50%;">Activity and Rehab</th> </tr> </thead> <tbody> <tr> <td> Days 1-3 <ul style="list-style-type: none"> Toe-touch weight bearing with crutches if needed </td> <td> <ul style="list-style-type: none"> Rest. Begin gentle active hip range of motion exercises several times per day. </td> </tr> </tbody> </table>	Weight Bearing	Activity and Rehab	Days 1-3 <ul style="list-style-type: none"> Toe-touch weight bearing with crutches if needed 	<ul style="list-style-type: none"> Rest. Begin gentle active hip range of motion exercises several times per day.
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Days 4-6	<ul style="list-style-type: none"> Transition to partial weight-bearing using crutches placing 50% of your body weight on your treated leg. 	<ul style="list-style-type: none"> Continue with gentle active range of motion exercises. Begin isometric strengthening with quad sets and glute squeezes 3 times per day.
Progression 1 (weeks 1-3)	<ul style="list-style-type: none"> Begin weaning off the crutches and weight bear as tolerated. 	<ul style="list-style-type: none"> Continue progressing hip range of motion as needed. Initiate gentle stretching with emphasis on the quads, hip flexors and hamstrings as needed. Progress isometrics and initiate isotonic hip strengthening with emphasis on low weight and high reps including straight leg raises, clam shells and planks. May initiate swimming and pool exercises once the wound is healed. May initiate soft tissue mobilization at 2 weeks.
Criteria to Progress to Progression 2	<ul style="list-style-type: none"> Full AROM Normalized gait pattern without AD No reactive pain >24 hours 	
Progression 2 (weeks 3-6)		<ul style="list-style-type: none"> Progress open chain hip strengthening per tolerance. Initiate closed chain strengthening such as squat and bridge progressions (DL to SL). Initiate balance exercises like single-leg stance. May begin low impact aerobic exercise (stationary bike, walking, elliptical) with no incline and low resistance.
Criteria to Progress to Progression 3	<ul style="list-style-type: none"> No reactive pain >24 hours 	
Progression 3 (weeks 6-12)		<ul style="list-style-type: none"> Continue to progress strength and balance exercises. Can initiate plyometrics and sport-specific exercises (start with PWB on the shuttle to FWB) Increase intensity of low impact aerobic activity (biking, swimming, elliptical, walking). If minimal reactive pain with the above (<3/10) can initiate return-to-running program if appropriate.
Criteria to Progress to Unrestricted Activity	<ul style="list-style-type: none"> Pain free ROM 5/5 MMT No reactive pain Good dynamic control in multi-plane activities Physician approval 	

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References

1. Baker CL, Mahoney JR. Ultrasound-Guided Percutaneous Tenotomy for Gluteal Tendinopathy. *The Orthopaedic Journal of Sports Medicine*. 2020; 8(3): 1-8.
2. Bradberry DM, Sussman WI, Mautner KR. Ultrasound-Guided Percutaneous Needle Tenotomy for Chronic Tensor Fascia Lata Tendinopathy: A Case Series and Description of Sonographic Findings. *PM R*. 2018; 10: 979-983.
3. Finnoff JT, Fowler SP, Lai JK, Santrach PJ, Willis EA, Sayeed YA, Smith J. Treatment of Chronic Tendinopathy with Ultrasound-Guided Needle Tenotomy and Platelet-Rich Plasma Injection. *PM R*. 2011; 3: 900-911.
4. Jacobson JA, Yablon CM, Henning PT, Kazmers IS, Urquhart A, Hallstrom B, Bedi A, Parameswaran A. Greater Trochanteric Pain Syndrome: Percutaneous Tendon Fenestration Versus Platelet-Rich Plasma Injection for Treatment of Gluteal Tendinosis. *J Ultrasound Med*. 2016; 35: 2413-2420.
5. Lee JJ, Harrison JR, Boachie-Adjei K, Vargas E, Moley PJ. Platelet-Rich Plasma Injections with Needle Tenotomy for Gluteus Medius Tendinopathy. *The Orthopaedic Journal of Sports Medicine*. 2016; 4(11): 1-7.

