

Payment Guideline: Platelet-Rich Plasma Injections

Read First**IMPORTANT INFORMATION CONCERNING
WELLFLEET PAYMENT GUIDELINES**

This Payment Guideline serves as notice to health care providers of Wellfleet's payment practices. Health providers are advised to consult their own network provider agreement for determining specific payment policies.

Wellfleet may use reasonable discretion in applying these Payment Guidelines to health care services provided to its enrollees. This Payment Guideline does not address all the issues related to reimbursement for health care services. Other factors impacting reimbursement may supplement, modify or, in some cases, supersede this Payment Guideline. These factors may include, but are not limited to, legislative mandates, the type of provider arrangement and the terms of that agreement, and/or the member's benefit coverage document.

Wellfleet may modify this Payment Guideline at any time to comply with changes in national standards, changes in best practices, or other factors that may impact this payment Guideline. Should this Payment Guideline be revised, Wellfleet shall publish a new version of this Payment Guideline. Wellfleet encourages providers to keep current with any CPT or HCPCS updates as well as industry standards related to the services described in this Payment Guideline.

Providers are responsible for submission of accurate claims. Wellfleet reserves the right to request supporting documentation for claims submitted, including provider records.

**Applicable
Plans**

- Student Health Insurance (for policies issued or renewing after May 2019)
 - Fully Insured
 - Excluding policies issued in the following states: N/A
 - Excluding ISO
 - Self-Funded
 - Excluding policies issued by the following schools: N/A
- Student Sports
 - Fully Insured; for policies issued by the following carriers:
 - AIG
 - Axis

- Commercial Casualty Insurance Company/Wellfleet Insurance
- Self-Funded
 - Excluding policies issued by the following schools: N/A
- Fully Insured Student Accident; for policies issued by the following carriers:
 - AIG
 - Axis
 - Commercial Casualty Insurance Company/Wellfleet Insurance
- Self-Funded Employer Insurance
 - Excluding policies issued by the following employers: N/A

Purpose To describe how the use of Platelet Rich Plasma (PRP) will be considered and reviewed by Wellfleet

Scope The Guideline lists eleven specific areas of utilization for PRP. Any other utilization of PRP will require Medical Review.

Guidelines The following grid describes the evaluation performed and the results for eleven specific areas of utilization for PRP. The results are either:

1. Approve after review by RN
2. Refer for physician review
3. Investigational/Experimental

Any utilization not listed in the grid will require physician review.

Diagnosis or Procedure	Supporting Information	Appr	Refer	I/E
Achilles tendinopathy	a. RCTs failed to show any superiority of PRP compared with placebo or physiotherapy.		X	
Achilles rupture	a. In case of Achilles tendon ruptures, surgical treatment is required.			X
Anterior cruciate ligament injury or reconstruction	a. Two studies show positive results for injection without surgery: If request is for injection without surgery:	X		
	b. Systematic reviews show that when used intra-operatively there is no beneficial effects in terms of clinical outcome, bone-graft integration and prevention of bony tunnel enlargement. If request is for surgical application:			X

Diagnosis or procedure	Supporting Information	Appr	Refer	I/E
ACL reconstruction donor site: Patellar tendon	a. Recent studies showed that the application of PRP to the harvest site contributed to improved healing and pain			Patellar tendon donor site in ACL reconstruction
Knee injections for cartilage repair	a. Several individual studies, including RCTs, conclude that intra-articular PRP in the knee considerably reduces pain and improves joint stiffness and physical function. It doesn't stop or slow knee OA but can delay surgery, improve the quality of life temporarily. b. Six meta-analyses showed positive results for PRP to some extent, though there were often concerns with the results due to issues such as low patient populations, heterogeneity, etc. c. Two meta-analyses showed controversial results stating additional high-level, well designed large studies utilizing standardized protocols are needed to validate the efficacy and clinical utility of PRP d. One meta-analysis showed negative results, but it also described many confounders.		X	
Lateral epicondylitis	a. Numerous studies have been performed with PRP against varied controls and arms such as placebo, glucocorticoid injection, autologous blood injection and needling. Though more studies have positive results than negative, there is no consistency in the results, leaving more questions than answers. b. Two meta-analyses show PRP may reduce the pain associated with lateral epicondylitis. Three meta-analyses were equivocal. c. One meta-analysis of RCT's was highly positive when highly cellular leukocyte-rich PRP (LR-PRP) is used c. One meta-analysis was negative, but it was older than the others When request includes use of LR-PRP:	X		
	When request is without use of LR-PRP:		X	
Meniscal tears	a. There are few studies and they are small and contradictory. No definite conclusions can be drawn.		X	
Muscle injury	a. Non-randomized studies affirmed that PRP improves quality of tissue repair or accelerates the functional recovery. b. RCT's showed controversial results. One small RCT showed PRP improved functional recover and time to return to sport and pain management while subsequent studies showed no benefit.		X	

Diagnosis or Procedure	Supporting Information	Appr	Refer	I/E
Patellar tendinopathy	a. Three studies showed minimal benefit b. Other, minimal studies show conflicting information. c. Meta-Analysis of RTC's on tendinopathies was highly positive when highly cellular leukocyte-rich PRP (LR-PRP) is used		X	
Plantar Fasciitis	a. There are numerous studies which are conflicting. b. A meta-analysis and a systematic review state the studies are of low quality and document only a marginal benefit for PRP. They appear to show no benefit in short- and intermediate-term pain relief and only limited evidence for benefit in long term pain relief.			X
Rotator cuff injuries	a. Limited evidence does not support the routine use of platelet-rich plasma (PRP) for the treatment of rotator cuff tendinopathy or partial tears b. Limited evidence supports the use of liquid platelet-rich plasma in the context of decreasing re-tear rates i. Practitioners should feel little constraint in following a recommendation labeled as limited, exercise clinical judgment, and be alert for emerging evidence that clarifies or helps to determine the balance between benefits and potential harms. Patient preference should have a substantial influencing role. For tendinopathy and partial tears:		X	
	For all other tears			X
Ulnar collateral ligament injury	a. Three small studies on athletes all showed improvement outcomes		X	
<ol style="list-style-type: none"> Ahmad Z, Brooks R, Kang SN, Weaver H, Nunney I, Tytherleigh-Strong G, Rushton N. The effect of platelet-rich plasma on clinical outcomes in lateral epicondylitis. <i>Arthroscopy</i>. 2013 Nov;29(11):1851-62 Andriolo L, Di Matteo B, Kon E, et al. PRP Augmentation for ACL Reconstruction. <i>Biomed Res Int</i> 2015;2015:1–15. Arirachakaran A, et.al. Platelet-rich plasma versus autologous blood versus steroid injection in lateral epicondylitis: systematic review and network meta-analysis. <i>J Orthop Traumatol</i>. 2016;17(2):101–112. Assad S, Ahmad A, Kiani I, et al. Novel and Conservative Approaches Towards Effective Management of Plantar Fasciitis. <i>Cureus</i> 2016;8:e913. Betancourt JP, Murrell WD. Leukocyte-poor platelet-rich plasma to treat degenerative meniscal tear: A case report. <i>J Clin Orthop Trauma</i> 2016;7:106–9. 				

6. Blanke F, Vavken P, Haenle M, et al. Percutaneous injections of Platelet rich plasma for treatment of intrasubstance meniscal lesions. *Muscles Ligaments Tendons J.* 2015;5:162–6.
7. Boesen AP, Hansen R, Boesen MI, et al. Effect of high-volume injection, platelet-rich plasma, and sham treatment in chronic midportion Achilles tendinopathy: a randomized double-blinded prospective study. *Am J Sports Med.* 2017;45:2034–43.
8. Cai YZ, Zhang C, Lin XJ. Efficacy of platelet-rich plasma in arthroscopic repair of full-thickness rotator cuff tears: a meta-analysis. *J Shoulder Elbow Surg.* 2015 Dec;24(12):1852-9.
9. Campbell KA, Saltzman BM, Mascarenhas R, et al. Does Intra-articular Platelet-Rich Plasma Injection Provide Clinically Superior Outcomes Compared With Other Therapies in the Treatment of Knee Osteoarthritis? A Systematic Review of Overlapping Meta-analyses. *Arthroscopy* 2015;31:2213–21
10. Centeno CJ, Pitts J, Al-Sayegh H, et al. Anterior cruciate ligament tears treated with percutaneous injection of autologous bone marrow nucleated cells: a case series. *J Pain Res* 2015;8:437–47.
11. Chahal J, Van Thiel GS, Mall N, et al. The role of platelet-rich plasma in arthroscopic rotator cuff repair: a systematic review with quantitative synthesis. *Arthroscopy.* 2012 Nov;28(11):1718-27
12. Chang KV, Hung CY, Aliwarga F, Wang TG, Han DS, Chen WS. Comparative effectiveness of platelet-rich plasma injections for treating knee joint cartilage degenerative pathology: a systematic review and meta-analysis. *Arch Phys Med Rehabil.* 2014 Mar;95(3):562-75. doi: 10.1016/j.apmr.2013.11.006. Epub 2013 Nov 27
13. Chen, Xiao et al. The efficacy of platelet-rich plasma on tendon and ligament healing: A systematic review and meta-analysis with bias assessment. *The American Journal of Sports Medicine* vol. 46,8 (2018): 2020-2032.
14. Chiew SK, Ramasamy TS, Amini F. Effectiveness and relevant factors of platelet-rich plasma treatment in managing plantar fasciitis: A systematic review. *J Res Med Sci* 2016;21:38.
15. Dai WL, Zhou AG, Zhang H, Zhang J. Efficacy of Platelet-Rich Plasma in the Treatment of Knee Osteoarthritis: A Meta-analysis of Randomized Controlled Trials. *Arthroscopy.* 2017 Mar;33(3):659670.e1.
16. Dang, Q. Knee injection. February 11, 2020. Medscape.com <https://www.sciencedirect.com/science/article/abs/pii/S0749806311005238>
17. de Jonge S, de Vos RJ, Weir A, et al. One-year follow-up of platelet-rich plasma treatment in chronic Achilles tendinopathy: a double-blind randomized placebo-controlled trial. *Am J Sports Med.* 2011;39:1623–9.
18. de Vos RJ, Weir A, van Schie HT, Bierma-Zeinstra SM, Verhaar JA, Weinans H, Tol JL. Platelet-rich plasma injection for chronic Achilles tendinopathy: a randomized controlled trial. *JAMA.* 2010 Jan 13;303(2):144-9
19. Deal JB, Smith E, Heard W, et al. Platelet-Rich Plasma for Primary Treatment of Partial
20. Ulnar Collateral Ligament Tears: MRI Correlation With Results. *Orthop J Sports Med* 2017;5:232596711773823.
21. Delanois RE, Etcheson JI, Sodhi N, Henn RF 3rd, Gwam CU, George NE, Mont MA. Biologic therapies for the treatment of knee osteoarthritis. *J Arthroplasty.* 2019 Apr;34(4):801-813. doi: 10.1016/j.arth.2018.12.001. Epub 2018 Dec 17.
22. Di Y, Han C, Zhao L, Ren Y. Is local platelet-rich plasma injection clinically superior to hyaluronic acid for treatment of knee osteoarthritis? A systematic review of

- randomized controlled trials. *Arthritis Res Ther.* 2018 Jun 19;20(1):128. doi: 10.1186/s13075-018-1621-0
23. Di Matteo B, Loibl M, Andriolo L, et al. Biologic agents for anterior cruciate ligament healing: A systematic review. *World J Orthop* 2016;7:592–603.
 24. Dragoo JL, Wasterlain AS, Braun HJ, Nead KT. Platelet-rich plasma as a treatment for patellar tendinopathy: a double-blind, randomized controlled trial. *Am J Sports Med.* 2014;42:610–8.
 25. Dupley L, Charalambous CP. Platelet-Rich Plasma Injections as a Treatment for Refractory Patellar Tendinosis: A Meta-Analysis of Randomised Trials. *Knee Surg Relat Res* 2017;29:165–71.
 26. Figueroa D, Figueroa F, Calvo R, Vaisman A, Ahumada X, Arellano S. Platelet-rich plasma use in anterior cruciate ligament surgery: systematic review of the literature. *Arthroscopy.* 2015 May;31(5): 9818
 27. Filardo G, Di Matteo B, Kon E, Merli G, Marcacci M. Platelet-rich plasma in tendon-related disorders: results and indications. *Knee Surg Sports Traumatol Arthrosc.* 2018 Jul;26(7):1984-1999. doi: 10.1007/s00167-016-4261-4. Epub 2016 Sep 24
 28. Filardo G, Kon E, Pereira Ruiz MT, et al. Platelet-rich plasma intra-articular injections for cartilage degeneration and osteoarthritis: single- versus double-spinning approach. *Knee Surg Sports Traumatol Arthrosc* 2012;20:2082–91.
 29. Fitzpatrick, J. Bulsara, M and Zheng, M.H. The effectiveness of platelet-rich plasma in the treatment of tendinopathy: a meta-analysis of randomized controlled clinical trials. *Am J Sports Med.* 2017 Jan;45(1):226-233.
 30. Franceschi F, Papalia R, Franceschetti E, et al. Platelet-rich plasma injections for chronic plantar fasciopathy: a systematic review. *Br Med Bull* 2014;112:83–95.
 31. Franchini, M. et.al. Efficacy of platelet-rich plasma as conservative treatment in orthopaedics: a systematic review and meta-analysis. *Blood Transfus.* 2018 Nov;16(6):502-513.
 32. Griffin JW, Hadeed MM, Werner BC, et al. Platelet-rich plasma in meniscal repair: does augmentation improve surgical outcomes? *Clin Orthop Relat Res* 2015;473:1665–72.
 33. Hamilton B, Tol JL, Almusa E, et al. Platelet-rich plasma does not enhance return to play in hamstring injuries: a randomised controlled trial. *Br J Sports Med* 2015;49:943–50.
 34. Hayes, Inc. Medical Technology Directory. Comparative effectiveness review of platelet-rich plasma for rotator cuff repairs, tendinopathies, and related conditions: A review of reviews. Lansdale, PA: Hayes, Inc. May 31, 2018. Reviewed Jun 26, 2019.
 35. Hayes, Inc. Medical Technology Directory. Comparative effectiveness review of platelet-rich plasma for treatment of conditions of the Achilles tendon and plantar fascia. Lansdale, PA: Hayes, Inc.; Mar 1, 2018. Reviewed Mar 14, 2019
 36. Hayes, Inc. Medical Technology Directory. Comparative effectiveness review of platelet-rich plasma for treatment of lateral epicondylitis: A review of reviews. Lansdale, PA: Hayes, Inc.; Nov 26, 2018.
 37. Hoffman JK, Protzman NM, Malhotra AD. Biologic Augmentation of the Ulnar Collateral Ligament in the Elbow of a Professional Baseball Pitcher. *Case Rep Orthop* 2015;2015:1–5.
 38. Hurley ET, Lim Fat D, Moran CJ, et al. The Efficacy of Platelet-Rich Plasma and Platelet-Rich Fibrin in Arthroscopic Rotator Cuff Repair: A Meta-analysis of Randomized Controlled Trials. *Am J Sports Med* 2019;47:753–61. 363546517751397.

39. Jo CH, Shin JS, Lee SY, et al. ALLOGENEIC PLATELET-RICH PLASMA FOR ROTATOR CUFF REPAIR. *Acta Ortop Bras* 2017;25:38–43.
40. Kearney RS, Parsons N, Costa ML. Achilles tendinopathy management: A pilot randomised controlled trial comparing platelet-rich plasma injection with an eccentric loading programme. *Bone Joint Res*. 2013;2:227–32.
41. Khoshbin A, Leroux T, Wasserstein D, Marks P, Theodoropoulos J, Ogilvie-Harris D, Gandhi R, Takhar K, Lum G, Chahal J. The efficacy of platelet-rich plasma in the treatment of symptomatic knee osteoarthritis: a systematic review with quantitative synthesis. *Arthroscopy*. 2013 Dec;29(12):2037-48
42. Krogh TP, Ellingsen T, Christensen R, et al. Ultrasound-guided injection therapy of Achilles tendinopathy with platelet-rich plasma or saline: a randomized, blinded, placebo-controlled trial. *Am J Sports Med*. 2016;44:1990–7.
43. Lai LP, Stitik TP, Foye PM, Georgy JS, Patibanda V, Chen B. Use of platelet-rich plasma in intra-articular knee injections for osteoarthritis: A Systematic Review. *PM R*. 2015 Jun;7(6):637-48
44. Martinez-Zapata MJ, Orozco L, Balias R, et al. Efficacy of autologous platelet-rich plasma for the treatment of muscle rupture with haematoma: a multicentre, randomised, double-blind, placebo-controlled clinical trial. *Blood Transfus* 2016;14:245–54.
45. Meheux CJ, McCulloch PC, Lintner DM, Varner KE, Harris JD. Efficacy of Intra-articular Platelet-Rich Plasma Injections in Knee Osteoarthritis: A Systematic Review. *Arthroscopy*. 2016 Mar;32(3):495-505
46. Mi B, Liu G, Zhou W, Lv H, Liu Y, Wu Q, Liu J. Platelet rich plasma versus steroid on lateral epicondylitis: meta-analysis of randomized clinical trials. *Phys Sportsmed*. 2017 May;45(2):97-104.
47. Mishra A, Pavelko T. Treatment of chronic elbow tendinosis with buffered platelet-rich plasma. *Am J Sports Med* 2006;34:1774–8.
48. Moraes VY, Lenza M, Tamaoki MJ, et al. Platelet-rich therapies for musculoskeletal soft tissue injuries. *Cochrane Database Syst Rev* 2014:CD010071. CD010071.
49. Pas HI, Reurink G, Tol JL, et al. Efficacy of rehabilitation (lengthening) exercises, platelet-rich plasma injections, and other conservative interventions in acute hamstring injuries: an updated systematic review and meta-analysis. *Br J Sports Med* 2015;49:1197–205.
50. Peerbooms JC, Sluimer J, Bruijn DJ, Gosens T. Positive effect of an autologous platelet concentrate in lateral epicondylitis in a double-blind randomized controlled trial: platelet-rich plasma versus corticosteroid injection with a 1-year follow-up. *Am J Sports Med*. 2010 Feb;38(2):255-62.
51. Podesta L, Crow SA, Volkmer D, et al. Treatment of partial ulnar collateral ligament tears in the elbow with platelet-rich plasma. *Am J Sports Med* 2013;41:1689–94.
52. Pujol N, Salle De Chou E, Boisrenoult P, et al. Platelet-rich plasma for open meniscal repair in young patients: any benefit? *Knee Surg Sports Traumatol Arthrosc*. 2015;23:51–8.
53. Reurink G, Goudswaard GJ, Moen MH, et al. Rationale, secondary outcome scores and 1-year follow-up of a randomised trial of platelet-rich plasma injections in acute hamstring muscle injury: the Dutch Hamstring Injection Therapy study. *Br J Sports Med* 2015;49:1206–12.
54. Sánchez M, Fiz N, Azofra J, et al. A randomized clinical trial evaluating plasma rich in growth factors (PRGF-Endoret) versus hyaluronic acid in the short-term treatment of symptomatic knee osteoarthritis. *Arthroscopy* 2012;28:1070–8.

55. Seijas R, Ares O, Cuscó X, et al. Partial anterior cruciate ligament tears treated with intraligamentary plasma rich in growth factors. *World J Orthop* 2014;5:373–8.
56. Seijas R, Cuscó X, Sallent A, et al. Pain in donor site after BTB-ACL reconstruction with PRGF: a randomized trial. *Arch Orthop Trauma Surg* 2016;136:829–35.
57. Seijas R, Rius M, Ares O, et al. Healing of donor site in bone-tendon-bone ACL reconstruction accelerated with plasma rich in growth factors: a randomized clinical trial. *Knee Surg Sports Traumatol Arthrosc* 2015;23:991–7.
58. Shen L, Yuan T, Chen S, Xie X, Zhang C. The temporal effect of platelet-rich plasma on pain and physical function in the treatment of knee osteoarthritis: systematic review and meta-analysis of randomized controlled trials. *J Orthop Surg Res.* 2017 Jan 23;12(1):16. doi: 10.1186/s13018-017-05213.
59. Trojan, T. and Tucker, A. Plantar fasciitis. *Am Fam Physician.* 2019;99(12):744-750.
60. Tsikopoulos K, Tsikopoulos A, Natsis K. Autologous whole blood or corticosteroid injections for the treatment of epicondylopathy and plantar fasciopathy? A systematic review and meta-analysis of randomized controlled trials. *Phys Ther Sport* 2016;22:114–22.
61. Vaquerizo V, Plasencia MÁ, Arribas I, et al. Comparison of intra-articular injections of plasma rich in growth factors (PRGF-Endoret) versus Durolane hyaluronic acid in the treatment of patients with symptomatic osteoarthritis: a randomized controlled trial. *Arthroscopy* 2013;29:1635–43.
62. Vavken P, Sadoghi P, Palmer M, et al. Platelet-Rich Plasma Reduces Retear Rates After Arthroscopic Repair of Small- and Medium-Sized Rotator Cuff Tears but Is Not Cost-Effective. *Am J Sports Med* 2015;43:3071–6.
63. Vetrano M, Castorina A, Vulpiani MC, et al. Platelet-rich plasma versus focused shock waves in the treatment of jumper’s knee in athletes. *Am J Sports Med.* 2013;41:795–803
64. Warth RJ, Dornan GJ, James EW, et al. Clinical and structural outcomes after arthroscopic repair of full-thickness rotator cuff tears with and without platelet-rich product supplementation: a meta-analysis and meta-regression. *Arthroscopy* 2015;31:306–20.
65. Weber, S. and Chahal, J. Management of rotator cuff injuries. *Journal of the American Academy of Orthopedic Surgery.* 2020;28(5):e193-e201.
66. Walrod, B.J. Lateral Epicondylitis. October 30, 2018.
<https://emedicine.medscape.com/article/96969-treatment>
67. Yang WY, Han YH, Cao XW, et al. Platelet-rich plasma as a treatment for plantar fasciitis: A meta-analysis of randomized controlled trials. *Medicine* 2017;96:e8475.
68. Zhao JG, Zhao L, Jiang YX, Wang ZL, Wang J, Zhang P. Platelet-rich plasma in arthroscopic rotator cuff repair: a meta-analysis of randomized controlled trials. *Arthroscopy.* 2015 Jan;31(1):125-35



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PAYMENT GUIDELINE

Guideline No: GL-019

Change History

Version	Effective Date	Next Review Date
1.0	6/1/2020	6/1/2021
2.0	6/1/2021	6/1/2022
