Molina Clinical Policy
Platelet-Rich Plasma (PRP)
Policy No. 207

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OVERVIEW

Platelet-rich plasma (PRP) is a blood product derived from plasma that contains an increased concentration of platelets. PRP is also referred to as autologous platelet concentrate (APC) and autologous platelet gel (APG). The use of PRP is an approach being investigated for the treatment of soft tissue and bone healing, chronic non-healing wounds including burns and diabetic ulcers, osteoarthritis, tendon and ligament injuries and other surgeries. It is proposed that activated platelets initiate repair by releasing potent locally acting growth factors that stimulate a connective tissue response, causing division and migration of fibroblasts and formation of new capillaries to aid in the healing process. Platelet-rich plasma is usually prepared by drawing blood from the patient and processing the sample in a centrifuge to obtain a concentrated suspension of platelets. PRP is injected or implanted during surgery with the goal of accelerating healing. For wound healing, PRP is applied directly to the wound surface to promote growth of skin, soft tissue, and blood vessels (Hayes 2022; Hayes 2025; Hayes 2026).

COVERAGE POLICY

Platelet rich plasma is considered **experimental, investigational, and unproven** due to insufficient evidence in the peer-reviewed medical literature to establish long-term safety, efficacy, and effect on net health outcomes.

DOCUMENTATION REQUIREMENTS: Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational, or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

SUMMARY OF MEDICAL EVIDENCE

Results from both randomized controlled trials (RCTs) and nonrandomized controlled studies provide varied and inconclusive evidence regarding the ability of injection of platelet-rich plasma (PRP) to improve outcomes or accelerate healing in patients for any indication. Below is a summary of the most relevant evidence-based studies.

Chronic Wounds

Randomized Controlled Trials

Parsa et al. (2026) conducted a double-blind randomized clinical trial to evaluate the comparative effectiveness of platelet-rich plasma (PRP) versus standard wound care in adults with diabetic foot ulcers. A total of 50 adults aged 40-70 with type I or type II diabetes and eligible diabetic foot ulcers were included in the study. Exclusion criteria included infected ulcers, Charcot deformity, bone involvement, and ulcer sizes outside of the 0.4 – 34 cm range. The outcome criteria centered on achieving a > 50% reduction in ulcer area, complete wound closure, and changes in mean wound size. The results demonstrated significantly greater improvement in the PRP group: 60% of PRP-treated patients reached the primary endpoint compared with 30% receiving standard care ($p = 0.032$). Mean ulcer size declined from

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12.3 cm² to 4.1 cm² in the PRP group versus 11.8 cm² to 7.9 cm² with standard treatment ($p < 0.05$). Complete healing occurred in 28% of PRP patients versus 8% in controls ($p = 0.04$). Demographically, there were no statistically significant differences between groups in gender ($p = 0.41$) or HbA1c ($p = 1.00$), although younger age was correlated with improvement in the standard-care group ($p = 0.0001$) but not in the PRP group ($p = 0.24$). Noted limitations included small sample size, single-center design, inconsistent follow-up, and lack of long-term recurrence data. The authors reported that PRP was associated with significantly greater short-term healing than standard care, although additional large-scale, long-term trials are needed to confirm clinical durability and broader applicability.

Hossman et al. (2022) completed a single-center, prospective, randomized controlled study to compare the local application of PRP to standard wound care for non-ischemic diabetic foot ulcers. Eighty patients were enrolled and randomized 1:1, to receive either local injection of PRP to the healing edge and floor of the diabetic foot ulcer (Group A) or receive standard wound care with moist dressing, either with or without collagenase ointment (Group B). Primary outcomes measured included improvement of the diabetic foot ulcer total surface area and rate of complete healing. Secondary outcomes included rates of wound infection, and major limb amputation. The following inclusion criteria for patient selection was applied: American Society of Anesthesiologists (ASA) type II, with either type 1 or type 2 diabetes, a chronic diabetic foot ulcer of 6 months duration or longer, no signs on infection, intact pedal pulse and an arterial duplex showing a patent arterial tree with a peak systolic velocity of >60 cm/sec. Patients with an ASA of > II were excluded from the study. Group A received prepared PRP to the ulcer every two weeks up to three times. Group B received standard wound care. Participants had follow-up sessions every week, for up to 12 weeks. Baseline and weekly photos were taken of the diabetic foot ulcers, and total surface area was measured. Over the first five weeks there was a statistically higher reduction in diabetic foot ulcers in Group A than in Group B. At 2.5 weeks in Group A there was a ≥50% reduction in ulcer total surface area, compared to 4.5 weeks for Group B ($p < 0.001$). Group A had a 90% reduction in ulcer total surface area at 5 weeks, compared to 7 weeks for Group B ($p < 0.001$). At week 6, 95% of Group A had achieved complete would healing, as compared to 77.8% of group B in the ninth week ($p < 0.001$). There were 4 superficial wound infections in Group A (PRP), compared to 18 in Group B (standard care) who developed either superficial or deep wound infection and cellulitis ($p < 0.001$). No major amputations occurred in Group A. There were four major amputations in Group B. The author noted limitations included lack of standardization in the fabrication of the PRP and application method. Additional limitations included small patient population and lack of long term follow up. This meta-analysis showed that at the 3, 6, and 12 month follow-ups that intra-articular FR-PRP had better overall outcomes than intra-articular HA injections in patients with knee osteoarthritis in WOMAC and IKDC scores. There was no difference in the VAS scores of the LR-PRP group as compared to the HA group e at 1, 3, 6, and 12 months after injection. Limitations to this study were English only publications, high heterogeneity (gender, age, and severity of knee osteoarthritis). Additional elements include PRP injection frequency, volumes, intervals, as well as injection techniques. Lastly, some of the RCTs reviewed had small patient sample sizes.

Systematic Reviews and Meta-Analysis

Li et al. (2024) performed a meta-analysis of randomized controlled trails assessing the therapeutic value of allogeneic platelet-rich plasma (al-PRP) for chronic refractory wounds. Eligible studies met inclusion criteria requiring human RCTs evaluating al-PRP for non-healing wounds such as diabetic ulcers, pressure injuries, venous or arterial ulcers, radiation-related wounds, or post-traumatic wounds, while exclusion criteria removed duplicate publications, trials lacking extractable data, studies with combined interventions, non-RCT designs, and animal or cadaveric experiments. The outcome criteria included healing rate, time to wound closure, treatment efficacy rate, wound-area reduction, and length of hospital stay. Across 12 RCTs involving 717 participants, the results demonstrated that al-PRP was significantly more effective than conventional care, yielding a higher healing rate ($p < 0.00001$), shorter healing time ($p < 0.00001$), improved overall efficacy ($p < 0.00001$), greater wound shrinkage ($p < 0.00001$), and reduced hospital stay by approximately 2.6 days ($p = 0.003$). Safety outcomes showed no significant differences in adverse events between al-PRP and standard treatment groups. Limitations included variability in PRP preparation methods, lack of blinding due to the nature of the intervention, heterogeneity in patient populations and wound types, small sample sizes in several trials, and geographic concentration of studies in East Asia, limiting generalizability. The analysis indicates that allogeneic PRP is a promising and safe biological therapy that can improve healing outcomes in chronic refractory wounds, though larger multicenter RCTs are needed to strengthen the evidence base and confirm long-term safety and effectiveness.

Qu et al. (2020) conducted a systematic review and meta-analysis to evaluate the effectiveness of PRP in healing lower extremity diabetic ulcers, lower extremity venous ulcers, and pressure ulcers. The study included 22 randomized controlled trials (RCTs) and 5 observational studies with a total of 1,796 subjects. Follow up ranged from no follow up

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to 11 months. PRP therapy increased complete wound closure or healing (moderate strength of evidence) and shortened healing time and reduced wound size (low strength of evidence) in lower extremity diabetic ulcers compared to therapy without PRP. No significant changes were found regarding wound infection, amputation, wound recurrence, or hospitalization. The evidence was insufficient to estimate the effect of PRP on lower extremity venous ulcers or pressure ulcers. Limitations of the study include inadequate description of wound care procedures, wound characteristics, PRP formulation techniques, concentration, and volume; inadequate length of follow up; and lack of stratification by comorbidities and other patient characteristics.

Knee Osteoarthritis

Randomized Controlled Trials

Argut et al. (2024) conducted a three-arm randomized, controlled clinical trial to evaluate whether platelet-rich plasma (PRP) therapy, a structured exercise program, or a combination of the two provided greater pain relief for knee osteoarthritis (OA). A total of 84 participants with mild-to-moderate knee OA were evenly allocated into three groups (n=28 per group). The exercise group participated in a 6-week structured regimen comprising 12 supervised sessions focusing on strength and functional exercises. The PRP group received three weekly injections of fresh, leukocyte-poor PRP, while the third group underwent both interventions. The primary outcome of the study was knee pain assessed over a 24-week period using an 11-point numeric rating scale (0 indicating no pain and 10 representing the worst pain), with a minimum clinically important difference (MCID) set at 2 points. Secondary outcomes included scores on the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), which ranges from 0 to 100 (lower scores reflect less disability, with an MCID of 12 points); completion times for the 40-meter fast-paced walk test and stair climbing test; and the SF-12 health-related quality of life score. At the 24-week mark, no clinically meaningful differences in pain relief or secondary outcomes were observed across the groups. Exercise alone demonstrated better clinical outcomes than PRP alone, particularly in terms of function and the physical aspects of health-related quality of life. Based on these findings, the study concluded that PRP therapy does not enhance treatment outcomes for knee OA, and its added cost and effort cannot be justified given the lack of additional benefit over exercise alone.

Systematic Reviews and Meta-Analysis

Fengzhen et al. (2025) presented an updated systematic review and meta-analysis of randomized controlled trials evaluating arthroscopic debridement combined with platelet-rich plasma (PRP) injection for knee osteoarthritis (KOA). The inclusion criteria required RCTs enrolling patients diagnosed with KOA and comparing arthroscopy alone with arthroscopy plus PRP. The outcome criteria included overall clinical response rate, visual analog scale (VAS) pain scores, Lysholm knee function scores, WOMAC scores, and adverse event rates. The results across 17 RCTs involving 1,587 participants showed that the combined therapy significantly outperformed arthroscopy alone, with a markedly higher clinical response rate ($p < 0.00001$), consistent subgroup effects at 3 months ($p = 0.0005$), 6 months ($p < 0.00001$), and 12 months ($p < 0.0001$). VAS pain scores improved significantly ($p = 0.004$), as did Lysholm function scores ($p < 0.00001$) and WOMAC disability scores ($p < 0.00001$). Adverse reactions did not differ significantly between groups ($p = 0.52$). Important limitations included heterogeneity across studies, variability in follow-up durations and PRP protocols, inconsistent blinding and allocation concealment, and the presence of publication bias. The meta-analysis suggests that adding PRP to arthroscopic debridement yields superior improvements in pain, stiffness, and function compared with arthroscopy alone, without increasing adverse events, although higher-quality, standardized trials are needed to establish definitive treatment guidance.

Qaio et al. (2023) performed a systematic review and meta-analysis to evaluate injectable therapies for knee osteoarthritis, including platelet-rich plasma (PRP). The analysis encompassed 35 randomized controlled trials (RCTs) with a total of 3,104 participants. Treatment durations varied from 3 to 24 months, and the studies assessed outcomes using the visual analog score (VAS), the Western Ontario and McMaster Universities Osteoarthritis (WOMAC) score, and treatment-related adverse effects. All studies provided 3-month follow-up data, while fewer reported outcomes at 6, 9, or 12 months. The findings highlighted that PRP achieved the best results in WOMAC scores across all follow-up periods, indicating its effectiveness for knee osteoarthritis. In terms of VAS scores, PRP demonstrated the second-best outcomes at 3 months, although its effectiveness declined at 6 and 12 months compared to other injectable options. The researchers noted that PRP showed the lowest rate of adverse effects, though inconsistencies in data, the number of injections, and follow-up timelines limited the reliability of the findings. They recommended more standardized and high-quality studies to confirm PRP's potential benefits and establish its ideal application.

Peng et al. (2021) performed a systematic review and meta-analysis of 14 RCTs evaluating intra-articular leukocyte-rich platelet-rich plasma (LR-PRP) compared with hyaluronic acid (HA) for symptomatic knee osteoarthritis.

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The inclusion criteria required English-language RCTs in adults with knee OA that directly compared LR-PRP with HA, while exclusion criteria eliminated non-randomized designs, trials lacking control groups, pediatric populations, animal or cadaveric studies, and studies without extractable outcomes. The outcome criteria focused on WOMAC total, pain, stiffness, and physical function scores, as well as visual analog scale (VAS) pain ratings, International Knee Documentation Committee (IKDC) scores, and adverse event rates. The results involving 1,485 patients, 815 patients receiving LR-PRP injections and receiving HA injections, showed that LR-PRP produced significantly greater improvements in multiple functional domains: WOMAC total improved ($p = 0.0004$), WOMAC pain improved ($p = 0.003$), WOMAC stiffness improved ($p = 0.0007$), and WOMAC physical function improved ($p < 0.00001$). IKDC scores also favored LR-PRP at 6 months ($p = 0.0008$). In contrast, VAS pain scores showed no significant difference ($p = 0.88$), and adverse events were comparable between groups ($p = 0.41$). Limitations included substantial heterogeneity across studies, variation in PRP preparation methods and injection protocols, inconsistent follow-up durations, and small sample sizes in some trials. In conclusion, despite the absence of superior pain relief on VAS metrics, LR-PRP demonstrated consistently better functional and composite outcomes than HA at 3-, 6-, and 12-month follow-ups, supporting LR-PRP as a potentially viable non-surgical option for improving function in knee osteoarthritis.

Sax et al. (2022) completed a systematic review and meta-analysis that included 24 RCTs comparing PRP injections to treatment with a control group (hyaluronic acid, corticosteroid injections, normal saline injections, or exercise therapy. The results showed that PRP could potentially be associated with improvements in pain and functional improvements; however, there were no clinically significant differences or knee-related structural changes between PRP injections and control groups. An RCT of 78 patients with bilateral OA were divided randomly into 3 groups. Group A (52 knees) received a single injection of PRP, group B (50 knees) received 2 injections of PRP 3 weeks apart, and group C (46 knees) received a single injection of normal saline. Results reported that a single dose of WBC-filtered PRP in concentrations of 10 times the normal amount is as effective as 2 injections to alleviate symptoms in early knee OA. The results, however, deteriorate after 6 months (Patel et al. 2013). Two RCTs compared the effectiveness of intraarticular (IA) multiple and single platelet-rich plasma (PRP) injections as well as hyaluronic acid (HA) injections in different stages of osteoarthritis (OA) of the knee and found there was no significant difference in the scores of patients injected with one dose of PRP or HA (Gormeli et al. 2017; Montanez-Heredia et al. 2016). A double-blind RCT conducted by Bennell et al. (2021) compared injection with PRP versus placebo (saline) in a group of 288 participants with symptomatic medial knee OA and found no significant difference in symptoms or joint structure at 12 months between the two treatment groups.

Tendon, Ligament, and Joint Indications

Randomized Controlled Trials

Hsieh et al. (2026) reported on a prospective, single-blinded randomized controlled trial comparing platelet-rich plasma, corticosteroid, and normal saline injections, combined with physical therapy, for the management of primary frozen shoulder. The inclusion criteria required adults with idiopathic frozen shoulder, while exclusion criteria omitted individuals with secondary causes of shoulder restriction or other conditions affecting shoulder mechanics. The outcome criteria centered on the Shoulder Pain and Disability Index (SPADI) as the primary measure, with secondary evaluations including the Shoulder Disability Questionnaire (SDQ), pain visual analog scale (VAS), active and passive ranges of motion, SF-36 quality-of-life metrics, and patient self-assessment at multiple follow-ups through 6 months. The results demonstrated that the CS group showed significantly greater improvement than both PRP and NS groups across several domains, including SPADI ($p < .001$), SDQ ($p < .001$), pain VAS during activity ($p = .005$), active abduction ($p = .022$), active internal rotation ($p = .036$), passive abduction ($p = .012$), passive internal rotation ($p = .029$), self-assessment ($p < .001$), and select SF-36 subscales, with therapeutic effects emerging as early as 1 month and persisting through 6 months. Limitations include the single-blinded design, variability in patients' responses to standardized physical therapy, and limited generalizability due to the use of a single PRP formulation and a 6-month follow-up period. Limitations include the single-blinded design, potential variability in patients' responses to standardized physical therapy, and limited generalizability due to the use of a single PRP formulation and a 6-month follow-up period. The trial found that corticosteroid injections provided superior short-term and intermediate improvements compared with PRP, although all three groups—including PRP and saline—exhibited meaningful post-treatment gains.

Somisetty et al. (2023) conducted a prospective randomized controlled trial comparing intra-articular platelet-rich plasma (PRP) and corticosteroid (CS) injections for the management of frozen shoulder. The study's inclusion criteria allowed adults aged 18–75 with primary frozen shoulder unresponsive to at least three months of conservative therapy, while exclusion criteria removed patients with trauma-related or postsurgical shoulder conditions, uncontrolled

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diabetes, immunosuppression, anticoagulant or antiplatelet use, shoulder instability, or local infection or skin lesions. The outcome criteria included assessments of pain using the visual analog scale (VAS), shoulder function via the QuickDASH and SPADI scores, and range-of-motion measurements collected up to 24 weeks. The results showed that PRP produced significantly greater long-term improvements than CS; at 24 weeks, the PRP group demonstrated lower VAS scores ($p \leq 0.001$), better QuickDASH scores ($p \leq 0.001$), and improved SPADI outcomes ($p \leq 0.001$), with complication rates remaining similarly low in both groups. Limitations included the use of subjective outcome measures, the absence of imaging-based evaluation of structural healing, and the inclusion of patients across all stages of frozen shoulder, which may influence treatment responsiveness. The trial suggested that intra-articular PRP injections yield more durable improvements in pain, shoulder mobility, and daily function than corticosteroid injections, supporting PRP as a potential option for patients who cannot receive or prefer to avoid steroid therapy, while highlighting the need for further research to clarify stage-specific effectiveness and the value of ultrasound-guided delivery.

Kwong et al. (2020) conducted a double-blind randomized controlled trial evaluating platelet-rich plasma (PRP) versus corticosteroid (CS) injection for patients with ultrasound- or MRI-confirmed partial-thickness rotator cuff tears (PTRCTs) or rotator cuff tendinopathy. Inclusion criteria required adults with imaging-verified PTRCTs or tendinopathy who had not undergone prior surgical repair, while exclusion criteria eliminated individuals with full-thickness tears, previous injections within three months, systemic inflammatory disease, or contraindications to injection therapy. The outcome criteria included pain improvement measured by the visual analog scale (VAS) as the primary endpoint, and functional improvement assessed through ASES and WORC scores, with treatment failure defined as the need for repeat injection, consent for surgery, or surgical intervention. Results from 99 participants (47 PRP; 52 CS) showed that although baseline symptoms were more severe in the PRP group, PRP produced significantly greater short-term improvement at 3 months in VAS ($p = .03$), ASES ($p = .02$), and WORC scores ($p = .03$). No statistically significant differences were observed at 6 weeks or 12 months, and failure rates and conversion to surgery were similar between groups ($p = .31$ and $p = .83$, respectively). Limitations included imbalanced baseline symptom severity despite randomization, relatively short follow-up for assessing structural healing, and reliance on patient-reported outcomes without imaging-based confirmation of tendon recovery. In conclusion, both PRP and CS injections yielded clinical improvement, but PRP delivered superior short-term pain and functional benefit only at the 3-month mark, with no sustained advantage over corticosteroids at one year.

Alsousou et al. (2019) conducted the PATH-2 multicenter double-blinded randomized controlled trial evaluating platelet-rich plasma for acute Achilles tendon rupture (ATR). Eligible participants included adults presenting within 12 days of an acute ATR scheduled for non-operative management, while exclusion criteria eliminated individuals with platelet dysfunction or pre-existing lower-limb functional deficits. The outcome criteria focused on the Limb Symmetry Index (LSI) of work performed during the heel-rise endurance test at 24 weeks, with secondary endpoints including heel-rise repetitions, maximal heel-rise height, Achilles Tendon Total Rupture Score (ATRS), pain, quality-of-life metrics, and goal attainment, along with mechanistic assessments of blood and tissue samples in a small substudy. Results showed no meaningful difference between the PRP and placebo groups: at 24 weeks, the primary endpoint demonstrated a nonsignificant mean difference in work LSI ($p = 0.231$), and no secondary patient-reported or functional outcomes differed at any measured time point; complication rates, including re-rupture and deep-vein thrombosis, were also similar. There was no correlation between tendon functional recovery and PRP biological characteristics, including platelet activation, or whole-blood cell counts. Limitations included reliance on a single PRP preparation protocol, potential variability in rehabilitation adherence, and the fact that conclusions were limited by the small biomarker substudy sample. The trial found no clinical benefit of PRP over placebo for improving functional recovery after acute ATR, indicating that current evidence does not support PRP use for this indication and that further high-quality tendon and soft-tissue trials are needed to clarify whether any subgroups may benefit.

Keene et al. (2022) conducted a two-year follow-up of the PATH-2 randomized controlled trial to evaluate whether PRP injection improves long-term outcomes following acute, non-surgically managed Achilles tendon rupture. The outcome criteria centered on the Achilles Tendon Rupture Score (ATRS) at 2 years, with secondary measures including pain scores, the Patient-Specific Functional Scale (PSFS), and SF-12 physical and mental health scores. Results from 230 randomized participants (114 PRP; 116 placebo) showed no significant differences between groups at 2-year follow-up: adjusted mean ATRS was 82.2 vs 83.8 ($p = 0.757$), with similarly non-significant findings for PSFS ($p = 0.941$), SF-12 physical ($p = 0.716$) and mental ($p = 0.908$) scores, and ATRS pain ($p = 0.848$). No re-ruptures occurred between 24 weeks and 2 years, and PRP cellular and growth-factor characteristics showed no correlation

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with clinical outcomes. Key limitations included differing blood-draw volumes between groups, lack of ultrasound-guided injections, the absence of a long-term objective functional test such as the heel-rise endurance test, and potential generalizability constraints due to standardized PRP preparation with a single device. PRP did not improve function, pain, or quality of life at 2 years after acute Achilles tendon rupture, indicating no long-term clinical benefit compared with placebo for this condition.

Le et al. (2026) performed a Bayesian re-analysis of the PATH-2 randomized controlled trial to reassess whether PRP provides functional benefit for adults with acute Achilles tendon rupture (ATR). The outcome criteria focused on 24-month functional recovery measured using the Achilles Tendon Total Rupture Score (ATRS; MCID = 8 points) and the Patient-Specific Functional Scale (PSFS; MCID = 2.3 points). The results demonstrated that PRP did not meaningfully improve function: for ATRS, the posterior mean difference was –0.549 (95% CrI –4.623 to 3.528), with only 39.6% probability of any benefit and <0.001% probability of a benefit reaching the MCID; for PSFS, the posterior mean was –0.022 (95% CrI –0.612 to 0.567), with 47.0% probability of any benefit and an MCID-level probability of approximately 5×10^{-13}, indicating that clinically meaningful improvement is exceedingly unlikely across all prior assumptions. Key limitations included reliance on aggregate rather than patient-level data, inability to examine responder subgroups, and the fact that only one PRP formulation and dosing protocol was assessed. In conclusion, the Bayesian analysis reinforces that PRP is highly unlikely to offer clinically meaningful functional benefit after Achilles tendon rupture, aligning with prior frequentist findings and further supporting the position that PRP should not be adopted for this indication based on current evidence.

Systematic Reviews and Meta-Analysis

Kobayashi et al. (2026) conducted a meta-analysis synthesizing eight systemic reviews evaluating platelet-rich plasma for acute muscle injuries in athletes, assessing return-to-sport (RTS) outcomes and reinjury risk. Studies were limited to systematic reviews examining adults aged 18-70 with acute muscle injuries treated with PRP versus conservative care and reporting RTS, reinjury, pain or complications within a 12-week follow-up. The outcome criteria focused on RTS, reinjury rates, and treatment-related complications. In pooled analyses, results indicated that PRP was associated with a statistically significant reduction in reinjury risk, with a pooled risk ratio of 0.84 (95% CI, 0.76–0.92; p = 0.01) and no observed heterogeneity ($I^2 = 0\%$), reflecting a consistent protective effect across included studies. Although the pooled estimate for return-to-sport favored PRP, showing an average improvement of –4.43 days, this difference did not reach statistical significance (95% CI, –9.28 to 0.42; p = 0.06). Limitations included heterogeneity in PRP preparation methods, variability in RTS and reinjury definitions, short follow-up periods (<12 weeks), and inconsistent reporting across primary trials, leading to low or very-low certainty ratings for most outcomes aside from reinjury. The authors noted that PRP appears to meaningfully lower reinjury risk and may modestly shorten RTS time, although evidence remains insufficiently standardized to support routine use; further well-designed, standardized trials are needed to clarify long-term benefits and safety.

Karjalainen et al. (2021) outlined a systematic review and meta-analysis of 32 RCTs and quasi-RCTs evaluating autologous whole blood and platelet-rich plasma (PRP) injections for lateral elbow pain. The inclusion criteria captured adult studies comparing autologous blood or PRP with placebo or active comparators, while exclusion criteria removed non-randomized designs and acute traumatic elbow injuries. The outcome criteria focused on pain (0–10 scale), function/disability (0–100 scale), treatment success, withdrawals due to adverse events, and adverse event rates, with three months designated as the primary assessment point. The results, including 2,337 participants, showed no clinically meaningful benefit of autologous blood or PRP over placebo at 3 months for pain (mean difference −0.16, 95% CI −0.60 to 0.29; absolute change 1.6%) or function (mean difference −1.86 on a 0–100 scale, 95% CI −4.97 to 1.25; absolute change 1.9%). Treatment success remained uncertain (65% with placebo vs 67% with injection; RR 1.00, 95% CI 0.83–1.19), and low-certainty evidence indicated no clear difference in adverse events (17% placebo vs 19% injection; RR 1.14, 95% CI 0.76–1.72). Findings were consistent at 6 and 12 months, with no important advantages for pain or function. Limitations included frequent risk of bias related to selection, blinding, and reporting, variability in injection protocols, inadequate reporting of global improvement and quality-of-life outcomes, and unexplained heterogeneity in several analyses. Autologous blood and PRP injections likely offer little to no clinically important improvement for lateral elbow pain, and given the procedural discomfort, cost, and small infection risk, the review found no justification for their use in this condition.

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National and Specialty Organizations

The **Wound Healing Society** updated guidelines on treatment of diabetic foot ulcers state "The evidence is uncertain for the efficacy of therapy with platelet rich plasma as studies report mixed results regarding the benefits of this therapy" (Lavery et al. 2024).

The **International Working Group on the Diabetic Foot (IWGDF) Guidelines** on interventions to enhance healing of foot ulcers in people with diabetes state "With the exception of autologous leucocyte, platelet and fibrin patch we suggest not using autologous platelets therapy (including blook bank derived platelets) as an adjunct therapy to standard of care" (Chen et al. 2023).

A *Clinical Practice Guideline on Management of Osteoarthritis of the Knee (3rd Edition)* published by the **American Academy of Orthopaedic Surgeons** indicates PRP may reduce pain and improve function in patients with symptomatic osteoarthritis of the knee, however the strength of the recommendation is limited, and the recommendation was downgraded two levels because of inconsistent evidence (AAOS 2021).

A guideline published by **Veteran Affairs/Department of Defense** (VA/DoD 2020) states there is insufficient evidence to recommend for or against PRP injections for the treatment of OA of the hip or knee.
The **American College of Rheumatology/Arthritis Foundation** *Guideline for the Management of Osteoarthritis of the Hand, Hip, and Knee* (Kolansinski et al. 2019) gives a strong recommendation against PRP for management of osteoarthritis of the knee or hip. Strong recommendations for management include exercise, weight loss, Tai Chi, oral and topical nonsteroidal anti-inflammatory drugs (NSAIDs), and intraarticular steroids.

The **National Institute of Health (NICE) Guideline** [NG19] on diabetic foot problems recommends against using platelet-rich plasma gel to treat diabetic foot ulcers unless as part of a clinical trial ([1]NICE 2019).

The **National Institute of Health (NICE)** published interventional procedures guidance [IPG637] for platelet-rich plasma injections for knee osteoarthritis which notes that evidence on efficacy is limited in quality. As such, the procedure should only be used with special arrangements and data should be collected either by audit or research ([2]NICE 2019).

CODING & BILLING INFORMATION

CPT (Current Procedural Terminology)

Code	Description
0232T	Injection(s), platelet rich plasma, any site, including image guidance, harvesting and preparation when performed

HCPCS (Healthcare Common Procedure Coding System)

Code	Description
G0460	Autologous platelet rich plasma (PRP) or other blood-derived product for nondiabetic chronic wounds/ulcers (includes, as applicable: administration, dressings, phlebotomy, centrifugation or mixing, and all other preparatory procedures, per treatment)
G0465	Autologous platelet rich plasma (PRP) or other blood-derived product for diabetic chronic wounds/ulcers, using an FDA-cleared device for this indication, (includes, as applicable: administration, dressings, phlebotomy, centrifugation or mixing, and all other preparatory procedures, per treatment)
P9020	Platelet rich plasma, each unit

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APPROVAL HISTORY

04/08/2026	Policy reviewed. No changes to coverage criteria. Summary of Medical Evidence and References updated. IRO Peer Review on March 20, 2026, by a practicing physician board-certified in Orthopedic Surgery.
04/09/2025	Policy reviewed. No changes to coverage criteria. Summary of Medical Evidence and References updated.
04/10/2024	Policy reviewed, no changes to coverage criteria. Summary of Medical Evidence and References updated.
04/13/2023	Policy reviewed, no changes to coverage criteria. Summary of Medical Evidence and References updated.
04/13/2022	Policy reviewed, no changes to coverage criteria. Summary of evidence and references updated. IRO Peer Review on March 18, 2022, by a practicing physician board-certified in Orthopedic Surgery.
04/05/2021	Policy reviewed, no changes to coverage criteria.
06/17/2020	Policy reviewed, no changes to coverage criteria.
06/19/2019	Policy reviewed, no changes to coverage criteria.
09/13/2018	Policy reviewed, no changes to coverage criteria.
09/19/2017	Policy reviewed, no changes to coverage criteria.
09/15/2016	Policy reviewed, no changes to coverage criteria.
12/16/2015	Policy reviewed, no changes to coverage criteria.
10/08/2014	New policy.

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