

Medical Policies



Policy S-225

Number:

Policy Name: Orthopedic Applications of Stem-Cell Therapy

Policy Type: Medical Policy Surgery

Subtype:

Effective 09-15-2025 End Date: 11-02-2025

Date:

Description

Mesenchymal stem cells (MSCs) have the capability to differentiate into the variety of tissue types, including musculoskeletal tissues. MSCs are associated with the blood vessels within bone marrow, synovium, fat, and muscle, where they can be mobilized for endogenous repair as occurs with healing of bone fractures. Stimulation of endogenous MSCs is the basis of procedures such as bone marrow stimulation (i.e., microfracture) and harvesting/grafting of autologous bone for fusion.

MSCs may also be referred to as bone marrow aspirate or adipose derived stem cells.

Note: Currently, there are no products using engineered or expanded MSCs that have been approved by the FDA for orthopedic applications.

Policy Application

All claims submitted under this policy's section will be processed according to the policy effective date and associated revision effective dates in effect on the date of service.

Diagnosis Codes

Not Applicable

CURRENT CODING

CPT:

38206	BLD-DRV HEMATOP PROGEN CELL HRVG TRNSPLJ AUTOL	Medicaid Expansion
38230	BONE MARROW HARVEST TRANSPLANTATION ALLOGENEIC	Medicaid Expansion
38232	BONE MARROW HARVEST TRANSPLANTATION AUTOLOGOUS	Medicaid Expansion
38241	TRNSPLJ AUTOLOGOUS HEMATOPOIETIC CELLS PER DONOR	Medicaid Expansion
38206	BLD-DRV HEMATOP PROGEN CELL HRVG TRNSPLJ AUTOL	Commercial
38230	BONE MARROW HARVEST TRANSPLANTATION ALLOGENEIC	Commercial
38232	BONE MARROW HARVEST TRANSPLANTATION AUTOLOGOUS	Commercial
38241	TRNSPLJ AUTOLOGOUS HEMATOPOIETIC CELLS PER DONOR	Commercial

HCPCS:

A4649	Surgical supplies	Medicaid Expansion
L8699	Prosthetic implant nos	Medicaid Expansion
A4649	Surgical supplies	Commercial
L8699	Prosthetic implant nos	Commercial

References

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- 3. Lamo-Espinosa JM, Mora G, Blanco JF, et al. Intra-articular injection of two different doses of autologous bone marrow mesenchymal stem cells versus hyaluronic acid in the treatment of knee osteoarthritis: Long-term follow up of a multicenter randomized controlled clinical trial (phase I/II). *J Transl Med*. 2018;16(1):213.
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- 6. Yang Y, Lin H, Shen H, et al. Mesenchymal stem cell-derived extracellular matrix enhances chondrogenic phenotype of and cartilage formation by encapsulated chondrocytes in vitro and in vivo. *Acta Biomater*. 2018;15;69:71-82.
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- 12. Foundation Guideline for the Management of Osteoarthritis of the Hand, Hip, and Knee. Arthritis Care Res (Hoboken). 2020;72(2):149-162.
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- 16. Freitag, J., Bates, D., Wickham, J., Shah, K., Huguenin, L., Tenen, et. al. Adipose-derived mesenchymal stem cell therapy in the treatment of knee osteoarthritis: A randomized controlled trial. *Regenerative medicine*. 2019; *14*(3), 213-230.

ND Committee Review

Internal Medical Policy Committee 3-16-2020 Annual Review Effective May 4, 2020

Internal Medical Policy Committee 3-17-2021 Annual Review Effective May 3,2021

Internal Medical Policy Committee 3-23-2022 Revision *Effective May 2,2022*

- o Updated Criteria, and
- o Updated Professional Statement.

Internal Medical Policy Committee 3-23-2023 Annual Review- no changes in criteria *Effective May* 1,2023

Internal Medical Policy Committee 7-26-2023 Revision with Coding - Effective July 03, 2023

- Removed Procedure Codes 20932, 20933, 20934
- Added two (2) new Procedure Codes A4694, L8699
- *Added* this statement 'MSCs may also be referred to as bone marrow aspirate or adipose derived stem cells.'

Internal Medical Policy Committee 7-16-2024 Annual Review-no changes in criteria *Effective September 2, 2024*

- Added coverage statement; and
- Added Policy Application

Disclaimer

Current medical policy is to be used in determining a Member's contract benefits on the date that services are rendered. Contract language, including definitions and specific inclusions/exclusions, as well as state and federal law, must be considered in determining eligibility for coverage. Members must consult their applicable benefit plans or contact a Member Services representative for specific coverage information. Likewise, medical policy, which addresses the issue(s) in any specific case, should be considered before utilizing medical opinion in adjudication. Medical technology is constantly evolving, and the Company reserves the right to review and update medical policy periodically.