



MASSACHUSETTS

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Medical Policy

Suture Button Suspensionplasty Fixation System for Thumb Carpometacarpal Osteoarthritis

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Policy Number: 031

BCBSA Reference Number: 7.01.176 (For Plan internal use only)

NCD/LCD: N/A

Related Policies

None

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Suture button suspensionplasty for thumb carpometacarpal joint osteoarthritis is considered [INVESTIGATIONAL](#).

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	This is not a covered service.
Commercial PPO and Indemnity	This is not a covered service.
Medicare HMO BlueSM	This is not a covered service.
Medicare PPO BlueSM	This is not a covered service.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

There are not any specific codes for this procedure.

Description

Thumb Carpometacarpal Joint Osteoarthritis

In the thumb, the most common site for arthritis to develop is in the joint at the base of the thumb, also known as the carpometacarpal (CMC) joint. The incidence of CMC joint osteoarthritis is estimated to be 5% to 33% among adults in their 50s and 60s, and rises with age. It is more common in postmenopausal women. Pain and functional limitations, especially when pinching or gripping objects, can significantly interfere with quality of life.¹

First-line treatment of CMC joint osteoarthritis includes non-surgical measures such as activity modifications, rest, hand orthosis, anti-inflammatory medications, physical therapy, and corticosteroid injections.² Surgery is indicated when conservative treatment fails to provide sufficient relief and functional improvement. Although thumb CMC joint osteoarthritis is often staged using radiological classification systems (e.g., the Eaton-Littler classification), the severity of symptoms does not necessarily correspond to radiographic findings; therefore a decision to proceed to surgery is based on symptoms and degree of disability.³

Multiple surgical techniques to treat thumb CMC osteoarthritis have been developed but there is currently no consensus on the optimal approach.^{3,4,5} The most common surgical technique is removal of the trapezium bone at the base of the thumb (trapeziectomy). Trapeziectomy can be performed alone but is most commonly performed in conjunction with reconstruction of the ligament that holds the bones between the thumb and index finger together, and filling the space left behind by the removed trapezium with tendon harvested from the forearm to support the thumb. This procedure is known as trapeziectomy with ligament reconstruction and tendon interposition (LRTI). Either the flexor carpi radialis (FCR) tendon or abductor pollicis longus (APL) tendon is used in this procedure.

Trapeziectomy using suture button suspensionplasty is proposed as a less invasive alternative to trapeziectomy with LRTI. Instead of using tendon to support the thumb, the procedure suspends the first metacarpal to the second using a strong suture material (fiberwire) passed through both bones. A button on each of the metacarpals is attached to either end of the suture to secure the bones in the correct position.

Summary

Description

In the thumb, the most common site for arthritis to develop is in the joint at the base of the thumb, also known as the carpometacarpal (CMC) joint. Pain and functional limitations associated with symptomatic thumb CMC joint osteoarthritis, especially when pinching or gripping objects, can significantly interfere with quality of life. Surgery is indicated when conservative measures fail to provide sufficient relief and functional improvement. There is currently no consensus on the optimal surgical approach, but the most frequently used procedure is trapeziectomy with ligament reconstruction and tendon interposition (LRTI). Trapeziectomy using suture button suspensionplasty (SBS) is proposed as a less invasive alternative to trapeziectomy with LRTI.

Summary of Evidence

For individuals with thumb carpometacarpal (CMC) joint osteoarthritis who receive trapeziectomy with suture button suspensionplasty (SBS), the evidence includes 1 randomized controlled trial (RCT), 1 prospective, comparative observational study, and multiple nonrandomized, retrospective studies, and a systematic review. Relevant outcomes are symptoms, functional outcomes, and adverse events. A single-center RCT compared trapeziectomy with SBS to trapeziectomy with ligament reconstruction and tendon interposition (LRTI) in 76 individuals. The RCT had multiple methodologic limitations, including lack of

blinding, inappropriate handling of missing data, and no pre-specification of outcome measures. Pain and functional outcomes did not differ between intervention groups after 40 months of follow-up, although operative and recovery time was shorter in the suspensionplasty group. A prospective cohort study of 112 consecutive individuals who underwent suture button suspensionplasty or LRTI found similar improvements in pain scores and function with both procedures. but was limited by a lack of blinding and randomization. Retrospective studies reported improvements in pain and function but are limited by their design. Additionally, multiple surgical techniques to treat thumb CMC joint osteoarthritis have been developed but there is currently no consensus on the optimal approach, limiting conclusions that can be drawn from comparative studies. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Policy History

Date	Action
3/2024	New medical policy describing investigational indications. Suture button suspensionplasty for thumb carpometacarpal joint osteoarthritis is considered investigational. Effective 3/1/2024.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

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