



Computer Assisted Navigation, Surgical 233

Table of Content

Description & Definitions

Criteria

Document History

Coding

Special Notes

References

Keywords

Effective Date 9/1/2025

Next Review Date 6/2026

Coverage Policy Surgical 233

<u>Version</u> 3

Member-specific benefits take precedence over medical policy and benefits may vary across plans. Refer to the individual's benefit plan for details *.

Description & Definitions:

Computer-assisted navigation (CAN) is the use of computer enabled tracking systems to facilitate alignment in a variety of surgical procedures. The goal of CAN is to increase surgical accuracy. CAN devices may be image-based or non-image based. Image-based devices use preoperative computed tomography (CT) scans and operative fluoroscopy to direct implant positioning. Non-image-based devices use probes and signaling transducers to transmit signals from anatomic positions to a dedicated computer. Computer-assisted navigation involves three steps: data acquisition, registration, and tracking. The data can be acquired from fluoroscopy, computed tomography (CT) scans or magnetic resonance imaging (MRI) scans, or imageless systems. Registration is relating the images to the anatomical position of the surgical area using "fiduciary markers". Tracking is the feedback from the measurement devices regarding the orientation and relative position of tools to bone anatomy.

Criteria:

Computer assisted navigation is considered medically necessary for **1 or more** of the following:

- When used in conjunction with most intracerebral procedures, excluding routine shunt procedures.
- When used for the **1 or more** of the following extracranial head and neck procedures:
 - Revision endoscopic sinus surgery
 - Frontal or sphenoid sinus surgery when there is documented loss of or altered anatomic and marks, congenital deformities or severe trauma
 - Significantly distorted sinus anatomy of developmental, postoperative or traumatic origin
 - Extensive sino-nasal polyposis of sufficient severity to create a need for the precision localization and navigation assistance
 - Pathology involving the frontal, posterior ethmoid or sphenoid sinuses
 - Disease abutting the skull base, orbit, optic nerve or carotid artery
 - o Lateral skull base surgery where navigational planning and assistance is required
 - CSF rhinorrhea or conditions where there is a skull base defect
 - Transsphenoidal surgery
 - Benign and malignant sino-nasal neoplasms of sufficient size or high-risk location

There is insufficient scientific evidence to support the medical necessity of computer assisted navigation for the following for as they are not shown to improve health outcomes upon technology review:

Surgical 233 Page 1 of 4

- Computer-assisted surgical navigation for musculoskeletal procedures is not medically necessary due to lack of proven clinical utility.
- Computer-assisted surgical navigation for spinal procedures is not medically necessary due to lack of proven clinical utility.

Document History:

Revised Dates:

2023: October

Reviewed Dates:

 2025: June – Implementation date of September 1, 2025. No changes and references updated.

2024: June – no changes

Origination Date: 1/1/2024

Coding:

Medically necessary with criteria:

Coding	Description
61781	Stereotactic computer-assisted (navigational) procedure; cranial, intradural (list separately in addition to code for primary procedure)
61782	Stereotactic computer-assisted (navigational) procedure; cranial, extradural (list separately in addition to code for primary procedure)
61783	Stereotactic computer-assisted (navigational) procedure; spinal (list separately in addition to code for primary procedure)
0054T	Computer-assisted musculoskeletal surgical navigational orthopedic procedure, with image guidance based on fluoroscopic images (list separately in addition to code for primary procedure)
0055T	Computer-assisted musculoskeletal surgical navigational orthopedic procedure, with image guidance based on CT/MRI images (list separately in addition to code for primary procedure)
20985	Computer-assisted surgical navigational procedure for musculoskeletal procedures, imageless (list separately in addition to code for primary procedure)

Considered Not Medically Necessary:

Coding	Description
	None

U.S. Food and Drug Administration (FDA) - approved only products only.

The preceding codes are included above for informational purposes only and may not be all inclusive. Additionally, inclusion or exclusion of a treatment, procedure, or device code(s) 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 of these services as it applies to an individual member.

Surgical 233 Page 2 of 4

Special Notes: *

- Coverage:
 - See the appropriate benefit document for specific coverage determination. Member specific benefits take precedence over medical policy.
- Application to products:
 - Policy is applicable to Sentara Health Plan Commercial products.
- Authorization requirements:
 - Pre-certification by the Plan is required.
- Special Notes:
 - Commercial
 - Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving, and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.
 - Services mean both medical and behavioral health (mental health) services and supplies unless We specifically tell You otherwise. We do not cover any services that are not listed in the Covered Services section unless required to be covered under state or federal laws and regulations. We do not cover any services that are not Medically Necessary. We sometimes give examples of specific services that are not covered but that does not mean that other similar services are covered. Some services are covered only if We authorize them. When We say You or Your We mean You and any of Your family members covered under the Plan. Call Member Services if You have questions.

References:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

28th Edition. (2025). Retrieved 5 2025, from MCG: https://careweb.careguidelines.com/ed28/

(2025). Retrieved 5 2025, from CMS: https://www.cms.gov/medicare-coverage-database/search-results.aspx?keyword=Computer-

 $\underline{Assisted \%20 Surgical \%20 Navigation \& keyword Type=all \& areald=all \& doc Type=NCA, CAL, NCD, MEDCAC, TA, MCD, \\ \underline{6,3,5,1,F,P\& contract Option=all \& sort By=relevance}$

(2025). Retrieved 5 2025, from Hayes:

https://evidence.hayesinc.com/search?q=%257B%2522text%2522:%2522Computer-

<u>Assisted%2520Surgical%2520Navigation%2522,%2522title%2522:null,%2522termsource%2522:%2522searchbarw2522,%2522page%2522:%257B%2522page%2522:0,%2522size%2522:50%257D,%2522type%2522:%25</u>

(2025). Retrieved 5 2025, from NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines): https://www.nccn.org/guidelines/category_1

(2025). Retrieved 5 2025, from UpToDate: <a href="https://www.uptodate.com/contents/search?search?computer-assisted%20navigational%20&sp=0&searchType=PLAIN_TEXT&source=USER_INPUT&searchControl=TOP_PU_LLDOWN&autoComplete=false

ADVANCED IMAGING GUIDELINES. (2025, 1). Retrieved 1 2025, from Evolent: https://www1.radmd.com/sites/default/files/2024-12/2025%20Evolent%20Advanced%20Imaging%20Guidelines.pdf

Computer-assisted navigation in complex cervical spine surgery. (2020, 3). Retrieved 5 2025, from Journal of Spine Surgery: https://pmc.ncbi.nlm.nih.gov/articles/PMC7154370/

Surgical 233 Page 3 of 4

Position Statement: Intra-Operative Use of Computer Aided Surgery. (2021, 4). Retrieved 5 2025, from American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS): https://www.entnet.org/resource/position-statement-intra-operative-use-of-computer-aided-surgery/

Provider Manuals. (2025). Retrieved 4 2025, from DMAS: https://www.dmas.virginia.gov/for-providers/

Surgical Management of Osteoarthritis of the Knee Evidence-Based Clinical Practice Guideline. (2022). Retrieved 5 2025, from American Association of Orthopedic Surgeons (AAOS): https://www.aaos.org/globalassets/quality-and-practice-resources/surgical-management-knee/smoak2cpg.pdf

Keywords:

Computer-Assisted Surgical Systems, CAN, Surgical navigation systems, computed tomography computer-aided navigation (CT-CAN), Stereotactic computer-assisted (navigational) procedure, Robotically-assisted surgical (RAS) devices, RAS, Computer-Aided Navigation, Computer-assisted tumor surgery (CATS)

Surgical 233 Page 4 of 4