

Open Treatment of Rib Fracture with Internal Fixation

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

Purpose:

This policy addresses the medical necessity of Open Treatment of Rib Fracture with Internal Fixation.

Description & Definitions:

Open Treatment of Rib Fracture with Internal Fixation (ORIF) is the surgical stabilization of rib fractures (SSRF), a treatment for multiple broken ribs.

Criteria:

Open Treatment of Rib Fracture with Internal Fixation is considered medically necessary for **1 or more** of the following:

- Individual with flail chest
- Multiple (1 or more), severe (bicortical) /offset rib fractures or displaced rib fractures
- Chronic nonunion of rib fracture with persistent disabling pain refractory to nonoperative management
- Failed to wean from the ventilator, with or without flail chest

Open Treatment of Rib Fracture with Internal Fixation is considered **not medically necessary** for any use other than those indicated in clinical criteria, to include but not limited to:

- **Contraindications:**
 - Shock/Ongoing resuscitation
 - Severe Traumatic Brain Injury (TBI)/Intracranial Hypertension
 - Acute myocardial infarction
 - Active or latent infection at the time of implantation
 - Sepsis
 - Metal sensitivity

Coding:

Medically necessary with criteria:

Coding	Description
21811	Open treatment of rib fracture(s) with internal fixation, includes thoracoscopic visualization when performed, unilateral; 1-3 ribs

21812	Open treatment of rib fracture(s) with internal fixation, includes thoracoscopic visualization when performed, unilateral; 4-6 ribs
21813	Open treatment of rib fracture(s) with internal fixation, includes thoracoscopic visualization when performed, unilateral; 7 or more ribs

Considered Not Medically Necessary:

Coding	Description
	None

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

Document History:

Revised Dates:

- 2023: June
- 2019: November

Reviewed Dates:

- 2023: 2022: June
- 2021: July
- 2020: August

Effective Date:

- February 2019

References:

Including but not limited to: Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

(2023). Local Coverage Article. Fracture of Ribs with Internal Fixation. Palmetto GBA. Article A53931. (2.26.18). Retrieved 6.13.2023. <https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleId=53931>

(2023). Forkin, A., Hus, N., Wycech, J., Rodriquez, E., Puente, I. Surgical Stabilization of Rib Fractures. Essential Surgical Techniques. National Library of Medicine. (4.2020). Retrieved 6.13.2023. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7478329/>

(2023). US Food and Drug Administration. MAUDE Adverse Event Report: BIOMET MICROFIXATION RIBFIX BLU SYSTEM SCREW, SELF-DRILLING, CANCELLOUS X-DRIVE LOCKING 2.4 X 10MM PLATE, FIXATION, BONE. (9.23.2020). Retrieved 6.13.2023. https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfmaude/detail.cfm?mdrfoi__id=11121474&pc=HRS

(2023). Search or Open Treatment Rib Fracture, Rib Fracture, Flail Chest. Hayes, a symplr company. (2023). Retrieved 6.13.2023. https://evidence.hayesinc.com/search?q=%257B%2522text%2522:%2522open%2520treatment%2520rib%2520fracture%2522,%2522title%2522:null,%2522termsource%2522:%2522searchbar%2522,%2522page%2522:%257B%2522page%2522:0,%2522size%2522:50%257D,%2522type%2522:%2522all%2522,%2522sources%2522:%255B%2522*%2522%255D,%2522sorts%2522:%255B%257B%2522field%2522:%2522_score%2522,%2522direction%2522:%2522desc%2522%257D%255D,%2522filters%2522:%255B%255D%257D

(2023). Thoracic Surgery or Procedure GRG. GRG: SG-TS (ISC GRG). (2023). Retrieved 6.13.2023. <https://careweb.careguidelines.com/ed26/index.html>

(2023). Fee Schedule. Search CPT Codes. Virginia's Medicaid Program. Department of Medical Assistance Services. An Agency of the Commonwealth of Virginia. (2023). Retrieved 6.13.2023.
<https://www.dmas.virginia.gov/for-providers/rates-and-rate-setting/procedure-fee-files-cpt-codes/#searchCPT>

(2023). Carelon. Clinical Guidelines and Pathways. (2023). Retrieved 6.13.2023.
<https://guidelines.carelonmedicalbenefitsmanagement.com/no-search-results-found/>

Apampa, A., Ali, A., Kadir, B., & Ahmed, Z. (2021, Feb 06). Safety and effectiveness of surgical fixation versus non-surgical methods for the treatment of flail chest in adult populations: a systematic review and meta-analysis. Retrieved May 18, 2022, from PubMed: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7866961/>

Pieracci, F., Majercik, S., Ali-Osman, F., Ang, D., Doben, A., Edwards, J., & French, B. (2017, Feb). Consensus statement: Surgical stabilization of rib fractures rib fracture colloquium clinical practice guidelines. Retrieved May 16, 2022, from PubMed: <https://pubmed.ncbi.nlm.nih.gov/27912931/>

Rib Fracture. (2022, Feb 16). Retrieved May 16, 2022, from DynaMed: https://www.dynamedex.com/condition/rib-fracture#TOPIC_L5X_XNF_RMB

(2021). Retrieved Jun 21, 2021, from EncoderPro: <https://www.encoderpro.com>

Application of 3D printing and framework internal fixation technology for high complex rib fractures. (2021, Feb 15). Retrieved Jun 22, 2021, from Journal of Cardiothoracic Surgery 2: <https://cardiothoracicsurgery.biomedcentral.com/articles/10.1186/s13019-020-01377-8#citeas>

CHEST WALL INJURY SOCIETY GUIDELINE FOR SSRF. (2020, Nov). Retrieved Jun 21, 2021, from Chest Wall Injury Society: <https://cwisociety.org/wp-content/uploads/2020/05/CWIS-SSRF-Guideline-01102020.pdf>

Special Notes: *

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.

Keywords:

Open Treatment of Rib Fracture with Internal Fixation, SHP Surgical 217, flail chest, broken rib, MatrixRIB Fixation System, RibLoc Rib Fracture Plating System, RibFix Blu Thoracic Fixation System