Clinical Practice Guideline: **Casting and Splinting**

Date of Implementation: **April 19, 2012**

Program: **Specialty**

GUIDELINES

American Specialty Health – Specialty (ASH) considers:

I. Casting or splinting for non-displaced fractures, muscle spasticity, and contracture when performed by an appropriately trained practitioner to properly set and stabilize bone or improve movement patterns is considered medically necessary. Casting should not be utilized for basic contracture management issues.

II. Air Casts are considered medically necessary for treatment of fractures or other injuries (i.e., sprains, torn ligaments). Air Casts (air splints) are used as an alternative to plaster casts to immobilize an elbow, ankle, or knee. Air Casts are considered experimental and investigational for other indications because their effectiveness for indications other than the one listed above has not been established.

III. Casting of a fracture or severe sprain is considered medically necessary.

IV. Casting following surgical procedures is also considered medically necessary.

V. Certain orthopedic problems are routinely treated with splints or splint-like devices. The following are considered medically necessary: acromio-clavicular splint (also called a Zimmer splint), carpal tunnel splints, clavicle figure-8 splint, Denis Browne splint for children with clubfoot or metatarsus valgus to maintain and correct abduction, finger splints and shoulder immobilizers.

VI. Dynamic splinting devices (e.g., Dynasplint®) for the knee, elbow, forearm, wrist, ankle, or finger are medically necessary if one of the following is met:

a) As an adjunct to physical and occupational therapy when patient has demonstrated and documented signs and symptoms of significant motion loss and stiffness in the sub-acute injury or post-operative period (greater than or equal to 3 weeks but less than or equal to 4 months after injury or operation); or

b) For patients with previously demonstrated and documented history of motion loss and stiffness in a joint, has had a surgery or procedure performed to improve motion of that joint, and are in the acute post-

CPG 145 Revision 14 – S
Casting and Splinting
Revised – July 18, 2024
To CQT for review 06/10/2024
CQT reviewed 06/10/2024
To QIC for review and approval 07/02/2024
QIC reviewed and approved 07/02/2024
To QOC for review and approval 07/18/2024
QOC reviewed and approved 07/18/2024

procedure/surgical period following a second or subsequent procedure or surgery; or

c) For patients who are unable to benefit from standard physical and occupational therapy modalities because of inability to exercise. If there is no significant change in range of motion after a 4-month period, use of the device is considered as maintenance and thus, not medically necessary, and appropriate.

Dynamic splinting devices are also considered medically necessary in conjunction with botulinum toxin injections and physical and occupational therapy, for the management of orthopedic conditions with associated joint contractures and neurologic disorders with associated spasticity and contractures (e.g., post-CVA, traumatic brain injury).

Use of dynamic splinting devices for joints and/or situations other than those indicated above, and in the management of chronic joint stiffness and/or chronic or fixed contractures, is considered unproven.

Note:
Although there is inadequate data published in the peer reviewed medical literature regarding the effectiveness of dynamic splinting devices in improving range of motion, this type of device has been widely used in the orthopedic and physical and occupational therapy communities for select patient population. It is on the basis of national community standards that the use of dynamic splinting devices in specific clinical situations (as indicated in the policy statement above) is considered reasonable and medically appropriate.

The procedures listed are payable when the cast or splint is a replacement procedure which is medically necessary and used during or after the period of follow-up care, or when the cast or splint application is an initial service performed without a restorative treatment or procedure(s) to stabilize or protect a fracture, injury, or dislocation and/or to afford comfort to the patient.

When a surgical procedure on the musculoskeletal system is performed and a cast or splint is applied to the area of the procedure, there is no separate allowance for the initial application of the cast or splint.

An individual who applies the initial cast or splint and also assumes all of the subsequent fracture, dislocation, or injury care cannot use the application of casting codes as an initial service, since the first cast/splint application is included in the treatment of fracture and/or dislocation codes.

If the cast application or splinting is provided as an initial service in which no other procedure or treatment is performed or is expected to be performed by an individual rendering the initial care only, (e.g., casting of a sprained ankle or knee), use the casting and/or cast supply code(s) (Q4001-Q4051) as well as an evaluation and management (E/M) code as appropriate.

An E/M service, including emergency department E/M, may be reported with a casting/splinting/strapping CPT® code if and only if the E/M service is significant and separately identifiable.

When the cast or splint is a replacement for the first cast or splint within or after the follow-up period, the appropriate code for the cast or splint application is reported. An E/M service rendered with the reapplication of a cast or splint is not reported separately. However, an E/M code on the day of reapplication could be separately billed and paid only if a significant and separately identifiable service (e.g., unrelated problem) was also addressed. In that situation, the CPT® –25 modifier should be added to the E/M code and the diagnosis code should identify the unrelated condition(s). When reporting reapplication of a cast or splint, removal of the old cast or splint is included.

CPT® codes for closed, percutaneous, or open treatment of fractures or dislocations include the application of casts, splints, or strapping. CPT® codes for casting/splinting/strapping shall not be reported separately.

If a physician treats a fracture, dislocation, or injury with an initial cast, strap, or splint and also assumes the follow-up care, the provider/supplier cannot report the casting/splinting/strapping CPT® codes since these services are included in the fracture and/or dislocation CPT® codes.

Supplies for casting or splinting are only considered medically necessary if the need for casting or splinting meets the criteria for medical necessity.

CPT® Codes and Descriptions

CPT® Code	CPT® Code Description
29010	Application of Risser jacket, localizer, body; only
29015	Application of Risser jacket, localizer, body; including head
29035	Application of body cast, shoulder to hips;
29040	Application of body cast, shoulder to hips; including head, Minerva type

CPT® Code	CPT® Code Description
29044	Application of body cast, shoulder to hips; including 1 thigh
29046	Application of body cast, shoulder to hips; including both thighs
29049	Application, cast; figure-of-eight
29055	Application, cast; shoulder spica
29058	Application, cast; plaster Velpeau
29065	Application, cast; shoulder to hand (long-arm)
29075	Application, cast; elbow to finger (short arm)
29085	Application, cast; hand and lower forearm (gauntlet)
29086	Application, cast; finger (e.g., contracture)
29105	Application of long arm splint (shoulder to hand)
29125	Application of short arm splint (forearm to hand); static
29126	Application of short arm splint (forearm to hand); dynamic
29130	Application of finger splint; static
29131	Application of finger splint; dynamic
29305	Application of hip spica cast; 1 leg
29325	Application of hip spica cast; 1 and 1/2 spica or both legs
29345	Application of long leg cast (thigh to toes)
29355	Application of Long leg cast (thigh to toes); walker or ambulatory type
29358	Application of long leg cast brace
29365	Application of cylinder cast (thigh to ankle)
29405	Application of short leg cast (below knee to toes)

CPT® Code	CPT® Code Description
29425	Application of short leg cast (below knee to toes); walking or ambulatory type
29435	Application of patellar tendon bearing (PTB) cast
29440	Adding walker to previously applied cast
29445	Application of rigid total contact leg cast
29450	Application of clubfoot cast with molding or manipulation, long or short leg
29505	Application of long leg splint (thigh to ankle or toes)
29515	Application of short leg splint (calf to foot)
29700	Removal or bivalving; gauntlet, boot or body cast
29705	Removal or bivalving; full arm or full leg cast
29710	Removal or bivalving; shoulder or hip spica, Minerva, or Risser jacket, etc.
29720	Repair of spica, body cast or jacket
29730	Windowing of cast
29740	Wedging of cast (except clubfoot casts)
29750	Wedging of clubfoot cast

HCPCS Codes and Descriptions*

HCPCS Code	HCPCS Code Description
A4570	Splint
A4580	Cast supplies (e.g., plaster)
A4590	Special casting material (e.g., fiberglass)
E1800	Dynamic adjustable elbow extension/flexion device, includes soft interface material
E1801	Static progressive stretch elbow device, extension and/or flexion, with or without range of motion adjustment, includes all components and accessories

HCPCS Code	HCPCS Code Description
E1802	Dynamic adjustable forearm pronation/supination device, includes soft interface material
E1805	Dynamic adjustable wrist extension / flexion device, includes soft interface material
E1806	Static progressive stretch wrist device, flexion and/or extension, with or without range of motion adjustment, includes all components and accessories
E1810	Dynamic adjustable knee extension / flexion device, includes soft interface material
E1811	Static progressive stretch knee device, extension and/or flexion, with or without range of motion adjustment, includes all components and accessories
E1812	Dynamic knee, extension/flexion device with active resistance control
E1815	Dynamic adjustable ankle extension/flexion device, includes soft interface material
E1816	Static progressive stretch ankle device, flexion and/or extension, with or without range of motion adjustment, includes all components and accessories
E1818	Static progressive stretch forearm pronation / supination device, with or without range of motion adjustment, includes all components and accessories
E1820	Replacement soft interface material, dynamic adjustable extension/flexion device
E1821	Replacement soft interface material/cuffs for bi-directional static progressive stretch device
E1825	Dynamic adjustable finger extension/flexion device, includes soft interface material
E1830	Dynamic adjustable toe extension/flexion device, includes soft interface material
E1831	Static progressive stretch toe device, extension and/or flexion, with or without range of motion adjustment, includes all components and accessories
E1840	Dynamic adjustable shoulder flexion / abduction / rotation device, includes soft interface material
E1841	Static progressive stretch shoulder device, with or without range of motion adjustment, includes all components and accessories

HCPCS Code	HCPCS Code Description
L0700	Cervical-thoracic-lumbar-sacral-orthoses (CTLSO), anterior-posterior-lateral control, molded to patient model, (minerva type)
L0710	CTLSO, anterior-posterior-lateral-control, molded to patient model, with interface material, (minerva type)
L4370	Pneumatic full leg splint, prefabricated, off-the-shelf
Q4049	Finger splint, static
Q4051	Splint supplies, miscellaneous (includes thermoplastics, strapping, fasteners, padding and other supplies)
S8450	Splint, prefabricated, digit (specify digit by use of modifier)
S8451	Splint, prefabricated, wrist or ankle
S8452	Splint, prefabricated, elbow

*This list includes common examples of related HCPCS codes and is not meant to be all-inclusive. This list may include HCPCS not applicable to Medicare. Medicare guidelines should be followed when applicable.

Casting may include other applications as medically necessary (e.g., CPT® code 29445). Refer to ASH clinical policy guideline *Rigid Total Contact Leg Cast (CPG 227 - S)* for CPT® code 29445.

For information on strapping and taping, see the *Strapping and Taping (CPG 143 – S)* clinical practice guideline.

INTRODUCTION

A cast is a "rigid dressing, molded to the body while pliable and hardening as it dries," that provides firm support; it does not allow movement. A splint is any stiff device attached to a limb in order to discourage movement. There are two types of splints: static or dynamic. Static splints provide full immobilization, while dynamic splints allow some movement. Casting or splinting of non-displaced fracture(s) to properly set and stabilize bone for healing is indicated when performed by an appropriately trained health care practitioner. Medical necessity must be established via confirmatory radiological findings. The casting material used in fracture care can be either fiberglass or plaster. The choice of material is dictated by the individual situation and is left to the discretion of the treating doctor.

Casting and splinting techniques used by practitioners for positioning and stretching are medically necessary when an improvement can be noted in an individual's movement patterns and skills or when increasing available range of motion is necessary. For example, a spastic hand can be casted or splinted to facilitate relaxation of the fingers. Serial casting or splinting can be essential for individuals with traumatic brain injury-induced spasticity, cerebrovascular accident (CVA), contractures, and other conditions. Casting or splinting goals should objectively indicate expectation of progress.

Dynamic splinting devices are spring-loaded, adjustable devices designed to provide low-load prolonged stretch while patients are asleep or at rest. Dynamic splinting devices are available for elbow, wrist, fingers, knee, ankle, and toes. These units are being marketed for the treatment of joint stiffness due to immobilization or limited range of motion (ROM) as a result of fractures, dislocations, tendon and ligament repairs, joint arthroplasties, total knee replacements, burns, rheumatoid arthritis, tendon releases, brain and spinal cord injuries, cerebral palsy (CP), multiple sclerosis, and other traumatic and non-traumatic disorders. Dynamic splinting is often used post-operatively for the treatment of motion loss and stiffness/ in the knee, elbow, wrist, or finger. It is not generally used in other joints such as the hip, ankle, or foot. There are several types of mechanical stretching devices that have been developed to restore range of motion to a joint.

1. Dynamic Splinting Devices – these are spring-loaded low load prolonged stretch devices that apply continuous stretch to the affected joint. The patient may adjust the tension of the spring but otherwise no patient intervention is required. Examples include the Dynasplint®, Ultraflex, LMB Pro-Glide and EMPI Advance.
2. Flexionators and Extensionators – these are patient-controlled bi-directional static progressive stretch devices intended to provide alternating stretching and relaxation of the affected joint. Examples include the ERMI Shoulder Flexionater, ERMI Elbow Extensionater, and ERMI Knee/Ankle Flexionater. Also included in this category are the pronator/supinator devices.
3. Joint Active System (JAS) Splints – these devices apply static progressive stretch in which the patient manually increases the angle to which the device applies to the affected joint. Examples include the JAS Shoulder, JAS Elbow, and JAS Knee.

DOCUMENTATION REQUIREMENTS TO SUBSTANTIATE MEDICAL NECESSITY

"Medically necessary" or "medical necessity" shall mean health care services that a Healthcare Provider, exercising prudent clinical judgment, would provide to a patient for the purpose of evaluating, diagnosing, or treating an illness, injury, disease or its symptoms, and that are (a) in accordance with generally accepted standards of medical practice; (b) clinically appropriate in terms of type, frequency, extent, site, and duration; and considered effective for the patient's illness, injury, or disease; and (c) not primarily for the convenience of the patient or healthcare provider, and not more costly than an alternative service or sequence of services at least as likely to produce equivalent

therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury, or disease.

More than 8-10 visits for evaluation, treatment, modification, and caregiver education for contracture casting would generally not be considered medically necessary without significant documentation.

PRACTITIONER SCOPE AND TRAINING

Practitioners should practice only in the areas in which they are competent based on their education, training, and experience. Levels of education, experience, and proficiency may vary among individual practitioners. It is ethically and legally incumbent on a practitioner to determine where they have the knowledge and skills necessary to perform such services and whether the services are within their scope of practice.

It is best practice for the practitioner to appropriately render services to a patient only if they are trained to competency, equally skilled, and adequately competent to deliver a service compared to others trained to perform the same procedure. If the service would be most competently delivered by another health care practitioner who has more skill and training, it would be best practice to refer the patient to the more expert practitioner.

Best practice can be defined as a clinical, scientific, or professional technique, method, or process that is typically evidence-based and consensus driven and is recognized by a majority of professionals in a particular field as more effective at delivering a particular outcome than any other practice (Joint Commission International Accreditation Standards for Hospitals, 2020).

Depending on the practitioner's scope of practice, training, and experience, a patient's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is essential for the practitioner to refer the patient for appropriate co-management (e.g., to their primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* policy for information.

References

American Medical Association. (current year). *Current Procedural Terminology (CPT) current year* (rev. ed.). Chicago: AMA

American Medical Association (current year). HCPCS Level II. American Medical Association

American Occupational Therapy Association. Retrieved May 20, 2024, from www.aota.org

American Physical Therapy Association. Retrieved May 20, 2024 from www.apta.org

Centers for Medicare & Medicaid Services (CMS). Chapter IV Surgery: Musculoskeletal System CPT Codes 20000-29999 for Medicare National Correct Coding Initiative Policy Manual. 2023. Retrieved May 20, 2024from https://www.cms.gov/files/document/medicare-ncci-policy-manual-2023-chapter-4.pdf

Falk N, Pendergraph B, Meredith TJ, Le G, Hornsby H. Managing Fractures and Sprains. Prim Care. 2022;49(1):145-161. doi:10.1016/j.pop.2021.10.007

Furia JP, Willis FB, Shanmugam R, Curran SA. Systematic review of contracture reduction in the lower extremity with dynamic splinting. Adv Ther. 2013;30(8):763-770. doi:10.1007/s12325-013-0052-1

Guide to Physical Therapist Practice 4.0. Alexandria, VA: American Physical Therapy Association; 2023. Retrieved on May 11, 2023May 20, 2024 from http://guidetoptpractice.apta.org/

John MM, Kalish S, Perns SV, Willis FB. Dynamic splinting for postoperative hallux limitus: a randomized, controlled trial. J Am Podiatr Med Assoc. 2011;101(4):285-288. doi:10.7547/1010285

Joint Commission International. Joint Commission International Accreditation Standards for Hospitals (7th ed.): Joint Commission Resources; 2020

Mills PB, Finlayson H, Sudol M, O'Connor R. Systematic review of adjunct therapies to improve outcomes following botulinum toxin injection for treatment of limb spasticity. Clin Rehabil. 2016;30(6):537-548

Plaass C, Karch A, Koch A, et al. Short term results of dynamic splinting for hallux valgus - A prospective randomized study. Foot Ankle Surg. 2020;26(2):146-150

Skalsky AJ, McDonald CM. Prevention and management of limb contractures in neuromuscular diseases. Phys Med Rehabil Clin N Am. 2012;23(3):675-687. doi:10.1016/j.pmr.2012.06.009

Veltman ES, Doornberg JN, Eygendaal D, et al. Static progressive versus dynamic splinting for posttraumatic elbow stiffness: A systematic review of 232 patients. Arch Orthop Trauma Surg. 2015;135(5):613-617