



**Kaiser Foundation Health Plan
of Washington**

**Clinical Review Criteria
Standers**

- Adult Standers
- Pediatric Standers

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**Criteria
For Medicare Members**

Source	Policy
CMS Coverage Manuals	None
National Coverage Determinations (NCD)	Durable Medical Equipment Reference List (280.1) <i>Per NCD - Standing Tables are not covered because they are not primarily medical in nature.</i>
Local Coverage Determinations (LCD)	None
Local Coverage Article	None

For Non-Medicare

Kaiser Permanente has elected to use the Standing Frame (A-0996) MCG* for medical necessity determinations. This service is not covered per MCG* for medical necessity determinations. For access to the MCG Clinical Guidelines criteria, please see the MCG Guideline Index through the provider portal under Quick Access.

The following information was used in the development of this document and is provided as background only. It is provided for historical purposes and does not necessarily reflect the most current published literature. When significant new articles are published that impact treatment option, Kaiser Permanente will review as needed. This information is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage determinations.

Background

Supported standing programs are routinely used by therapists as part of a postural management approach in children with severe developmental disabilities (e.g. cerebral palsy, spinal cord injuries, meningomyelocele, osteogenesis imperfecta) as they are unable to stand or walk by themselves due to poor motor control. These programs use assistive devices or adaptive equipment, eg. standers or standing frames that provide external adjustable support, to facilitate an upright position. Standers allow weight bearing activities which are believed to increase bone mineral density (BMD), manage contractures, increase muscle strength and postural control, as well as improve visuals and oral motor skills and social communication. These in turn, may prevent or reduce the children's musculoskeletal problems, increase their independence, and enhance their functional abilities (Gudjonsdottir 2002, Caulton 2003).

Medical Technology Assessment Committee (MTAC)

Pediatric Standers

10/16/2012: MTAC REVIEW

Evidence Conclusion: There is insufficient evidence to date to determine the efficacy of standers in reducing risk of fractures among children who are unable to stand independently due to severe developmental disabilities. The published pilot RCT did not study the effect of stander equipment but examined the effect of increasing standing time in children with cerebral palsy who are already involved in a standing program. In addition, it used bone

mineral density, an intermediate outcome, as the primary end point. A more important clinical outcome would be the effect of the program on reducing the risk of bone fracture. Larger RCTs with long-term follow-up are needed to determine the long-term safety and efficacy of standers on reducing the risk of fractures in children severe developmental disabilities.

Articles: There is very limited published literature on the use of standers for non-ambulant children due to significant developmental disabilities. The search identified a small pilot randomized controlled trial (RCT) that examined the effect of increasing the duration of a standing program on bone mineral density (BMD) in children with cerebral palsy, and another also very small pilot RCT (N=20) that examined the effect of standing on BMD in children with disabling conditions. There was also a number of published small case series with twenty or less participants each that examined the short-term effect of standing frames or prolonged standing on gait, muscle contracture, or BMD in children with cerebral palsy. The following RCT was critically appraised in the 2012 review. Caulton JM, Ward KA, Alsop CW, et al. A randomized controlled trial of standing program on bone mineral density in non-ambulant children with cerebral palsy. *Arch Dis Child*. 2004;89;131-135. See [Evidence Table](#).

The use of use of standers to reduce fracture risk does not meet the *Kaiser Permanente Medical Technology Assessment Criteria*.

Pediatric Standers

02/11/2013: MTAC REVIEW

Evidence Conclusion: There is insufficient evidence to date to determine the efficacy of standers in reducing risk of fractures among children who are unable to stand independently. The published pilot RCT by Caulton and colleagues (2004), did not study the effect of stander equipment, but examined the effect of increasing standing time in children with cerebral palsy who are already involved in a standing program. In addition, it used bone mineral density, an intermediate outcome, as the primary end point. A more important clinical outcome would be the effect of the program on reducing the risk of bone fracture. Ward and colleagues' (2004) RCT included children who were able to stand independently but had limited mobility due to their disability (autism, involuntary movements, limb deformity, and spasticity). 20 children 4-19 years of age were randomized to standing on active (vibrating platform) or placebo devices for 10 minutes/day, 5 days/week for 6 months. The primary outcome was proximal tibial spinal bone mineral density (vTBMD). The compliance rate was only 44%, and the 6 months results showed a net benefit of treatment equal to +15.72 mg/ml (17.7%; $p=0.0033$) for proximal tibial BMD and + 6.72 mg/ml, ($p = 0.14$) for the spine, compared with placebo. Larger RCTs with long-term follow-up, and patient oriented outcomes, are needed to determine the long-term safety and efficacy of standers on reducing the risk of fractures in children with developmental disabilities.

Articles: There is very limited published literature on the use of standers for non-ambulant children due to significant developmental disabilities. The search identified a small pilot randomized controlled trial (RCT) that examined the effect of increasing the duration of a standing program on bone mineral density (BMD) in children with cerebral palsy, and another also very small pilot RCT (N=20) that examined the effect of standing on BMD in children with disabling conditions. There was also a number of published small case series with twenty or less participants each that examined the short-term effect of standing frames or prolonged standing on gait, muscle contracture, or BMD in children with cerebral palsy. The following RCT was critically appraised in the 2012 review. Caulton JM, Ward KA, Alsop CW, et al. A randomized controlled trial of standing program on bone mineral density in non-ambulant children with cerebral palsy. *Arch Dis Child*. 2004;89;131-135. See [Evidence Table](#).

The use of standers to improve pulmonary function does not meet the *Kaiser Permanente Medical Technology Assessment Criteria*.

Adult Standers

BACKGROUND

Standing frames also known as standers, standing devices, standing systems, or standing aids, are assistive devices that enable non-ambulatory individuals to achieve and maintain an upright posture. These may be used by patients with mild to severe disabilities such as spinal cord injury, traumatic brain injury, cerebral palsy, muscle dystrophy, or other neuromuscular conditions that do not enable the individual to stand independently. They can be used at home, in the workplace, extended care units, assisted living centers, nursing homes, and rehabilitation facilities. Prolonged standing has been investigated over the years for its possible benefits for patients with spinal cord injuries and other disabilities. It is suggested that standing and weight bearing activities may increase bone mineral density and muscle strength, reduce abnormal muscle tone and spasticity, improve circulation, reduce lower limb swelling, improve bowel and bladder function, prevent pressure sores, as well as other potential benefits. Many of these benefits, however, are not supported by good quality evidence (Eng 2001, Bagley 2004, Bernhardt 2012).

There are a variety of standing systems. The common types include sit to stand, prone, upright, prone, multi-positioning standers, and standing wheelchairs. Some systems can be changed by the user from a sitting to a standing position; others require the assistance of another person to change its position. Standing systems can generally be divided into three groups: 1. Passive or static standers that remain in one place and cannot be self-propelled, 2. Mobile or dynamic standers that can be propelled by the user if he/she has the ability to do so, and 3. Active standers that can create reciprocal movements of the arms and legs while the patient is standing.

08/17/2015: MTAC REVIEW

Adult Standers

Evidence Conclusion: There is insufficient evidence to date, to determine the efficacy of standing devices on health outcomes of patients with disabilities or health conditions that render them unable to stand independently. The published RCT conducted by Bagley and colleagues (2005) (Evidence table 1) evaluated the effectiveness of the Oswestry Standing Frame for severely disabled stroke patients. The trial included 140 inpatients in a stroke rehabilitation unit. In addition to undergoing the usual stroke care, the patients were randomized in a 1:1 ratio to receive 14 consecutive treatment with the use of Oswestry standing frame, or to receive 14 consecutive treatments but without access to the Oswestry standing frame. The primary outcome of the trial was the change in the Rivermead Mobility Index (RMI) from baseline to 6 weeks post stroke. The results of the trial showed no statistically significant difference between the study groups in any of the primary or secondary outcome measures or for resource savings. Larger RCTs with long-term follow-up and patient-oriented outcomes are needed to determine the long-term safety and efficacy of standing devices or systems among adults with different health conditions and/or disabilities that do not enable them to stand on their own.

Articles: There is very limited published literature on the use of standers for non-ambulatory adults with mild to severe physical disability. The literature search identified one RCT (Bagley et al, 2005) that evaluated the Oswestry standing frame for patients after stroke, and another very small pilot RCT (Allison et al, 2007) that assessed the impact of additional supported standing practice on the functional ability post stroke in 14 patients. The following trial was selected for critical appraisal: Bagley P, Hudson M, Forster A, Smith J, et al. A randomized trial evaluation of the Oswestry Standing Frame for patients after stroke. *Clin Rehabil.* 2005 June; 19(4):354-364. [See Evidence Table 1.](#)

The use of Adult Standers does not meet the *Kaiser Permanente Medical Technology Assessment Criteria*.

Applicable Codes

Considered Not Medically Necessary:

CPT® or HCPC Codes	Description
E0637	Combination sit-to-stand frame/table system, any size including pediatric, with seat lift feature, with or without wheels
E0638	Standing frame/table system, one position (e.g., upright, supine or prone stander), any size including pediatric, with or without wheels
E0641	Standing frame/table system, multi-position (e.g., 3-way stander), any size including pediatric, with or without wheels
E0642	Standing frame/table system, mobile (dynamic stander), any size including pediatric

***Note:** Codes may not be all-inclusive. Deleted codes and codes not in effect at the time of service may not be covered.

**To verify authorization requirements for a specific code by plan type, please use the [Pre-authorization Code Check](#).

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Date Created	Date Reviewed	Date Last Revised
03/05/2013	03/05/2013 ^{MDCR} , 01/07/2014 ^{MPC} , 11/04/2014 ^{MPC} , 09/01/2015 ^{MPC} , 06/07/2016 ^{MPC} , 04/04/2017 ^{MPC} , 02/06/2018 ^{MPC} , 02/05/2019 ^{MPC} , 02/04/2020 ^{MPC} , 02/02/2021 ^{MPC} , 02/01/2022 ^{MPC} , 02/07/2023 ^{MPC}	10/06/2020

MDCRPC Medical Director Clinical Review and Policy Committee

MPC Medical Policy Committee

Revision History	Description
10/28/2015	Added NCD link
10/06/2020	MPC approved the MCG 24 th ed. guideline for Standing Frame: A-0996