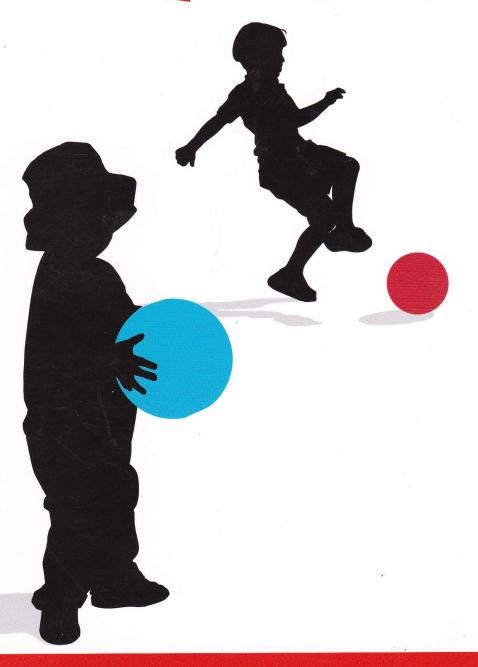
SureStep



# SureStep

Family of Products









advanced PullOver

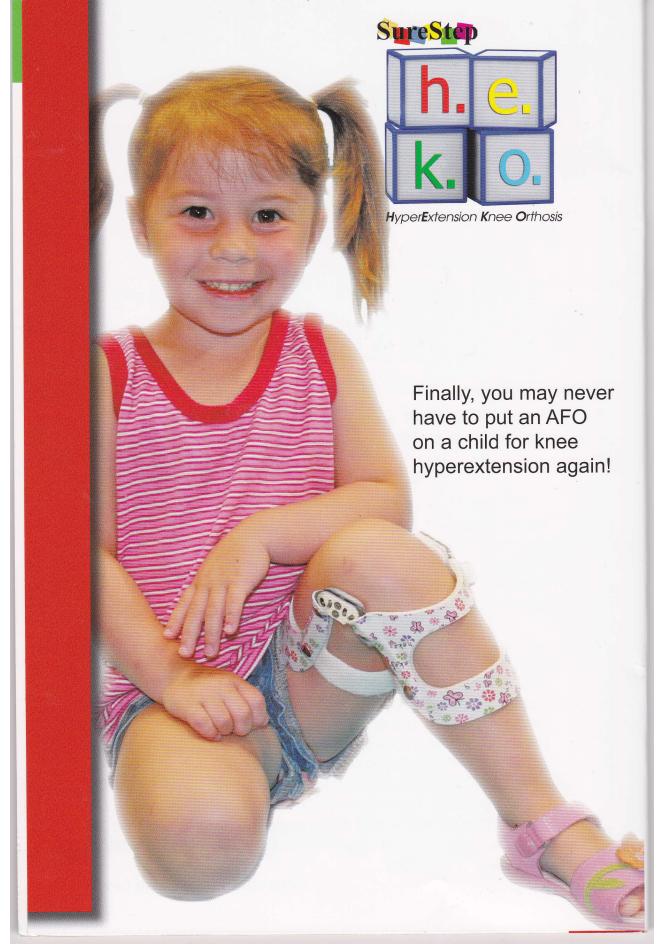
SureStep & Barres

# SureStep Dynamic Stabilizing System

SureStep is a revolutionary concept in controlling foot and ankle pronation in children with low tone. The advanced, patented technology of SureStep outperforms traditional bracing in combating this type of medial/lateral instability. The SureStep concept was created by Bernie Veldman, C.O., who specializes in pediatric orthotics.

"As an orthotist and a father of a child with low muscle tone, I was determined to provide the best orthotic treatment regimen for my son Kevin. When Kevin was younger, I fabricated a variety of orthotics for his severely pronated feet. Some restricted certain activities like jumping; some made his legs tired and sore; some gave him blisters and callused areas; some just simply slowed him down. Frustrated by the functional limitations created by traditional rigid bracing made of hard plastics, I pursued the creation of a lighter and more flexible device that would allow and even encourage normal development of a child's gait without decreasing function."

Go a step further... we have.





The new SureStep h.e.k.o. is the next revolution from SureStep. The SureStep h.e.k.o. is a fully functional hyperextension orthosis for smaller pediatric patients. h.e.k.o. approaches hyperextension of the knee by limiting knee movement without limiting normal function. Controlling genu recurvatum has traditionally been addressed at the ankle; limiting plantarflexion. This in turn limits the development of normal gait and reduces the child's ability to function naturally and keep up with his peers.

#### (Custom Fabricated from measurements)

#### LOOK & FEEL

- Focused: Localized control of genu recurvatum, genu varum, genu valgum
- Lightweight: just over 4 oz.
- Low Profile: Can easily be worn under existing clothing
- Simple: Easy on and easy off; not overwhelming for children or parents.

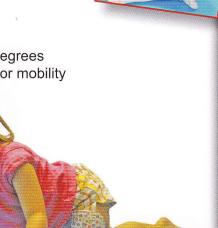
#### **FUNCTION**

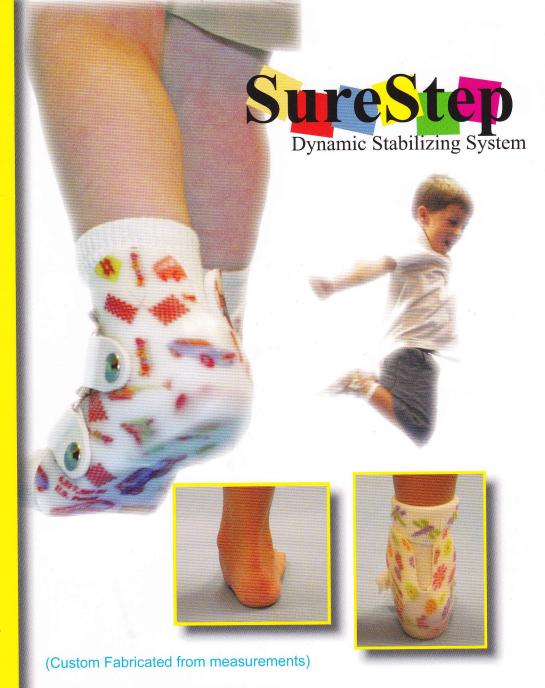
- Full range of motion: from 0 degrees to 135 degrees
- Functional: h.e.k.o. will not impede normal floor mobility and allows for normal
  - -walking
  - -running
  - -squatting
  - -jumping

Think function...
Think h.e.k.o...

The 4 axis "h.e.k.o. hinge" provides full range of motion while mimicking the anatomical movements of the knee.

Our "h.e.k.o. hinge" was designed and fabricated exclusively for SureStep in cooperation with O.T.S. Corp. Thanks O.T.S.!!





The SureStep Dynamic Stabilizing System is a revolutionary concept in stabilizing the foot and ankle in children with low tone. The advanced, patented technology of SureStep outperforms traditional bracing in addressing this type of medial/lateral instability while promoting normal function.

#### Improved Efficiency

Children who pronate expend a great deal of energy through their feet, legs and upper body in an attempt to counter imbalances caused by pronation related instabilities. The SureStep system helps to stabilize the foot and ankle, which reduces the need for extensive balance compensation.



#### Increased Stability

While there are many different types of orthoses that attempt to correct hypotonic pronation, they do so by locking the foot into a static alignment. Only the SureStep system uses the unique, patented principle of compressing the foot, through the use of an extremely lightweight, thin and flexible plastic, creating a stable midline position from which the foot can move naturally through the gait cycle. This truly dynamic concept allows for more natural movement of the foot and ankle while still maintaining proper alignment in standing, walking and running.

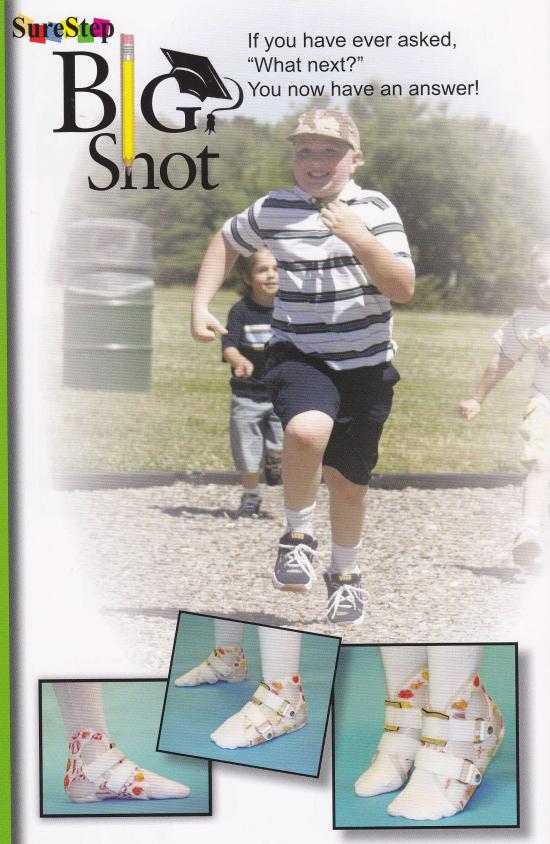
#### Help them learn it right

As children begin to take steps, they build and reinforce their gait muscle strategies and movement patterns. The unique design of SureStep allows for intrinsic movements, therefore, the intrinsic musculature, muscle strategies, balance reactions and movement patterns necessary for a natural, efficient and stable gait are encouraged.

#### Better Alignment

Excessive pronation puts undue stress on the knees and hips by changing the alignment of the lower extremities, taxing the muscles of the legs greatly. This often results in complaints of fatigue and "tired legs". The SureStep system helps to stabilize the foot and ankle, which helps to relieve the stress from the knee and hip joints and allows the muscles to work more efficiently and joints to travel more efficiently.





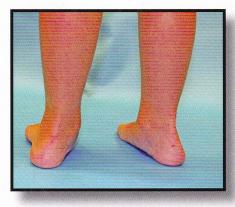
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While many children will transition from SureStep to a smaller device, some children will continue to need maximal support and stability. For these children, we have created the SureStep BigShot. The

BigShot incorporates all of the flexibility of the SureStep system for larger children who are nearing or over the weight limit for SureStep.

The soft "silicone-like" inner boot of the BigShot ensures that your patient will be comfortable, while the flexible, plastic, outer framework serves to provide the support with flexibility.









SureStep Advanced AFO takes SureStep to a whole new level.

(Custom Fabricated from cast mold with measurements)

All the benefits of the SureStep SMO plus

- Proximal strut to help reduce sagittal instabilities
- Can easily be converted from AFO to SureStep SMO with simple trimming
- Discourages dorsiflexion and plantarflexion
- Encourages independent standing
- Reduces time between pull-to-stand and independent ambulation
- · Lightweight, low profile design easily fits into most existing footwear
- Allow for better proprioception than traditional bracing



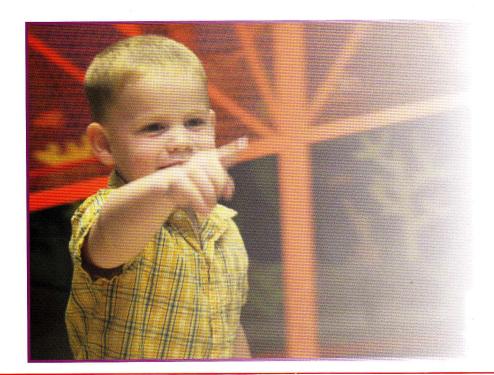
The SureStep Advanced AFO was developed for the younger hypotonic population. It is ideal for children who are ready to independently stand, but realize tri-planar instability and have difficulty in finding a stable midline position. TheSureStep Advanced employs the same unique concept of compression of the foot and ankle to manage and maintain a stable midline while allowing the foot to easily and stably travel in and out of midline.

This uniquely convertible system encourages children to transition between assisted standing and independent standing by stabilizing their feet and ankles without immobilizing them. As children progress toward ambulation, and a lower profile and increased movement is necessary, the SureStep Advanced can be quickly converted to a SureStep SMO and continue to serve the child with true dynamic control of the foot and ankle. The SureStep Advanced has eliminated the need for two pairs of orthoses for many children and are normally reimbursed through most insurance policies, Medicaid and other third party payors.

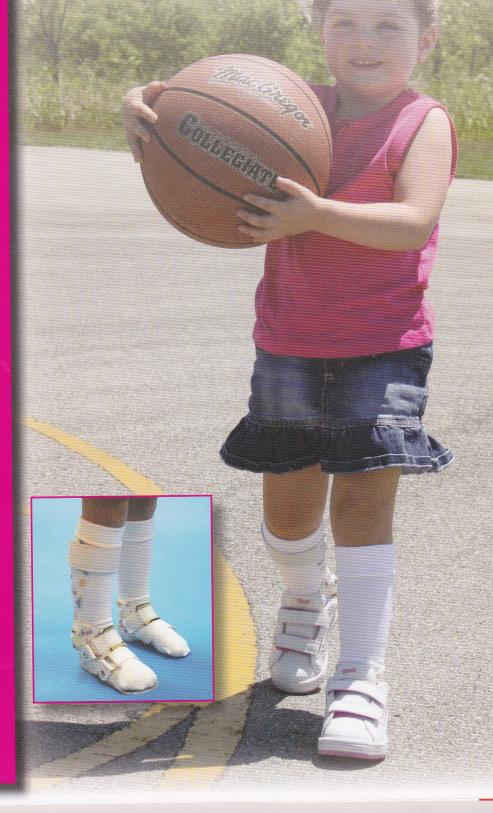
#### Indications:

Hypotonia Triplanar instability in weight-bearing Inability to maintain independent standing Mild toe-walking

Secondary indications: Genu recurvatum (see SureStep h.e.k.o.) Contraindications: High tone Spasticity Severe toe-walking



SureStep PullOver



### (Custom Fabricated from cast mold with measurements)

- · Dynamic stability for the foot and ankle
- Utilizes the concept of compression to manage the foot and ankle without over managing
- Dorsiflexion assist facilitates clearance during swing phase and deceleration upon heel strike
- Removable proximal strut allows this unique device to be used as an AFO or SMO interchangeably
- Can be ordered with full footplate or a shortened SureStep style footplate



The SureStep PullOver is a completely unique AFO. It is the first custom AFO that can be used as a freely articulated AFO or as an SMO simply by removing the proximal strut. This convertible device allows children to develop balance reactions and strength while wearing the SureStep SMOs, and still gives the option of adding the proximal strut for increased stability and assistance with ambulation.

Another unique feature when comparing the PullOver to a traditional articulated AFO with a plantarflexion stop is the ability of the plantarflexors to remain active throughout the gait cycle. This encourages improved strength, motor planning and muscle strategies while reducing the effects of disuse atrophy.









#### Indications:

Mild-Hemiplegia Medial/Lateral instabilites Dorsiflexor weakness Plantarflexor weakness Unstable standing

#### Contraindications:

Spasticity Toe-Walking High Muscle Tone



## SureStep T

A perfect blend of support & flexibility.

### (Custom Fabricated from measurements)

The SureStep TLSO approaches management of the trunk by providing stability while allowing for slight movement in all planes. Immobilization has been the standard in spinal management, and while any static position may be achieved with more rigid spinal bracing, this immobilization brings with it the inability to develop dynamic movements of the trunk, and encourages atrophy of the musculature throughout.

The SureStep TLSO uses SureStep's thin and flexible plastic to compress the trunk without immobilizing. Liners are available in a variety of thicknesses to improve comfort and decrease the risk of skin irritation and soft tissue trauma.



#### **Features and Options:**

- •Thin and supple plastic remains flexible when worn
- •Adaptable for G-Tubes, Baclofen pumps, etc.
- •Lightweight, low profile design is more comfortable
- •Removable foam liner protects against edge pressure and is easy to clean
- •Anterior or posterior opening available with hook and loop closure
- •Excellent replacement for custom molded seating systems
- •Allows dynamic trunk movement
- •Available in all of the cool designs
- Custom fabricated to measurements

#### **Contraindications:**

- Fixed scoliotic curvatures
- Adolescent idiopathic scoliosis
- Severe respiratory compromise





## Fitting Guide

"Since compression is key, it is necessary to tension the straps of the SureStep system tightly. SNUG IS NOT ENOUGH!!!"

Thank you for choosing the SureStep dynamic stabilizing system. This guide contains valuable information on properly fitting the SureStep system. Please review the information below to ensure a proper fit and proper function of the SureStep system.

#### **Trimlines**

The trimlines of the SureStep system are cut to SureStep specifications based upon the measurements that were provided. It is not uncommon for a SureStep to require a small amount of trimming on the distal edges or at the dorsum wings. Use the following as a guide:

#### Medial

The medial trimline should be cut proximal to the first metatarsal head. It is important that this trimline not impinge on the proximal aspect of the first metatarsal head. If there is any trimming needed on either the distal medial or distal lateral trimline, it may be necessary to replace the outward flare. This can be done by applying heat using a micro-torch or a lighter for approximately one second. The flare can then be pressed out using your thumb from the inside.

#### Lateral

The lateral trimline should extend distal to the fifth metatarsal head and should be cut at the sulcus of the fifth toe. This trimline can easily be checked by dorsiflexing the fifth toe to ensure that the dorsum of the fifth toe will not be irritated at push-off.

#### Dorsum

The trimlines over the dorsum of the foot should gap at least 3/8" but no more than 3/4" on larger children and should never overlap. If the dorsum wings overlap or if they are closer than 3/8", trim them back to the appropriate shape.





#### Donning

Donning the orthosis correctly is key to proper functioning of SureStep. Below are some steps to follow to ensure proper fit and function of the SureStep system.

- 1. SureSteps are marked with an R and an L to ensure that they are donned on the correct foot, but it is not uncommon for parents to don them on the incorrect foot due to the longer lateral wall. Be sure to properly instruct the patient's caregiver on proper donning and doffing.
- When donning SureSteps.
  - a. Use your thumbs to open the orthosis and pull it onto the foot from the posterior.
  - b. To ensure that the foot is completely seated:
    - i. While dorsiflexing the ankle, use the forefoot to supinate the foot slightly.
    - ii. Push the foot back into the orthosis until the heel is completely seated.
      - c. Fasten the attached strap(s).
      - 3. TIGHTNESS: Proper tensioning is crucial to the proper functioning of the SureStep system. Since compression is key, it is necessary to tension the straps of the SureStep system tightly. SNUG IS NOT ENOUGH!!!
      - 4. Mark straps: Marking the straps at the metal loop for proper tensioning is important so that parents and caregivers will properly don the SureSteps.





# SureStep &







#### SureStep De-Rotation Straps

- Dynamic control for mild femoral and tibial rotation
- Latex free elastic hook and loop straps allow for universal fit
- Localized control of tibial rotation, hip rotation or combined rotational control
- Easily attaches to shoelaces or to the attached chafe and loop
- Can be used unilaterally or bilaterally
- Works for both internal and/or external rotational components
- Comfortable low profile design easily hides under clothing
- Can be attached to new or existing lower extremity orthoses
- Can be attached directly to existing footwear
- Available in both pediatric and adult sizes

#### Indications:

Flexible internal or external femoral or tibial rotation

#### Contra indications:

· Fixed rotational deformities



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