



TILLGES

PARTNERS FOR LIFE

LOWER EXTREMITY SOLUTIONS

Our highly skilled and qualified technicians collaborate with our certified practitioners in fabricating these custom-made products.



Tillges Technologies is your go-to central fabrication facility for custom orthotic and prosthetic devices. We employ highly skilled and qualified orthotic and prosthetic technicians who assist our certified practitioners in fabricating our custom-made devices. We pride ourselves on LEAN initiatives to reduce lead times and to continuously improve our quality standards on the products and services we provide. In addition, a certified practitioner inspects every central fabrication job before it ships from our facility. Tillges Technologies was founded in 2012 by Robert, Michael and Steve Tillges, whom are all certified prosthetists and orthotists at Tillges Certified Orthotic Prosthetic Inc. in St. Paul, Minnesota. Thomas and David Tillges joined the company in 2016.



TABLE OF CONTENTS

Masterflex AFO 2 - 4

Thermoplastic AFO 5 - 11

Minnesota Boot AFO 12 - 13

Carbon Fiber AFO.....14 - 19

Carbon Fiber KAFO 20

Thermoplastic KAFO21 - 22

AOPA Approved Coding Letter 23

Medicare Documentation Requirements 24

ICD-10 Reference Chart 25

Notes 26



SUPRA-MALLEOLAR MASTERFLEX AFO

FEATURES

- Custom fabricated
- Soft, flexible molded inner boot design
- Rigid co-poly outer frame design
- Metatarsal length footplate
- Anatomical reliefs
- 1" Velcro strap closure
- Color: white or black

CLINICAL INDICATIONS

- Ankle instabilities
- Achilles tendonitis
- Trauma to the ankle or foot
- Severe pes planus or pronation
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- Mild DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated AFO that stabilizes the ankle to provide medial-lateral ankle support with limited plantar- and dorsi-flexion. Provides stabilization to the ankle, subtalar and mid-tarsal joints. The SMO Masterflex AFO is lower profile than the standard Masterflex AFO, which extends just proximal to the malleoli.



MASTERFLEX AFO

FEATURES

- Custom fabricated
- Soft, flexible molded inner boot design
- Rigid co-poly outer frame design
- Metatarsal, sulcus or full-length footplate
- Anatomical reliefs
- 1" Velcro strap closure
- Extends higher above ankle for increased support
- Color: white or black

CLINICAL INDICATIONS

- Ankle instabilities
- Achilles tendonitis
- Trauma to the ankle or foot
- Severe pes planus or pronation
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated AFO that stabilizes the ankle to provide medial-lateral ankle support with limited plantar- and dorsi-flexion. Provides stabilization to the ankle, subtalar and mid-tarsal joints. The Masterflex AFO is taller than the SMO Masterflex AFO, which extends an additional 3" proximally.



EZ MASTERFLEX AFO

FEATURES

- Custom fabricated
- Soft, flexible molded inner boot design
- Rigid co-poly outer frame design
- Metatarsal, sulcus or full-length footplate
- Anatomical reliefs
- 1 1/2" Velcro strap proximal closure
- Figure 8 ankle strap
- Extends higher above ankle for increased support
- Color: white or black

CLINICAL INDICATIONS

- Ankle instabilities
- Achilles tendonitis
- Trauma to the ankle or foot
- Severe pes planus or pronation
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated AFO that stabilizes the ankle to provide medial-lateral ankle support with limited plantar- and dorsi-flexion. Provides stabilization to the ankle, subtalar and mid-tarsal joints. The EZ Masterflex AFO is taller than the SMO Masterflex AFO, which extends an additional 3" proximally.



LEAF SPRING AFO

FEATURES

- Custom fabricated
- Semi-rigid thermoplastic design
- 3 profile designs: PLS (#1), semi-solid (#2), solid (#3)
- Metatarsal, sulcus or full-length footplate
- Varus or valgus correction
- Choice of ankle strap: 1" Velcro riveted, 1" Velcro figure 8, 1" Velcro dynamic, or no ankle strap
- 1-1/2" Velcro calf strap with tibial pad
- Color: white or black

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Ankle instabilities
- Multiple sclerosis
- Post CVA
- Trauma to the ankle or foot
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated, semi-rigid, thermoplastic AFO that stabilizes the ankle to provide medial-lateral ankle support with limited plantar- and dorsi-flexion. Provides stabilization to the ankle, subtalar and mid-tarsal joints. This design limits plantar-flexion, allowing toe clearance through swing phase to provide a more natural gait.



PLS #1

SEMI-SOLID #2

SOLID #3



SOLID ANKLE AFO

FEATURES

- Custom fabricated
- Rigid thermoplastic design
- Metatarsal, sulcus or full-length footplate
- Varus or valgus correction
- Choice of ankle strap: 1" Velcro riveted, 1" Velcro figure 8, 1" Velcro dynamic, or no ankle strap
- Two 1-1/2" Velcro calf straps with pre-tibial interlocking shell
- Color: white or black

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Charcot foot
- Post CVA
- Ankle instabilities
- Multiple sclerosis
- Mild genu recurvatum
- Trauma to the ankle or foot
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated, rigid, thermoplastic AFO that stabilizes the ankle providing medial-lateral ankle support while eliminating plantar- and dorsi-flexion. Holds the ankle in subtalar neutral position and provides stabilization to the ankle, subtalar and mid-tarsal joints. This design eliminates plantar-flexion, allowing toe clearance through the swing phase to provide a more natural gait.



CONVERTIBLE AFO

FEATURES

- Custom fabricated
- Rigid thermoplastic design
- Metatarsal, sulcus or full-length footplate
- Varus or valgus correction
- Adjustable or 90 degree posterior stop options
- Choice of ankle strap: 1" Velcro riveted, 1" Velcro figure 8, 1" Velcro dynamic, or no ankle strap
- Two 1-1/2" Velcro calf straps with pre-tibial interlocking shell
- Color: white or black

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Charcot foot
- Ankle arthritis
- Ankle instabilities
- Achilles tendon rupture
- Trauma to the ankle or foot
- Ankle or lower leg fractures
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated, rigid, thermoplastic AFO that stabilizes the ankle providing medial-lateral ankle support while eliminating plantar- and dorsi-flexion. Holds ankle in subtalar neutral position and provides stabilization to the ankle, subtalar and mid-tarsal joints. This design eliminates plantar-flexion allowing toe clearance through the swing phase to provide a more natural gait. This unique brace allows for future articulation at the ankle level when the patient reaches that point in their rehabilitation process.



LOW PROFILE ARTICULATED AFO

FEATURES

- Custom fabricated
- Rigid thermoplastic design
- Metatarsal, sulcus or full-length footplate
- Varus or valgus correction
- Tamarack (regular or dorsi assist) or Oklahoma joint option
- Choice of ankle strap: 1" Velcro riveted or 1" Velcro dynamic strap, or no ankle strap
- One 1-1/2" Velcro calf strap
- Color: white or black

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Charcot foot
- Post CVA
- Ankle instabilities
- Multiple sclerosis
- Mild genu recurvatum
- Trauma to the ankle or foot
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated, hinged, low profile rigid thermoplastic AFO design with free motion that stabilizes the ankle to provide medial-lateral ankle support and reduce forefoot abduction or adduction. Holds the ankle in subtalar neutral position and provides stabilization to the ankle, subtalar and mid-tarsal joints. This AFO manages abnormal motion or severe pronation in the transverse and frontal planes. Constructed with either dorsi- or plantar-flexion assist or resist joints.



ARTICULATED AFO

FEATURES

- Custom fabricated
- Rigid thermoplastic design
- Metatarsal, sulcus or full-length footplate
- Varus or valgus correction
- Tamarack (regular or dorsi assist) or Oklahoma joint option
- Adjustable or 90 degree posterior stop options or free motion design
- Choice of ankle strap: 1" Velcro riveted or 1" Velcro dynamic strap, or no ankle strap
- Two 1-1/2" Velcro calf straps with pre-tibial interlocking shell
- Color: white or black

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Charcot foot
- Post CVA
- Ankle instabilities
- Multiple sclerosis
- Mild genu recurvatum
- Trauma to the ankle or foot
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated, hinged, rigid thermoplastic AFO design that stabilizes the ankle providing medial-lateral ankle support and reduces forefoot abduction or adduction. Holds the ankle in subtalar neutral position to provide stabilization to the ankle, subtalar and mid-tarsal joints. This AFO manages abnormal motion or severe pronation in the transverse and frontal planes. Constructed with either dorsi- or plantar-flexion assist or resist joints and available with posterior stop options or free motion design.



UNLOADER AFO

FEATURES

- Custom fabricated
- Rigid thermoplastic design
- Solid ankle or jointed angle design
- Metatarsal, sulcus or full-length footplate
- Varus or valgus correction
- Ankle reinforcement option
- Choice of ankle strap: 1" Velcro riveted or 1" Velcro dynamic strap
- 3 to 5 1-1/2" Velcro calf straps with pre-tibial interlocking shell
- Optional leather unloader calf section available
- Color: white or black

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Charcot foot
- Ankle arthritis
- Ankle instabilities
- Achilles tendon rupture
- Trauma to the ankle or foot
- Ankle or lower leg fractures
- Posterior or anterior tibial tendonitis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated rigid thermoplastic AFO that stabilizes the ankle to provide medial-lateral ankle support while eliminating plantar- and dorsi-flexion. Holds ankle in a rigid position at all times, stabilizing the ankle, subtalar and mid-tarsal joints. Lacer/Velcro upper construction to allow for maximum conforming around the calf belly which unloads the weight at the foot and ankle. This design eliminates plantar-flexion allowing toe clearance through the swing phase to provide a more natural gait.



CUSTOM PROCOMP PARTIAL FOOT PROSTHESIS

FEATURES

- Custom fabricated
- Rigid carbon thermoplastic design
- Full-length rigid footplate
- Varus or valgus correction
- Reinforced ankle and posterior strut
- Choice of ankle strap: 1" Velcro riveted, 1" Velcro figure 8, or 1" Velcro dynamic
- Two 1-1/2" Velcro calf straps with pre-tibial interlocking shell

CLINICAL INDICATIONS

- Custom fabricated
- Rigid carbon thermoplastic design
- Full-length rigid footplate
- Varus or valgus correction
- Reinforced ankle and posterior strut
- Choice of ankle strap: 1" Velcro riveted, 1" Velcro figure 8, or 1" Velcro dynamic
- Two 1-1/2" Velcro calf straps with pre-tibial interlocking shell

A custom fabricated, rigid, carbon thermoplastic prosthesis that stabilizes the ankle providing medial-lateral ankle support. Holds ankle in a rigid position at all times. This design allows for a longer toe lever for a patient having a partial foot amputation, returning their third rocker in gait. The longer toe lever also offers improved balance throughout all phases of gait.



MINNESOTA BOOT SOLID AFO

FEATURES

- Custom fabricated
- Rigid thermoplastic design
- Rocker bottom sole
- Full-length footplate
- Ventilated calf design
- Ankle reinforcement
- Multi durometer inner molded removable boot
- Ability to excavate under ulcers to reduce pressures
- Varus or valgus correction
- 1-1/2" Dacron backed ankle strap
- 1-1/2" Dacron backed forefoot strap
- Two 1-1/2" Velcro calf straps with pre-tibial interlocking shell

CLINICAL INDICATIONS

- Wound management
- Diabetes
- Neuropathy
- Charcot foot
- Ankle instabilities
- Toe amputations
- Partial foot amputation
- Post-op management
- Foot and ankle ulcerations
- Trauma to the ankle or foot
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated, rigid, thermoplastic AFO that stabilizes the ankle providing medial-lateral ankle support while eliminating plantar- and dorsi-flexion. Holds ankle in subtalar neutral position to provide stabilization to the ankle, subtalar and mid-tarsal joints. The plantar surface is constructed with a removable inner molded boot to allow for excavation under ulcer sites for pressure reduction. This design eliminates plantar-flexion allowing toe clearance through swing phase to provide a more natural gait while incorporating a rocker sole design for a smooth roll over from heel-to-toe.



MINNESOTA BOOT UNLOADER AFO

FEATURES

- Rigid thermoplastic design
- Rocker bottom sole
- Full-length footplate
- Ventilated calf design
- Ankle reinforcement
- Multi durometer inner molded removable boot
- Ability to excavate under ulcers to reduce pressures
- Lacer/Velcro upper design for maximum unloading of the foot and ankle
- Varus or valgus correction
- 1-1/2" Dacron backed ankle strap
- 1-1/2" Dacron backed forefoot strap
- Four to Five 1-1/2" Velcro calf straps with pre-tibial interlocking shell

CLINICAL INDICATIONS

- Wound management
- Diabetes
- Neuropathy
- Charcot foot
- Ankle instabilities
- Toe amputations
- Partial foot amputation
- Post-op management
- Foot and ankle ulcerations
- Trauma to the ankle or foot
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease) or ankle arthritis

A custom fabricated, rigid, thermoplastic AFO that stabilizes the ankle providing medial-lateral ankle support while eliminating plantar-flexion and dorsi-flexion. Holds ankle in subtalar neutral position. Provides stabilization to the ankle, subtalar and mid-tarsal joints. Lacer upper construction to allow for maximum conforming around the calf belly which unloads the weight at the foot and ankle. The plantar surface is constructed with a removable inner molded boot to allow for excavation under ulcer sites to reduce pressure. This design eliminates plantar-flexion allowing toe clearance through swing phase for a more natural gait while incorporating a rocker sole design for a smooth roll over from heel-to-toe.



CUSTOM PRE-PREG AFO SLEEK

FEATURES

- Custom fabricated
- Lightweight, dynamic carbon construction
- Dynamic posterior strut allows for stored energy
- Varus/valgus control at the ankle and foot
- Full footplate design
- Firm puff padded footplate

A custom fabricated, dynamic, low profile pre-preg AFO that stabilizes the ankle providing medial-lateral ankle support and reduces forefoot abduction or adduction improving standing balance. Engineered individually per patients height, weight and activity level. Provides stabilization to the ankle, subtalar and mid-tarsal joints. This design limits plantar-flexion allowing toe clearance through the swing phase of gait. The carbon fiber material is dynamic and it stores energy to aid in ambulation.

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Mild ankle instabilities
- Multiple sclerosis
- Post CVA
- Posterior or anterior tibial tendonitis
- Peroneal paralysis
- Mild PTTD (Posterior Tibial Tendon Dysfunction)
- Mild Talocalcaneal varus or valgus foot deformity



PROPULSION ➤➤➤

FEATURES

- Custom fabricated
- Lightweight, dynamic carbon construction
- Dynamic posterior strut allows for stored energy
- Soft, flexible molded inner boot design
- Varus/valgus control at the ankle and foot
- Full footplate design

A custom fabricated, dynamic, pre-preg AFO that increases stability with a modular molded inner boot, which provides increased medial-lateral ankle support and reduces forefoot abduction or adduction to improve standing balance. Engineered individually per patients height, weight and activity level. Provides stabilization to the ankle, subtalar and mid-tarsal joints. This design limits plantar-flexion allowing toe clearance through the swing phase of gait. The carbon fiber material is dynamic and it stores energy to aid in ambulation.

CLINICAL INDICATIONS

- Foot drop
- Neuropathy
- Ankle instabilities
- Multiple sclerosis
- Mild genu recurvatum
- Trauma to the ankle or foot
- Post CVA
- Posterior or anterior tibial tendonitis
- Peroneal paralysis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease)



PROPULSION ➤➤➤



PDE CUSTOM AFO

FEATURES

- Custom fabricated
- Dynamic adjustable carbon strut
- Low profile
- Varus or valgus correction
- Nine interchangeable struts with differing stiffness
- 200mm, 250mm and 300mm length struts

CLINICAL INDICATIONS

- Foot drop
- Ankle instabilities
- Multiple sclerosis
- Mild genu recurvatum
- Trauma to the ankle or foot
- Post CVA
- Posterior or anterior tibial tendonitis
- Peroneal paralysis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease)

A custom fabricated, dynamic response, carbon fiber AFO that stabilizes the ankle providing medial-lateral ankle support while reducing forefoot abduction or adduction. Provides stabilization to the ankle, subtalar and mid-tarsal joints. This design limits plantar-flexion allowing toe clearance through the swing phase of gait. The carbon fiber posterior strut is dynamic as it stores energy to aid in ambulation. The strut comes in nine different durometers which can be interchanged in the tuning process and it can also be aligned using different wedges to offer more plantar- or dorsi-flexion. The struts also come in 200mm, 250mm and 300mm lengths to better customize to your patient



IDEO AFO

FEATURES

- Custom fabricated
- Dynamic adjustable carbon strut
- Varus or valgus correction
- Nine interchangeable struts with differing stiffness
- 200mm, 250mm and 300mm length struts

CLINICAL INDICATIONS

- Foot drop
- Ankle instabilities
- Multiple sclerosis
- Mild genu recurvatum
- Trauma to the ankle or foot
- Post CVA
- Posterior or anterior tibial tendonitis
- Peroneal paralysis
- PTTD (Posterior Tibial Tendon Dysfunction)
- Talocalcaneal varus or valgus foot deformity
- DJD (Degenerative Joint Disease)
- Congenital deformities
- Neuropathy
- Partial foot amputations

A custom fabricated, dynamic response, carbon fiber AFO that stabilizes the ankle support while reducing forefoot abduction or adduction. Provides stabilization to the ankle, subtalar and mid-tarsal joints. This design limits plantar-flexion allowing toe clearance through the swing phase of gait. The carbon fiber posterior strut is dynamic as it stores energy to aid in ambulation. The strut comes in nine different durometers which can be interchanged in the tuning process and it can also be aligned using different wedges to offer more plantar- or dorsi-flexion. This adaption provides injury-specific deflection, energy storage and power, all while maintaining control and minimizing pain.



CUSTOM PRE-PREG PARTIAL FOOT PROSTHESIS

FEATURES

- Custom fabricated
- Lightweight, dynamic carbon fiber construction
- Dynamic posterior strut allows for stored energy
- Soft, flexible molded inner boot design
- Varus/valgus control at the ankle and foot
- Full foot plate design

A custom fabricated, dynamic response, pre-preg carbon fiber partial foot prosthesis that increases stability with a modular molded inner boot which provides increased medial-lateral ankle support to improve standing balance. Engineered individually per patient's height, weight and activity level. The dynamic strut stores energy to allow for more efficient ambulation. This design allows for a longer toe lever for a patient having a partial foot amputation, returning their third rocker to gait. The longer toe lever also offers improved balance throughout all phases of gait.

CLINICAL INDICATIONS

- Trans-metatarsal amputations
- Chopart amputation
- Lisfranc amputation
- Other partial foot amputation



CLOUD FILLER
Chopart Molded Inner Boot Shown



PROPULSION ➤➤➤

PDE PARTIAL FOOT PROSTHESIS

FEATURES

- Custom fabricated
- Dynamic adjustable carbon strut
- Low profile
- Varus or valgus correction
- Nine interchangeable struts with differing stiffness
- 200mm, 250mm and 300mm length struts

A custom fabricated, dynamic response, carbon fiber partial foot prosthesis that stabilizes the ankle to provide medial-lateral ankle support. The carbon fiber posterior strut is dynamic as it stores energy to aid in ambulation. This design allows for a longer toe lever for a patient having a partial foot amputation, returning their third rocker to gait. The longer toe lever also offers improved balance throughout all phases of gait. The strut comes in nine different durometers that can be interchanged in the tuning process. The posterior struts can also be aligned using different wedges to offer additional plantar- or dorsi-flexion, depending on the patient's needs.

CLINICAL INDICATIONS

- Trans-metatarsal amputations
- Chopart amputation
- Lisfranc amputation
- Other partial foot amputation



CUSTOM PRE-PREG KAFO

FEATURES

- Custom fabricated
- Lightweight, dynamic carbon fiber construction
- Dynamic posterior strut allows for stored energy
- Anterior or posterior thigh section design
- Lower and upper leg reinforcement
- Custom strap selection and placement
- Soft, flexible molded inner boot design
- Varus/Valgus control at the ankle and foot
- Full foot plate design

CLINICAL INDICATIONS

- Post polio
- Quadricep weakness
- Hamstring weakness
- Extensor mechanism injury
- Traumatic brain injury
- Genu recurvatum
- Spinal cord injury
- Muscular dystrophy
- Multiple sclerosis
- Knee instabilities
- Post CVA

A custom fabricated, dynamic response, pre-preg carbon fiber KAFO that stabilizes the knee providing medial-lateral and anterior-posterior support while eliminating knee hyperextension or knee buckling. Engineered individually per patients height, weight and activity level. Controls genu varum or valgum moments at the knee while keeping the knee joint stable. This design holds the ankle in a subtalar neutral position and eliminates plantar-flexion allowing toe clearance through the swing phase of gait, improving standing balance. Carbon fiber provides the strongest yet lightest material option available.



PROPULSION ➤➤➤

CUSTOM KAFO POSTERIOR OFFSET KNEE JOINTS

FEATURES

- Custom fabricated
- Rigid thermoplastic, carbon thermoplastic, or carbon lamination design
- Solid ankle or jointed ankle design
- Anterior or posterior thigh section design
- Lower and upper leg reinforcement
- Custom strap selection and placement
- Varus/Valgus control at the ankle and foot

CLINICAL INDICATIONS

- Post polio
- Quadricep weakness
- Hamstring weakness
- Extensor mechanism injury
- Traumatic brain injury
- Genu recurvatum
- Spinal cord injury
- Muscular dystrophy
- Multiple sclerosis
- Knee instabilities
- Post CVA

A custom fabricated rigid, thermoplastic KAFO that stabilizes the knee providing medial-lateral and anterior-posterior support to allow for free motion of the knee, while eliminating knee hyperextension. This design holds the ankle in a subtalar neutral position and eliminates plantar-flexion allowing toe clearance through the swing phase of gait.



CUSTOM KAFO DROP LOCK KNEE JOINTS

FEATURES

- Custom fabricated
- Rigid thermoplastic, carbon thermoplastic, or carbon lamination design
- Solid ankle or jointed ankle design
- Anterior or posterior thigh section design
- Easy locking and unlocking mechanism at knee joint
- Lower and upper leg reinforcement
- Custom strap selection and placement
- Varus/Valgus control at the ankle and foot

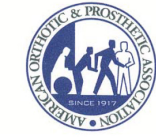
CLINICAL INDICATIONS

- Post polio
- Quadricep weakness
- Hamstring weakness
- Extensor mechanism injury
- Traumatic brain injury
- Genu recurvatum
- Spinal cord injury
- Muscular dystrophy
- Multiple sclerosis
- Knee instabilities
- Post CVA
- Failed total knee replacement

A custom fabricated rigid, thermoplastic KAFO that stabilizes the knee providing medial-lateral and anterior-posterior support while eliminating knee hyperextension or knee buckling. Controls genu varum or valgum moments at the knee while keeping the knee joint stable. This design holds the ankle in a subtalar neutral position and eliminates plantar-flexion allowing toe clearance through the swing phase of gait. Drop lock KAFO is the simplest design featuring two rings that "lock" into place upon standing. Optional ball retainers can be inserted so the KAFO can be free motion.



AOPA APPROVED CODING LETTER



November 15, 2013

Tillges Technologies, LLC
Attn: Steve Tillges, CPO
1570 Beam Ave, Suite 100
Maplewood, MN 55109

Re: Custom AFO

Dear Mr. Tillges:

In response to your request, the American Orthotic & Prosthetic Association (AOPA) Coding and Reimbursement Committee (CRC) reviewed the revised information you provided on your solid ankle AFO which you fabricate in house. After a thorough review of the revised information, including the modification to the pre-tibial shell component of the AFO, the AOPA Coding and Reimbursement Committee has the following coding recommendation.

L1960—Ankle foot orthosis (AFO), posterior solid ankle, plastic, custom fabricated

L2340—Addition to lower extremity, pretibial shell, molded to patient model

L2280—Addition to lower extremity, molded inner boot

L2232—Addition to lower extremity orthosis, rocker bottom for total contact AFO, for custom fabricated orthosis only

L2275 (When Applicable)—Addition to lower extremity, varus/valgus correction, plastic modification, padded/lined

Please be aware that AFO/KAFO policy requires that a pretibial shell extend no higher than 3" proximal to the medial malleolus in order to meet the descriptor of L2340.

If you decide to include the opinion of the CRC in your advertisements, identifying AOPA as the source of this information, then we ask that you include the following disclaimer:

"The coding opinion expressed is based upon information submitted for review and the clinical experience of the members of AOPA's Coding Committee. Neither AOPA nor its Coding Committee recommend or endorse products/devices of any manufacturer.

Regardless of the source of coding information, the final responsibility for correct coding within all established laws, rules, standards, and practices is the sole responsibility of the facility submitting the claim.

AOPA and its Coding Committee accept no responsibility for, and will not be liable for, any actions relating to this coding information."

If I can be of any further assistance, please contact me at (571) 431-0811 or via e-mail at jmcternan@aopanet.org.

Sincerely,

The image shows a handwritten signature in cursive script, which appears to read "Joseph McTernan".

Joseph McTernan
Director of Coding & Reimbursement, Education and Programming

Cc: AOPA Coding Committee

PHYSICIAN MEDICARE DOCUMENTATION REQUIREMENTS

Medicare and Medicare Advantage plans require the following to be included in the patient’s medical record. All four basic criteria must be documented in order to have coverage for any type of AFO. If the patient requires a custom fabricated brace, the face-to-face visit must indicate one or more of the five reasons allowed for custom bracing. This face-to-face visit can either be with the prescribing physician or the dictation can be completed by a physical therapist and signed off by the prescribing physician.

AFOs and KAFOs USED DURING AMBULATION are covered if the patient has the following four basic criteria documented in a recent physical exam:

A. Basic Coverage Criteria for all AFO/KAFO devices: (indicate all of the following):

- 1. Patient must be ambulatory **and**
- 2. Patient must have a weakness or deformity of the foot or ankle (if a KAFO is indicated, patient must also have a weakness or deformity of the knee) **and**
- 3. Patient must require stabilization for medical reasons **and**
- 4. Patient must have the potential to benefit functionally

AFOs and KAFOs that are custom fabricated are covered when the basic coverage criteria listed above is met and one or more of the following criteria are also met and documented in a recent physical exam:

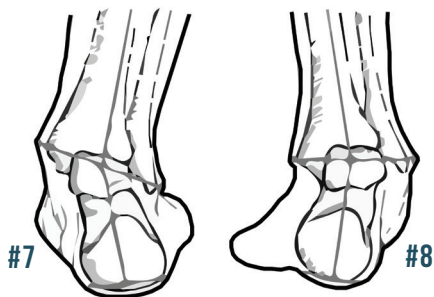
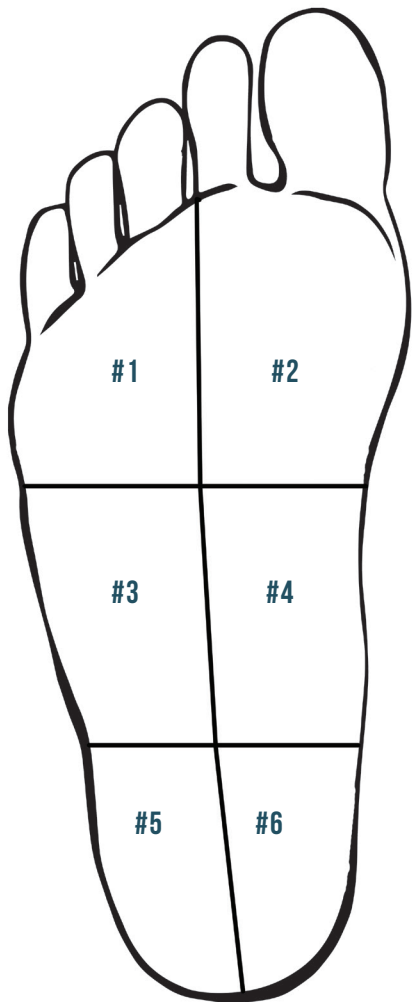
B. Criteria for Custom Fabricated AFO/KAFO devices (indicate all (4) basic criteria plus, one or more of the following):

- 1. The beneficiary could not be fit with a prefabricated AFO; **or,**
- 2. The condition necessitating the orthosis is expected to be permanent or of longstanding duration (more than 6 months); **or,**
- 3. There is a need to control the knee, ankle or foot in more than one plane; **or,**
- 4. The beneficiary has a documented neurological, circulatory, or orthopedic status that requires custom fabricating over a model to prevent tissue injury; **or,**
- 5. The beneficiary has a healing fracture which lacks normal anatomical integrity or anthropometric proportions.

If patient has a previous brace creating a Same/Similar billing issue: Original AFO has not reached its reasonable lifetime (it was received within the last 5 years), then you must explain that:

- 1. It was irreparably damaged in a specific incident, lost or stolen; **or,**
- 2. There has been a change in medical need (specifiy the change in medical need).

FOOT DEFORMITY ICD-10 REFERENCE CHART RELATING TO WOUND SITES*



#1 Lateral side of forefoot 3rd-5th metatarsal phalanges

Ankle varus deformity	(L)M21.172	(R)M21.171
Congenital pes cavus	(L)Q66.7	(R)Q66.7
Ankle instability	(L)M25.372	(R)M25.371
Foot drop	(L)M21.372	(R)M21.371

#2 Medial side of forefoot 1st-3rd metatarsal phalanges

Ankle valgus deformity	(L)M21.072	(R)M21.071
Posterior tibial tendonitis	(L)M76.822	(R)M76.821
Ankle instability	(L)M25.372	(R)M25.371
Foot drop	(L)M21.372	(R)M21.371

#3 Lateral side of midfoot

Ankle varus deformity	(L)M21.172	(R)M21.171
Congenital pes cavus	(L)Q66.7	(R)Q66.7
Ankle instability	(L)M25.372	(R)M25.371
Non-Diabetic Charcot deformity	(L)M14.672	(R)M14.671
Diabetic Charcot deformity	(L)E10.610	(R)E10.610

#4 Medial side of midfoot

Ankle valgus deformity	(L)M21.072	(R)M21.071
Posterior tibial tendonitis	(L)M76.822	(R)M76.821
Ankle instability	(L)M25.372	(R)M25.371
Non-Diabetic Charcot deformity	(L)M14.672	(R)M14.671
Diabetic Charcot deformity	(L)E10.610	(R)E10.610

#5 Lateral side of heel

Ankle varus deformity	(L)M21.172	(R)M21.171
Congenital pes cavus	(L)Q66.7	(R)Q66.7
Ankle instability	(L)M25.372	(R)M25.371

#6 Medial side of heel

Ankle valgus deformity	(L)M21.072	(R)M21.071
Ankle instability	(L)M25.372	(R)M25.371

#7 Medial side of ankle

Ankle valgus deformity	(L)M21.072	(R)M21.071
Ankle instability	(L)M25.372	(R)M25.371

#8 Lateral side of ankle

Ankle varus deformity	(L)M21.172	(R)M21.171
Congenital pes cavus	(L)Q66.7	(R)Q66.7
Ankle instability	(L)M25.372	(R)M25.371

*THIS ICD-10 REFERENCE CHART IS A RECOMMENDED GUIDELINE ONLY. IT IS THE RESPONSIBILITY OF THE DISPENSING CLINICIAN TO DETERMINE THE APPROPRIATE MEDICAL DIAGNOSIS BASED ON MEDICARE AND MEDICAID REGULATIONS.

NOTES

HOW CAN YOU BETTER MANAGE YOUR PARTIAL FOOT PATIENTS?

PROPULSION >>> PARTIAL FOOT PROSTHESIS

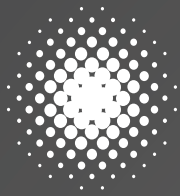
- >>> Provide them with a longer toe lever.
- >>> Reduce the pressure at the distal residual limb to provide better protection.
- >>> Improve balance and stability.
- >>> Provide improved push off.
- >>> Allow your patient to take even strides.
- >>> Expend less energy and be more efficient in day to day life.

**Better manage your partial foot patients
with the Propulsion Partial Foot Prosthesis
from Tillges Technologies.**

Steve Tillges

Certified & Licensed
Prosthetist/Orthotist
PreReg Specialist





PRESSUREGUARDIAN®



PressureGuardian® is a pressure sensor tool advancing the outcome of prosthetic and orthotic devices while providing measurement, accuracy and success for your facility and your patients.

PressureGuardian is able to help clinicians manage their patients' diabetic wounds with astonishing results, as well as assist practitioners in fine-tuning the fit of custom orthotic and prosthetic devices. PressureGuardian combines sophisticated, instantaneous pressure load measurement with a compatible app that collects, stores and transmits data to Apple iOS devices such as iPhone, iPad and iPod Touch.

PRESSUREGUARDIAN BENEFITS



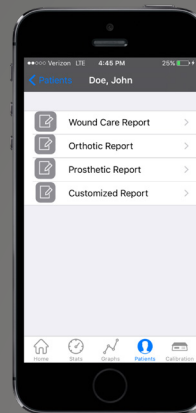
- Collects and manages patient data with ease.
- Provides documentation for insurance claims.
- Provides evidence-based practice with outcome measures.
- Helps clinicians manage their patients' diabetic wounds with astonishing results.
- Provides a non-invasive evaluation that can be repeated at short intervals.
- Provides tangible, visible biofeedback for increased patient compliance.
- Educates patients and clinicians on static and dynamic pressure loads.
- Aids practitioners in fine-tuning the fit of custom orthotic and prosthetic devices.
- Provides static and dynamic pressure and force measurements during normal gait cycle.
- Captures multiple sequential foot strikes to analyze pressure loads, saving you time.



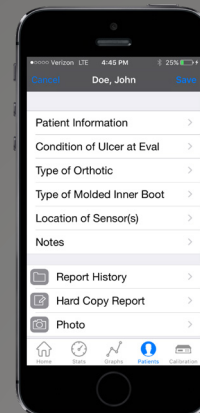
HOME SCREEN



REAL-TIME PRESSURE READINGS



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PATIENT REPORT

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