AFO, Ankle Foot Orthosis, Articulated (Custom-Molded)

Purpose of the Device

• Provides adjustable control of the ankle and foot
• Designed with an articulated ankle and plantarflexion stop

Indications

• Medial/lateral instability
• CVA
• Drop foot
• Paralysis
• Stress fracture

Common Additions

• Ankle joints
• Full foot plate
• Varus/Valgus corrective straps
• Pre-tibial shell
• Posterior stops
• Walking base

Special Considerations

• Patient needs to wear a laced or velcro-closure type shoe

Contraindications include diabetes and fluctuating edema
AFO, Ankle Foot Orthosis, Floor Reaction (Custom-Molded)

Purpose of the Device

- To provide ground forces to the knee which assist in stabilizing the knee during ambulation

Indications

- Crouch gait
- CVA w/ quadricep weakness
- Quadracep weakness
- Multiple Sclerosis

Common Additions

- Dorsiflexion assist for foot drop
- Solid ankle designs available
- Can be made with carbon graphite for light weight needs such as multiple sclerosis

Special Considerations

This design can be incorporated into a KAFO for patients with severe weakness
AFO, Ankle Foot Orthosis, Metal

Purpose of the Device

- Provides support to ankle and controls motion of the ankle joint

Indications

- Medial/lateral instability
- Paralysis
- Drop foot
- CVA

Common Additions

- Extra-depth shoes
- Varus/valgus ankle corrective strap
- Steel shank
- Rocker sole

Special Considerations

- This is the most versatile of AFOs
  It can be used for patients whose conditions or abilities are changing

This orthosis allows a therapist to work with a patient and gradually change the orthosis to accommodate the patient's abilities
AFO, Ankle Foot Orthosis, Solid

Purpose of the Device

- Provides support to the ankle and foot in any or all of the three planes of motion

Indications

- Medial/lateral ankle instability
- Severe pronation
- Post-operative stability
- Mild knee hyperextension
- Achilles tendon repair

Common Additions

- Ankle joints
- Dorsiflexion assist
- Plantarflexion stops

Anterior shell, for maximum control
Ankle/Foot Support, Bledsoe Walking Boot

Purpose of the Device

• Provides support and control to the lower extremity for a wide variety of applications
• Ankle motion is controlled by a range of motion ankle joint

Indications

• Distal tibial/fibula fractures (post cast-removal)
• Fractures in the foot and ankle
• Post ankle fusions
• Tendon tears/ruptures/repairs

Common Additions

• Rigid anterior and posterior shells for tibia and fibula fracture applications

Special Considerations

• This brace is contraindicated for unstable fractures.

Liners can be hand washed
KAFO (Knee-ankle-foot-orthosis), Metal, Custom

Purpose of the Device

- Provides variable control of the knee and ankle
- Ankle motion may be fixed or adjustable
- A manual lock may be added to the knee joint

Indications

- Instability of knee and ankle
- Paralysis
- CVA
- Knee replacement
- Quad weakness

Common Additions

- Range-of-motion knee joints
- Varus/Valgus correction strap
- Step lock knee joints
- Offset knee joints
- Full kneecap
- Thigh lacer

Special Considerations

Will not control the hip joint
Knee Brace, CTI, Custom

Purpose of the Device

- Provides maximum support for moderate to severe ligamentous injuries or deficiencies
- Is suitable for both non-operative and post-operative knee reconstruction patients
- Is suitable for both non-operative and post-operative knee reconstruction patients and CCL instabilities or deficiencies
- The custom, lightweight, rigid-material construction provides maximum protection for athletes involved in contact sports

Indications

- Moderate to severe ACL, PCL, MCL or LCL instabilities/deficiencies
- Medial-lateral, anterior-posterior instabilities of the knee
- Varus, valgus and other deformities requiring a customized fit

Common Additions

- Extension or flexion stops
- ACL cable system
- Patella cup
- Ski boot attachment
- PCL strap
- Undersleeves
- Sports cover

Special Considerations

- Pro sport model with its additional graphite reinforcement is recommended for high-impact contact sports such as football, hockey and basketball
- Involved leg should be rehabilitated to a point where it is close to its original size, due to the precise custom fit of the brace
Knee Brace, Donjoy Playmaker (Pre-Fabricated)

Purpose of the Device

- Provides mild to moderate knee stability for various ligamentous insufficiencies

Indications

- ACL/PCL and MCL/LCL insufficiencies

Common Additions

- Extension stops at 0, 10, 20, 30 and 40 degrees
- Flexion stops at 45, 60, 75 and 90 degrees
- Special order with ROM joints

Special Considerations

Low-profile neoprene construction provides intermediate-level support in sporting activities
Knee Brace, Ossur, Osteoarthritis Unloader, Custom

**Purpose of the Device**

Reduce pressure on the medial or lateral compartment of the osteoarthritic knee to provide symptomatic pain relief

- and reduce inflammation
- The orthosis facilitates increased patient activity and replaces or delays surgery

**Indications**

- Mild to severe unicompartmental osteoarthritis

**Common Additions**

- Undersleeves or oversleeves
- Adjustable dynamic joint system that allows for fine-tuning of the varus/valgus angulation
- KAFO design for geriatric and obese patients

**Special Considerations**

Recommended for patients who are too young for total knee arthroplasty
Knee Orthosis, Swedish Knee Cage

Purpose of the Device

- Prevents mild knee hyperextension

Indications

- Mild knee hyperextension secondary to a variety of causes

Common Additions

- Available in articulated model

Special Considerations

Not recommended for lower or moderate functional levels
Indications

- Post-op injury range of motion control or immobilization.

Features

- Knee joint settings can be free motion, or locked to allow 0, 10, 20, 30, 45, 60, 75, or 90 degrees of flexion
Indications

- Mild to moderate drop foot. Patients under 220 lbs.

Contraindications:

- Severe ankle-foot deformities, M-L instability, severe spasticity, extreme activity
Purpose / Indications

- Provides firm support and stabilization for non-operable hip disorders, and postoperative, primary or revision total hip arthroplasty.

Special Considerations

- Can be used bilaterally
Back Brace, Chairback Lumbosacral Orthosis

Purpose of the Device

- Provides rigid support of the lumbosacral spine in the coronal plane and maximum resistance to extension

Indications

- Instability of spinal levels L2 - L5
- Lumbar spinal fractures
- Osteoarthritis
- Spondylolisthesis
- LBP (lower back pain)
- Degenerative disc disease
- Spinal stenosis
- Post-operative stabilization
- Disc herniation
Purpose of the Device

- Provides rigid support of the lumbosacral region in all three planes

Indications

- Instability of spinal levels L2 - L5
- Osteoarthritis
- Low back pain
- Spinal stenosis
- Disc herniation
- Spinal fracture
- Spondylolisthesis
- Degenerative disc disease
- Post-operative support required

Common Additions

- Thigh extension, with hip joint and drop lock
- Pantaloon design (no joint added - solid plastic piece is part of the posterior section), to limit pelvic motions

Special Considerations

For L5 and S1 involvement, add a thigh cuff for increased control
Back Brace, Lumbosacral Corset

Purpose of the Device

• Provides mild control of the lumbosacral spine in all three planes

Indications

• Low back pain
• Transverse and/or spinous process fracture
• Degenerative disc disease (DDD)
• Post-operative support

Common Additions

Paraspinal steel stays contoured to the patient’s spine
Back Brace, Scoliosis Orthosis, Boston Back Brace

Purpose of the Device

- Provides corrective forces to the thoraco-lumbar spine
- Incorporates abdominal intercavity pressure to reduce lumbar lordosis
- Most commonly used for patients prior to skeletal maturity

Indications

- Scoliosis for T8, L5 apex
- Excessive lumbar lordosis and associated conditions

Common Additions

- Thoracic, lumbar and trochanteric corrective pads
- Thoracic gussets

Special Considerations

Obesity hinders proper fit and effectiveness of the orthosis
Purpose of the Device

- Provides rigid support of the thoraco lumbar spinal region in the anterior/sagittal plane
- Provides three-point pressure support

Indications

- Anterior vertebral body fracture at spinal levels T5 through L5
- Degenerative joint disease
- Ankylosing spondylitis
- Kyphosis as a result of osteoporosis
- Rheumatic arthritis
- Scheuerman’s kyphosis

Common Additions

- Superior pad may be changed to a dual pad resting in the subclavicular fossa

Special Considerations

Severe obesity may require use of a jewett to accommodate pendulous abdomen
Back Brace, TLSO, Jewett

Purpose of the Device

- Provides rigid support of the thoraco lumbar spinal region in the anterior/sagittal plane
- Provides three-point pressure support

Indications

- Anterior vertebral body fracture at spinal levels T5 through L5
- Degenerative joint disease
- Ankylosing spondylitis
- Kyphosis as a result of osteoporosis
- Rheumatic arthritis
- Scheuerman’s kyphosis
Back Brace, TLSO, Thoraco Lumbo Sacral Orthosis, Custom

Purpose of the Device

Provides rigid support of the thoracolumbar spine in all three planes

Indications

- Instability
- Degenerative disc disease
- Spinal stenosis
- Spinal fracture
- Low back pain
- Disk herniation
- Osteoarthritis
- Post-operative stability
- Mild kyphosis

Common Additions

- Cervical attachment, for supported T5-T1
- Halo superstructure, for added cervical stability

Special Considerations

- Severe respiratory problems may require a soft
- TLSO or TLSO with corset front, or TLSO with window cutouts in chest or abdomen

Severe obesity may require an additional abdominal binder for tissue containment
Back Brace, TLSO, Thoraco Lumbo Sacral Orthosis, Soft, Custom

Purpose of the Device

- Supports the thoracolumbar spinal region in all three planes
- Used for elderly patients and patients who cannot tolerate a rigid TLSO

Indications

- Instability of spinal levels T5 through L5
- Osteoarthritis
- Low back pain
- Minimal scoliosis support required
- Spinal fracture
- Degenerative disc disease
- Post-operative

Common Additions

- Not very adaptable to additions

Special Considerations

- Allows for cutouts in soft foam area for patient access
Indications

- Mild to moderate injuries/conditions of the thoracic, lumbar, and sacral spine.

Features

- Provides compression and stabilization
- Padded adjustable shoulder straps
- Separated elastic side sections
- 4 posterior slots for two 17” contoured steel stays
- Hook and loop closure for easy donning and doffing
Purpose of the Device

- Limits cervical motion in all three planes
- Mechanically restricts forward flexion and extension and, to a lesser degree, lateral flexion and extension

Indications

- Minor cervical instability
- Degenerative disc disease
- Post-operative stability is required

Common Additions

- Thoracic extension can be applied
- Can be attached to custom-molded TLSO to increase control of upper thoracic and cervical spine

Special Considerations

- Comes in various sizes and can be easily modified to fit the vast majority of patients

Extra set of soft, washable liners for hygiene purposes
Indications

• Patients with poor skin assessment on admission to ICU
• Patients who remain supine for extended periods of time due to neurological instability, pulmonary instability, hemodynamic instability, pelvic fractures, skeletal traction.
• Burn patients

Features

• Soft foam pad to encompass entire cervical to occipital region.
Cervical Orthosis, Minerva, Pre-Fabricated

Purpose of the Device

- Off-the-shelf item helps restrict flexion and extension of cervical spine

Indications

- Cervical patient who cannot tolerate a custom-molded device or cannot be put into a halo

Common Additions

- Forehead strap to help control motion

Special Considerations

Gross obesity is not suited for this device
Cervical Spine Brace, SOMI

Purpose of the Device

- Limits flexion of cervical spine
- Extension is also controlled; however, some motion is possible because of flexibility of the occipital uprights

Indications

- Prophylactic cervical management
- Post-operative management

Common Additions

- Can be attached to custom-made TLSO
- A prefabricated skull strap can be substituted for the mandibular support

Special Considerations

- Device can be applied to patient lying supine

Good control of cervical flexion instability, i.e., anterior cervical vertebral body instability