

O&P IMPACT

OFF-LOADING SOLUTIONS FOR DIABETIC WOUND CARE

Orthotic and prosthetic intervention plays an important role in wound care treatment and preventative care.

At Leimkuehler, our treatment for our neuropathic or dysvascular patients is focused on preserving the limb and maintaining mobility through redistributing forces on the neuropathic limb.

For patients with diabetic neuropathy, we provide wound care with orthotic-pedorthic management. Measures include supportive and protective componentry such as custom-molded ankle-foot orthoses (AFOs) and off-loading wound shoes. Off-loading orthoses effectively reduce peak pressure, promote healing, prevent ulceration and reduce the risk of lower limb amputation.

There are a variety of AFOs and orthotic boots (walkers) we utilize, customized and fit to each patient's specific physical condition and level of mobility. As licensed and certified orthotic and prosthetic practitioners, we are skilled in the assessment and application of off-loading devices.



The **CROW (Charcot Restraint Orthotic Walker)** for plantar ulcers, and Charcot foot maintains foot and ankle stability, prevents shear forces, and protects the limb. It can be modified to unload weight at specific areas for ulcer healing. The CROW consists of a bi-valved copolymer full foot encloser, totally encapsulated around the ankle and foot with a rocker bottom sole built into the device. It is custom fabricated to a positive model made from an impression

of the patient's affected limb. It is fully lined and uses a custom foot insert. It provides equal weight distribution through the limb and support of the ankle joint, tibia, and fibula. The CROW boot can be modified to accommodate changes by flaring, adding padding and trimming where and when appropriate.



The **DH Offloading Walker** is a walking boot for treatment of plantar ulcers. It reduces shear forces by stabilizing the foot and ankle at 90 degrees. It features a wide low-profile rocker bottom for a smooth roll-through and increased stability for altered gaits. The inner bootie prevents the foot from migrating on the insole and provides a safe environment for the simultaneous use of wound care material.

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Neuropathic walker from New York OMC is a more comfortable and advanced solution to the CROW walker. It features: triple density custom insert to relieve plantar pressures and increase comfort; soft foam padded collar to decrease posterior proximal pressure; a rocker sole to ensure proper gait; and integrated custom molded solid AFO. The Neuropathic walker is for patients who have Charcot deformities, chronic plantar ulcerations, non-union fractures, traumatic injury, partial foot amputations, equinus contractures, reflex sympathetic dystrophy, rheumatoid arthritis, Chopart, Symes, and trans-met amputations.

Several versions of the WHO accommodate different indications. The **WHO Chopart** is for immediate post Chopart or Lisfranc amputation and provides protection of the amputation site during ambulation and relief for ulcer/wounds.

The **WHO Heel/Forefoot Relief** is indicated for: any orthopedic

anomaly that requires stabilization or support for ambulation; as a stage two device when daytime ambulation is desired; a post-operative walking orthosis; post-TAL procedure; and Wagner 1-3 wounds where un-weighted ambulation is desired.

The **WHO Midfoot/Walking AFO** accommodates: any orthopedic anomaly that requires stabilization or support for ambulation; relief for post-op forefoot or midfoot amputation; post Charcot support and rocker foot support; and post-calcaneotomy.

For vascular patients who do undergo amputations, our licensed and certified prosthetists fit and fabricate prosthetic solutions customized for each individual patient. Lightweight, durability, and ease of use are especially important to this group because of sores and insensate limbs. Our practitioners are dedicated to providing the best possible outcomes through componentry, education and assistance with compliance.

A **PRAFO (Pressure Relief Snkle Foot Orthosis)** is similar to a boot and is often used for patients that spend the majority of their time in bed. A PRAFO creates airspace around the back of the heel, alleviating pressure and preventing heel ulcers.

A **PTB (Patella Tendon Bearing Brace)** is a custom plastic ankle foot orthosis with anterior shell, custom molded to the patient. It is indicated to off-load the foot for plantar ulcers, diabetic foot, Charcot joint, ankle instability, pain from arthritis condition, pes planus, and avascular necrosis of talus.

Prefabricated Walker (CAM walker or CAM boot) was designed for fractures and sprains as it is basically a removable cast. It eliminates the motion of the ankle with a rocker bottom for easy ambulation and has built-in removable layers for pressure relief along the plantar surface of the foot. These boots can also be pneumatic, which gives the patient an optimal total contact fit.

The **carbon-fiber KAFO** from Kinetic Research is for foot/ankle pathologies that require additional knee and femoral control and to support chronic knee and limb instability. Fabricated to meet the individual needs of the user, it is ultra-lightweight and durable and easy to don and use. The KAFOs can be customized with different thigh cuff positions and can be used in combination with any AFO style offered. The carbon fiber structure allows for unilateral or bilateral joint use.



The **Soto AFO** utilizes the patented technology of the Noodle, which is Kinetic Research's flagship ankle-foot orthosis. The Noodle technology creates a quick and simple solution for drop foot and for moderate to severe varus deformities. Using biomechanical

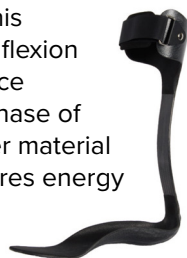


REDUCING THE RISK OF LOWER LIMB AMPUTATION

For patients with diabetic neuropathy, we provide wound care with orthotic-pedorthic management. Measures include supportive and protective componentry such as custom-molded ankle-foot orthoses (AFOs) and off-loading wound shoes. Off-loading orthoses effectively reduce peak pressure, promote healing, prevent ulceration and reduce the risk of lower limb amputation.

leverage, the Soto is able to correct and support the ankle and foot in the most functional position. The intimate fit and reduction of unnecessary material makes shoe fitting much easier. A unique 3-point pressure system provides maximum stability, comfort and control and allows dynamic motion throughout stance phase. The flexible Hemi-SMO reduces bulk and makes it easy to don.

Propulsion AFO SLEEK from Tillges Technologies is a custom fabricated, dynamic, pre-preg (reinforced) carbon composite material AFO that stabilizes the ankle providing medial-lateral ankle support and reduces forefoot abduction or adduction and improves standing balance. 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. Each AFO is engineered individually per patient's height, weight and activity level.



Propulsion AFO is a custom fabricated, dynamic, pre-preg (reinforced) 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. This design limits plantar flexion allowing toe clearance through the swing phase of gait. The carbon fiber material is dynamic and it



The **CROW (Charcot Restraint Orthotic Walker)**. [More information on page 1.](#)

stores energy to aid in ambulation. Each AFO is engineered individually per patient's height, weight and activity level.

Propulsion KAFO is a custom fabricated, dynamic response, pre-preg (reinforced) carbon fiber KAFO that stabilizes the knee providing medial-lateral and anterior-posterior support while



eliminating knee hyperextension or knee buckling. It 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. Each KAFO is engineered individually per patient's height, weight and activity level.

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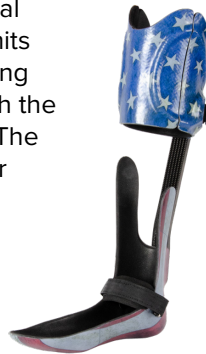
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Propulsion Partial Foot Prosthesis

is a custom fabricated, dynamic response, pre-preg (reinforced) carbon fiber AFO that stabilizes the ankle providing medial-lateral ankle support improving standing balance. 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 in gait. The longer toe lever also offers improved balance throughout all phases of gait. It is engineered individually per patient's height, weight and activity level.



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.



IDEO from Tillges is a custom fabricated, dynamic response, carbon fiber AFO that stabilizes the ankle support while reducing forefoot abduction or adduction. Provides stabilization to the ankle,

For more information about these products, or any questions you may have about your skin care, contact the office most convenient to you listed on this newsletter or visit leimop.com.

More info at www.leimop.com

Physician Documentation Is Necessary

Medicare and all Insurance companies now require that the physicians clinical notes includes the following:

- What type of orthosis the patient needs (AFO, KAFO, LSO, TLSO)
- Why they need it (for drop foot, instability, etc.)
- How it will help with their daily activities (maintain their home, be able to drive, also safety issues if patient is a fall risk etc.)
- Length of time the patient will need the orthosis (one year, five years to lifetime)

Our goal is to provide the appropriate orthosis in a timely manner for optimal results.

Please call our office, 440-988-5770, with any questions.