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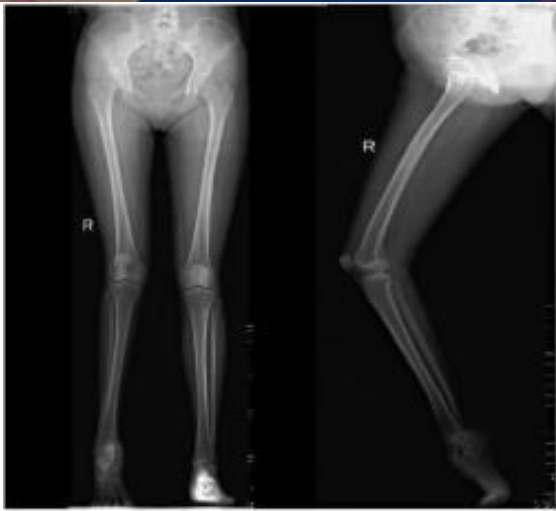
# ORTHOSIS FOR LOWER LIMB

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# Lower limb deformity

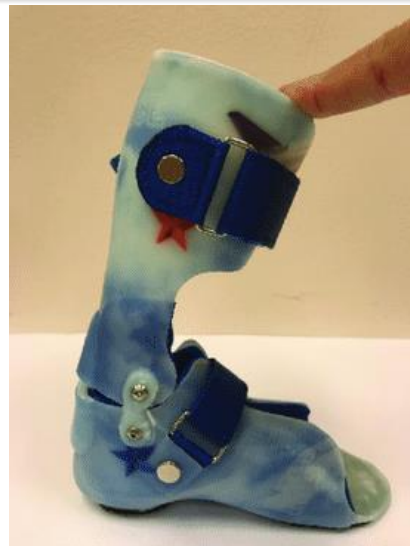


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# ANKLE FOOT ORTHOSIS (AFO)



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# Leaf AFO

- ▶ **AFO Leaf Spring** is a pre-fabricated polypropylene ankle-foot orthosis designed to support flaccid drop foot. It provides a semi-rigid section for toe clearance and support, yet has a thin, flexible foot plate for easy trimming.
- ▶ It is useful very mild foot drop case where minimal support is required.
- ▶ It only work when patient is not heavy and light in weight.
- ▶ **Price Rs1800**



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# AFO WITHOUT JOINT

- ▶ Ankle foot orthoses AFOs are external biomechanical devices utilized on lower limbs to stabilize the joints, improve the [gait](#) and physical functioning of the affected lower limb. AFO is used as supportive devices and aid for ambulation through different [gait stages](#) by providing foot clearance, used to limit or assist [ankle](#) and [foot ROM](#) like; dorsiflexion, plantar flexion, improve [balance](#), decrease the risk of falling, help with weak musculature of lower legs, and to return to previous activity or facilitate patient mobility.
- ▶ They are found in different types and different materials and can be modified according to the use and the development of the person if it is used for children. They made from thermoformed plastic material that enables to add modification and adjustments. AFOs are used as night splints to prevent contractures in some cases, patients with stroke , and other neurological conditions such as [SCI](#) and children with [cerebral palsy](#).
- ▶ Price Rs2500



# AFO WITH PP JOINT

- ▶ It give only planter flexion movement
- ▶ Dorsiflexion is ZERO movement
- ▶ It prescribe for
  - Foot drop
  - Hemiplegic paraplegic
  - Medio lateral Instability
  - Where foot slab occur.

Price Rs2800



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# Double ankle joint

- ▶ It assist both planter flexion and dorsi flexion
- ▶ Light in weight and easy to operate
- ▶ Donning and doffing also easy

Price Rs12800



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# Limited motion AFO



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- ▶ Ankle equinus is a condition in which the upward bending motion (dorsiflexion) of the ankle joint is limited. Those with ankle equines have a restriction in flexibility in bringing the top of the foot toward the front of the leg. Equinus can occur in one or both feet.
- ▶ It is use for Medio lateral instability
- ▶ Use in foot drop
- ▶ Hemiplegic and para plegic
- ▶ Fracture
- ▶ Price Rs8500





# AFO with Tamarac Ankle joint

- ▶ The Tamarack Flexure Joint is recognized and used worldwide in the orthotic & prosthetic industry due to its high strength tension load-bearing element, which provides smooth articulation and unmatched durability. Tamarack Flexure Joints are lightweight, cost effective, and easy to install in custom and semi-custom thermoplastic and laminated orthopedic bracing applications.

- ▶ Price Rs5800



# Carbon fibre AFO

- ▶ Carbon fiber will **provide more energy return**. Carbon fiber may be made stiffer and stronger. Carbon fiber AFOs can be made lower profile. There is a weight saving over plastic variants.
- ▶ One of the main reasons is that they are half the weight of traditional materials. For many patients, this makes a tremendous difference in their ability to go about daily tasks.
- ▶ Studies have also found that carbon fiber helps to store energy from movement, creating a spring-like action, making forward movement that much easier. This is especially helpful for those with “drop foot”. The calf muscle even gains muscle mass from improved function in some patients.
- ▶ **Price start from Rs18000 up to Rs36000**



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# AFO with front support

- ▶ Front side covered Afo are also available
- ▶ These are useful where some patella tendon support required or where knee push is required like weakness of quadriceps muscle
- ▶ Price Rs6800 up to Rs40000



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# TURBOMED AFO

- ▶ Foot drop is a condition that causes postural and movement difficulties. To correct this problem get back to life as usual, count on foot drop orthotics braces that last. Simply contact us, and you'll have the right ankle foot orthotics for your needs.
- ▶ By choosing a custom-made AFO brace, you will be good as new in terms of your normal abilities in a short time. You will be able to walk as well as run, and with less effort. Fill out a request and get all the details about your next foot drop brace for walking and running.

▶ Price Rs36000



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# Knee ankle foot Orthosis



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# Trial Version Of KAFO Coming Soon.....

- ▶ A Knee-Ankle-Foot Orthosis (KAFO) is a custom made brace that starts above the knee and extends all the way down the leg to the end of the toes. These braces will normally include a knee joint and possibly an ankle joint as well. A KAFO is prescribed by your physician when there is significant weakness and/or instability at the knee and ankle joints. The KAFO will allow patients to stand by locking the knee joint in the brace when the thigh muscles are too weak to support the knee. This brace can also reduce significant knee hyperextension (genu recurvatum) during the gait cycle. KAFOs can be extended to the hip to provide additional support to the hip joint if necessary.
- ▶ The KAFO is commonly used in the treatment of:  
1-Blount's Disease 2-Genu Recurvatum 3-Post-Polio  
4-Spinal Cord Injury 5-Arthrogyryposis 6-Cerebral Palsy  
7-Polio 8-Spina Bifida
- ▶ At your initial assessment you will meet with your Orthotist to go through a complete assessment of your strength and range of motion and undergo an observational gait analysis. There are many different designs of KAFOs, each with different functions and levels of support. In collaboration with your Orthotist at OrthoProActive and your health team, we will determine which KAFO design will help to provide you with the best functional outcomes.
- ▶ Per assessment Rs2000



# KAFO with drop lock Indian Made



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- ▶ A KAFO is a device that is used to control instabilities in the knee and lower limb by maintaining proper alignment and controlling motion. Instabilities can be caused by broken bones, arthritic joints, hyperextension of the knee, muscle weakness and/or paralysis. As there are many different reasons that a person may need to utilize a KAFO, there are many different designs for a KAFO based on necessity.
- ▶ It is made up of Indian Made drop Lock knee Joint
- ▶ We manufacture the Orhtosis by POP casting, that's why it give proper fitment.
- ▶ **price15000**

# KAFO with drop lock Imported quality

- ▶ The term KAFO is an acronym that stands for Knee-Ankle-Foot Orthosis and describes the part of the body that this device encompasses. This device extends from the thigh to the foot and is generally used to control instabilities in the lower limb by maintaining alignment and controlling motion. Instabilities can be either due to skeletal problems: broken bones, arthritic joints, bowleg, knock-knee, knee hyperextension or muscular weakness and paralysis. With this in mind, the indications for the use of a KAFO are many and varied and any one particular design is specific to the needs of the person it is made for.
- ▶ It is very light weight and more durable.
- ▶ Price Rs24500



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# KAFO with CAM Lock

- ▶ **Product Overview** Clean, streamlined appearance
- ▶ Secure and long wearing
- ▶ Stainless steel joint
- ▶ Aluminum or stainless steel bars
- ▶ Available in small, medium, and large

Price Rs28000



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# KAFO with Offset Knee Joint drop lock type.

- ▶ A knee-ankle-foot orthosis (KAFO) consists of a plastic AFO or an AFO with metal uprights, a mechanical knee joint, and a plastic thigh cuff or 2 metal thigh bands. KAFO's can be used in quadriceps paralysis or weakness to maintain knee stability and control flexible genu valgum or varum.
- ▶ KAFO's are also used to limit the weight bearing of the thigh, leg, and foot with quadrilateral or ischial containment brim. A KAFO is more difficult to don and doff than an AFO, so it is not recommended for patients who have moderate-to-severe cognitive dysfunction.
- ▶ The most common causes of muscle weakness include:
  - Poliomyelitis
  - Muscular Dystrophy
  - Multiple Sclerosis
  - Spinal cord injury
- ▶ **Price Rs18000**



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# Stance control KAFO (Full Stride)

- ▶ The FullStride is a mechanical stance control orthotic knee joint that utilizes a low-profile cabling system to automatically unlock at the end of stance phase. At the end of swing phase, when the orthotic knee joint reaches full extension, the locking mechanism reengages to provide knee stability for stance phase. When necessary, the stance control capability of the FullStride can be easily converted into a traditional automatic bail lock.
- ▶ It give more natural Gait
- ▶ If we add a Pneumatic cylinder it will assit the quadriceps muscle and patient feel more comfortable.

- ▶ Price Rs1,80,000



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# Safety Stride KAFO

- ▶ The SafetyStride is a mechanical stance control orthotic knee joint that utilizes a low-profile cabling system to automatically unlock itself at the end of stance phase. The key feature of the SafetyStride is its ability to resist knee flexion at any angle. The SafetyStride does not require full 180° knee extension to resist knee flexion in stance phase. Designed to unlock at terminal stance, an internal lever re-engages during swing phase to ensure knee joint stability prior to heel contact. Individuals who intermittently fail to reach full extension will now have the added security and stability they require while ambulating. The SafetyStride works in conjunction with the FullStride and can be easily installed on a FullStride equipped KAFO.
- ▶ It give more natural Gait
- ▶ If we add a Pneumatic cylinder it will assit the quadriceps muscle and patient feel more comfortable.
- ▶ Price Rs2,24,500



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# Active KAFO

- ▶ The Active plus-Knee comes furnished with a pneumatic spring on the lateral side of the joint to assist with knee extension during the swing phase of gait.
- ▶ A medial knee joint is also included to help control knee alignment and give Medio lateral stability.
- ▶ The active plus -Knee is a free motion knee joint that is designed to provide extension assist, not prevent knee flexion. Available with your choice of a 75N, 125N (for standard applications), or 175N pneumatic spring.
- ▶ Price Rs1,15,500



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# Neurotronic KAFO

- ▶ The Neurotronic knee joint system is a sophisticated electro mechanical knee control component designed specifically for people with knee extensor weakness, knee instability or loss of knee control and sets the benchmark for this class of limb control technology.
- ▶ The Neurotronic is incorporated into a discreet lightweight carbon frame, locking automatically in stance phase and free moving in swing phase. In stance phase, the Neurotronic stabilises the knee in any position to enable the user to safely load the effected limb even when the knee joint is flexed or bent. During swing phase, the Neurotronic allows the knee to move freely to achieve a natural gait pattern without the compensations seen with conventional designs.
- ▶ The electromechanical knee joint system is controlled either by a pressure sensor under the foot piece or by motion sensors integrated in the controller. The control mechanism incorporates an inclinometer and accelerometer motion sensors that detect the movement and position of the lower leg.
- ▶ When standing with the orthosis or just before heel strike, the motion sensors lock the Neurotronic system knee joint. The motion detection is sensitive to speed and the joint will lock regardless of length and speed of steps and regardless of a hill gradient.
- ▶ Price Rs 5,50,000



# Foot Sensor Knee joint KAFO Indian Made

- ▶ Stance control recently listed its products on IndiaMART to reach out to Patients and Doctors all across the world with its products.
- ▶ Products:
- ▶ Waltronic Stance Control Electro-Magnetic Knee ankle foot orthoses (KAFO)
- ▶ Waltronic Stance Control Electronic KAFO
- ▶ A foot sensor will help to lock and unlock the knee with proper timing to give natural gait.
- ▶ It has battery which need regular charging 4 to 6 hour to operate the orthosis
  
- ▶ Price Rs28,0000



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# HIP KNEE ANKLE FOOT ORTHOSIS



Use for 1-Spinal code Injury  
2-Paraplegic /hemiplegic, 3-Poliomilatis



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# HKAFO

- ▶ The term HKAFO is an acronym that stands for hip-knee-ankle-foot-orthosis and describes the part of the body that this device encompasses. This device is basically a [KAFO](#) with the addition of a hip joint and pelvic section.
- ▶ The addition of the hip joint and pelvic section provides control to selected hip motions. These selected motions about the hip are front to back, side to side, and rotation. One reason the hip section is added to a KAFO is to reduce or minimize the risk of the hip moving out of proper position or dislocating.
- ▶ Another common reason is to [stabilize the hip and lower spine](#) in cases where the patient is weak or paralyzed. One common application of HKAFO is RGO, or, [reciprocal gait orthosis](#), which helps move one hip upon moving the other hip and encouraging a normal gait.
- ▶ Price Rs450000 for bilateral - One side is -Rs25000
- ▶ Price with Cam lock Rs 78000-One side is -Rs38000



# Reciprocating Gait Orthosis

- ▶ The term Reciprocating Gait Orthosis refers to a unique form of HKAFO (see HKAFO site). This device is generally a right and left KAFO (see KAFO site) connected to a pelvic section with a reciprocating mechanism. This type of device is used with children who suffer from paralysis of the lower trunk, hips, and lower extremities.
- ▶ The [KAFO sections](#) control the lower extremities and maintain them in proper walking alignment. The purpose of the reciprocating pelvic section is to control the hips and lower trunk and prevent simultaneous hip flexion. Extension of one hip causes the simultaneous or reciprocal flexion of the other hip, thereby enabling the [child to take a step](#). The child uses upper trunk, shoulder, and arm muscles to operate the device with the assistance of either crutches or a walker. This device is usually limited to use in therapy or household walking.

- ▶ Price INDIAN MADE TYPE-Rs1,85,000
- ▶ Price for Imported type- Rs 4,50,000



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Evolution Healthcare Pvt.Ltd. (Mumbai)Prosthetic & Orthotic Centre ( S K E P O C)41(basement) Mona shopping centre , Mona appartments,next to Navrang Cinema, i.c.i.c.i. bank bldg. J.P.road, Andheri(w), Mumbai 400058Timings - 11 a.m to 7p.mSUNDAY CLOSEDPh.no. - 09820025442 09819499534

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Thank You