

ORTHO
SYSTEMS

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Years in motion



Excellence in Neuro-Orthopedics

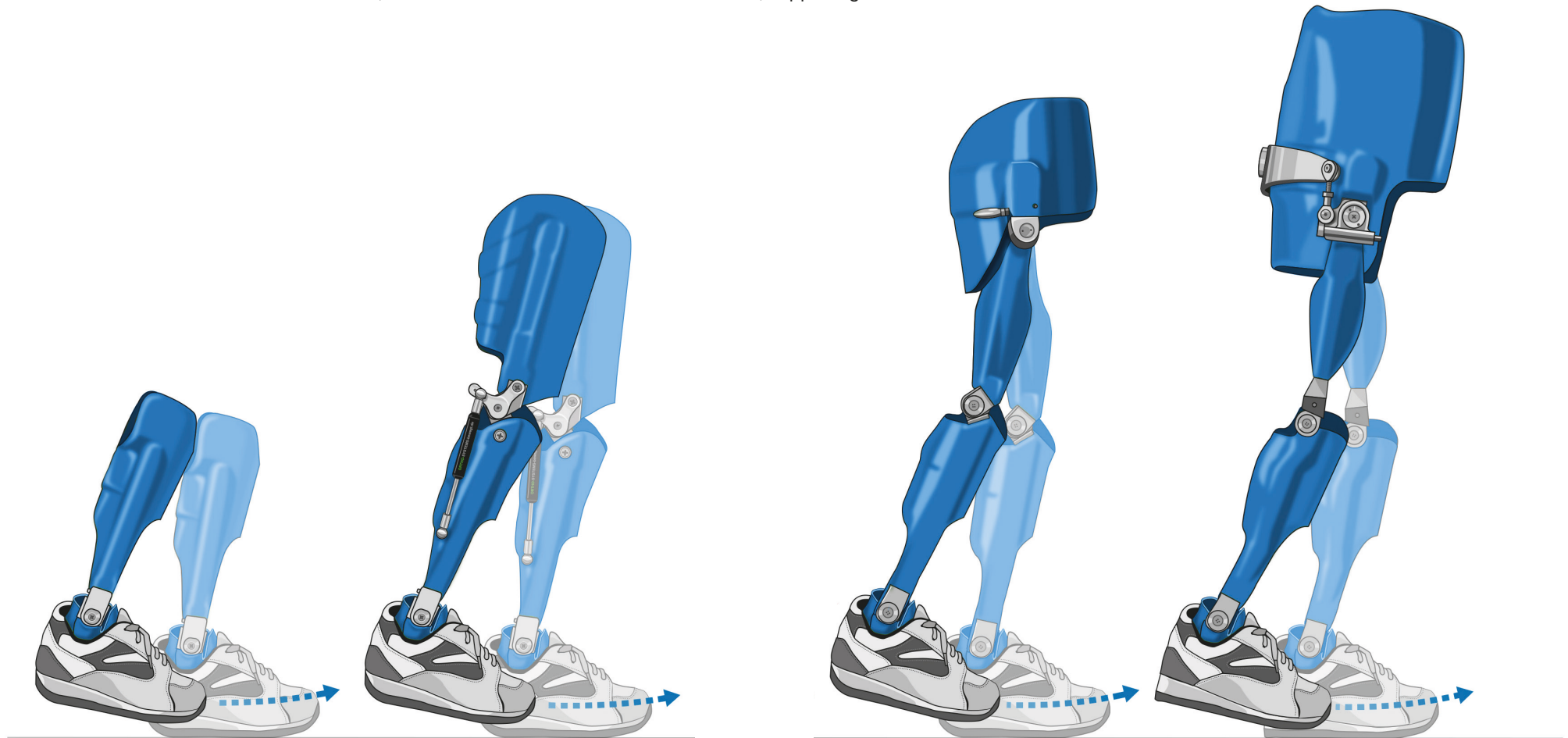
Your Patient – Our Contribution

Catalogue
Excerpt

Orthotics 14.0
Valid from July 2026

AFO to RGO in the Swing Phase

In **AFO** and **KAFO** orthoses, ankle joints with a fixed dorsiflexion stop are often recommended. The dorsiflexion stop defines the load line and prevents it from shifting during use. For this application, we offer slim, lightweight, and robust ankle joints that do not require additional force units. These joints provide uncomplicated foot-retaining function during swing phase using joint friction, with quiet operation and no need for springs. The friction can be adjusted as required. The foot is maintained in maximum dorsiflexion, and at heel strike the friction acts as a brake, supporting a controlled transition to foot flat.



Jumper
Naveta
Shuttle
Basic

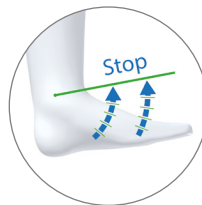
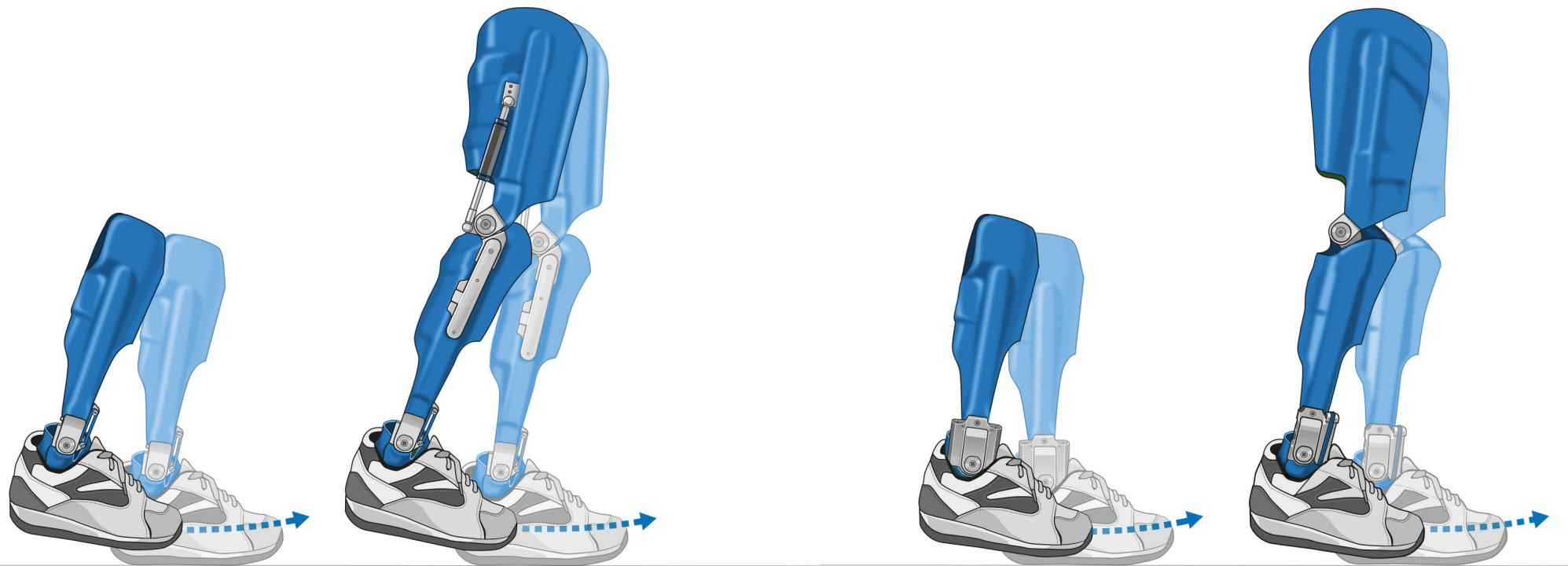


Since **HKAFOs** and **RGOs** are always aligned when resting on the dorsiflexion stops, ankle joints with power units that can influence or shift the load line are not suitable, as they pose a safety risk. If no ankle joints are used in these orthoses, the wearer's freedom is restricted in several important aspects. In particular, the lack of ankle movement during walking results in a shortened step length, significantly reducing mobility and increasing energy expenditure. Stance stability is also affected, as minor forward and backward movements of the trunk are not absorbed by small shifts in the load line within the ankle joint's range of motion, but are instead transmitted directly to the ground.

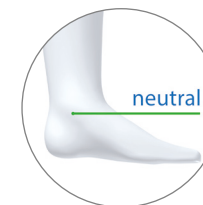
AFO and KAFO in the Swing Phase

In patients for whom friction-based, foot-retaining ankle joints are not sufficient, for example when the foot actively pushes into plantarflexion, a dorsiflexion-assist joint with tension bands is a better option. This provides increased dorsiflexion force, significantly reducing the risk of tripping, while acting as a brake at heel strike and supporting a smooth heel rocker. Friction within the joint ensures quiet operation.

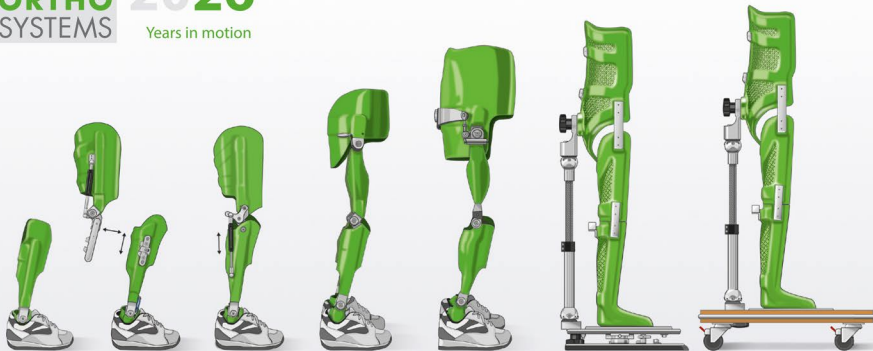
Ankle joints incorporating one or two force units utilize this force to help the patient stand more upright, reducing effort at the knee and hip. During the swing phase, the joint returns to the neutral position. Increased dorsiflexion occurs only during the stance phase, when the force unit is compressed by a shift in the center of gravity.



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