

## Carbon Fiber Ankle-Foot Orthosis (AFO)





## **Key Benefits**

- Up to 75% thinner and lighter than traditional plastic AFOs
- Lightweight but strong
- High energy-storing capability
- Dynamic response to optimize performance
- Greater durability
- More efficient, confident walking

## **General Description**

Ankle-foot orthoses (AFOs) are worn to provide support for the ankle and foot, most often for patients with foot-drop conditions associated with stroke, spinal cord injury, muscular dystrophy, cerebral palsy, polio, or multiple sclerosis. They are available in a variety of designs sized or customized to fit the individual patient.

The AFO is usually attached to the calf of the leg, with a supportive footplate that fits inside the shoe to counteract foot drop and allow better control of the foot during walking. The design may be either solid or jointed at the ankle to allow additional freedom of movement.

Traditionally crafted of plastic, AFOs have recently been improved and strengthened by layering or impregnating the plastic with carbon fibers, which have great energy-storing capabilities. The carbon fiber AFO returns that energy during walking, providing extra propulsion during toe-off and making ambulation easier and more comfortable for the wearer.

Since the carbon fiber material makes the AFO much stronger and more durable, the brace can be much thinner and lighter in weight—and far less cumbersome and heavy. A thinner device fits more comfortably inside footwear, and its weight—as much as 75% lighter than a brace made from traditional plastic materials—leaves the wearer far less fatigued at the end of the day.

Consult your practitioner for instructions for putting on your brace and making comfort adjustments, as necessary.