



# Breakthrough Podiatry

A revolution in foot care

## BIOMECHANICAL ORTHOTIC DEVICE

A biomechanical orthotic device, as utilized by a Podiatrist in a therapeutic regimen, is a foot orthosis whose purpose is to create the maximum efficiency of foot motion around the various major axes of motion, i.e., Sub Talar joint and Longitudinal and Oblique Axes of the Mid Tarsal Joint, as well as the Axes of the First and Fifth segments of the foot and the Intermediate segments. This facilitates the transmission of weight and stress sequentially in a normal efficient pattern thereby reducing or halting mechanical trauma to the entire skeletal structure.

A Biomechanical (functional) foot orthosis is a unit which looks, in its appearance, like an arch support. Yet, it is not an arch support, and must not support the arch. It is a unit which is made from a digital scan, utilizing an AMFIT scanner, of a patient's foot, or from a plaster foot cast. This model must embody the Quantified Structural and Positional Relationships of the leg to the foot, the foot to the Transverse Plane and the Forefoot to the Calcaneal Bi-Section. The device itself is then milled by the AMFIT milling machine out of an Ethyl Vinyl Acetate (EVA) blank of specified density, to the exact specifications of the modification of the digital scan, or by a prescription foot orthotic laboratory of Dr. Williams' choice. The complete prescription causes Phasic and Sequential motions to take place in the feet, legs, pelvis, and the spine.

Biomechanical Orthotic Devices are used: to reduce symptoms in acute cases; to reverse degenerative disease due to mechanical trauma; to avoid the necessity of surgery; to speed and improve post surgical healing and results; and to insure against the recurrence of acute and traumatic episodes. Therefore, they are considered to be medical necessities much the same as other types of retaining and positional orthoses. These devices are needed to prevent further deformities. Also, they may be transferred to different types of shoes.

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