

Navigator

Navigator incorporates an inverted Multiflex-style articulation (designed with simplified field servicing compared to Multiflex) with a keel designed specifically for the biomechanics of K2 users. The lowering of the joint increased PF motion compared to a traditional Multiflex. The combination of the keel shape and the ankle movement allows ground adaptation and a smooth rollover. The keel length is designed for those with a shorter step length, to allow the progression of the body centre-of-mass over the end of the toe.

Clinical Outcomes using Navigator

With respect to **MOBILITY**

- Shorter keel allows for more consistent rollover radius of curvature, regardless of changing footwear¹
- The most energy efficient radius of curvature for a rollover shape has been identified as 30% of the walker's leg length. For a person of a typical adult height between 1.5m and 1.8m, this equates to approximately 245-290mm. Navigator has a rollover shape of ~250mm¹.

Clinical Outcomes using Multiflex-style ankles

Multiflex was the “habitual” foot for all or majority of participants in 13 different studies²⁻¹⁴.

With respect to **SAFETY**

- Low stiffness at weight acceptance leads to early foot-flat and greater stability for lower mobility patients¹⁵
- No loss of stability during standing with Multiflex than fixed ankle/foot¹⁶
- Easier to walk on uneven ground with Multiflex than fixed ankle/foot^{16,17}
- Easier to walk up a slope with Multiflex than fixed ankle/foot¹⁶

With respect to **MOBILITY**

- Little to no difference in gait mechanics compared to flexible, “energy storing” prosthetic feet¹⁸
- Increased prosthetic ankle range-of-motion with Multiflex compared to fixed ankle/foot^{16,17,19-21}
- Increased prosthetic ankle power with Multiflex compared to fixed ankle/foot¹⁷
- Prosthetic rollover shape closer to natural biomechanics than fixed ankle/foot¹⁹
- Users can walk longer distances and report “smoother” gait with Multiflex compared to fixed ankle/foot¹⁷
- Benefits in mobility for bilateral users^{17,19-21}

With respect to **RESIDUAL LIMB HEALTH**

- Equivalent socket comfort to higher technology, energy-storing feet²²

With respect to **LOADING SYMMETRY**

- Improved stance phase timing symmetry with Multiflex compared to fixed ankle/foot²¹
- Reduced sound limb loading with Multiflex compared to fixed ankle/foot²¹

With respect to **USER SATISFACTION**

- Majority of users rate Multiflex as either “good” or “acceptable”²³ and prefer Multiflex to fixed ankle/foot¹⁷

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