Push®
Ankle Foot Orthosis AFO

A comparative study



Push AFO a comparative study

A comparative study was conducted by Maastricht University Medical Center (MUMC+), commissioned by the manufacturer.

The study was based on these primary conditions

- Comfortable walking speed
- Patient conditions: walking without support, walking with a Push AFO, Healthy reference values obtained from the database

How does Push AFO impact a patient's gait pattern?

Kinematic pattern of the ankle

Figure 1 illustrates the effect of the Push AFO on ankle angle throughout the gait cycle, with the most pronounced difference observed at toe-off.

How does Push AFO's functionality relate to a carbon-based orthosis?

Step Time Asymmetry (%)

Figure 2 presents a comparison of the Push AFO and a carbon-based orthosis in a patient, alongside reference values from healthy individuals.

The resulting step asymmetry between the left and right leg is shown under three conditions: walking unsupported, walking with a carbon-based orthosis, and walking with a Push AFO.

The findings indicate that the Push AFO promotes a more symmetrical and therefore more stable and energy-efficient gait pattern.

Figure 1

Improved gait efficiency

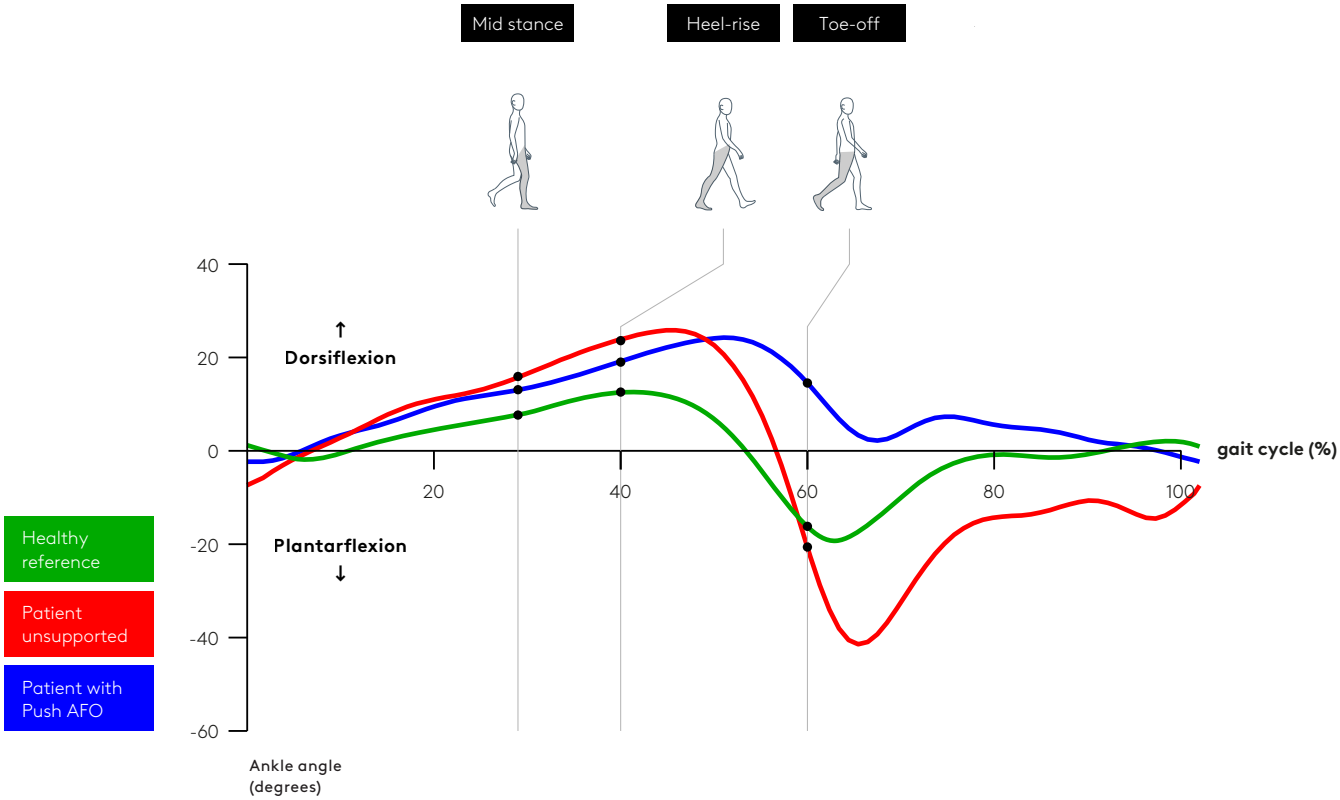
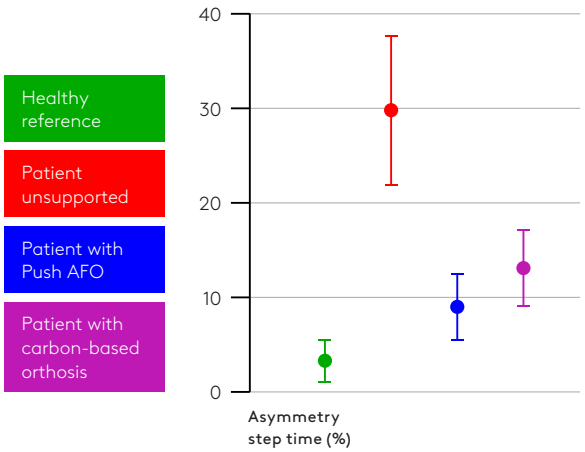


Figure 2

More fluid walking motion





Conclusion: Push AFO – a comparative study

- Push AFO ensures a more stable, symmetrical gait pattern, whereby the foot drop is compensated.
- From a mechanical point of view, Push AFO performs comparably to a conventional carbon-based dynamic orthosis.

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