

Adaptive 2 Knee

The Adaptive 2 knee name is appropriate inasmuch as it truly describes the function of this design. The microprocessor continuously monitors each step that the wearer takes to monitor changes in walking speed, ground conditions such as uneven terrain or ramps, slopes or stairs or stability of the wearer. When the microprocessor registers a change in the walking pattern, the knee will automatically “adapt” to the change and adjust the knee settings to ensure the knee is in the most stable and appropriate setting.

The Adaptive 2 knee combines the benefits of a microprocessor controlled knee with the stability of hydraulics and the smooth natural movements from pneumatics. For the stance phase, the knee resistance is controlled by hydraulic fluids: when the microprocessor identifies a change in the gait pattern during stance, the microprocessor will adjust internal valve settings to increase or decrease the hydraulic pressure within the knee to ensure the appropriate degree of resistance to knee flexion.

When the knee is in swing phase of walking, the microprocessor monitors and adjusts a pneumatic system to ensure the knee has a smooth and natural motion which reduces the amount of energy during gait.



Key Benefits and Features Unique to the Adaptive 2

Durable and Strong

The Adaptive 2 knee is designed and fabricated using the time tested and proven techniques from Endolite. The carbon graphite frame and reinforced structure make it extremely durable and able to withstand significant stress and strain.

Versatile and Adaptable

The Adaptive 2 knee can be used with any style or model of prosthetic foot from any manufacturer. This allows the wearer to enjoy the functions and features of prosthetic feet that may have been used on previous prosthetic devices.

Smooth Natural Gait

For those individuals that walk long distances and maintain uniform walking patterns (meaning they do not change speeds many times a day and walk on level ground), the Adaptive 2 knee provides a very smooth and natural walking motion due to the responsive characteristics of the pneumatic swing phase control.

Extended Battery Life

Because the Adaptive microprocessor is continually monitoring for a *change* in the wearer's walking pattern, depending upon the day-to-day activities of each individual, the battery life can last up to 4 weeks. In addition, there are both disposable battery and rechargeable battery options with the Adaptive 2 Knee.