C-Leg in limited community ambulators

Cognitive demand

**Major Findings**

With C-Leg compared to NMPKs:

→ Perceived ability of multitasking while walking improved by 21%
→ Walking velocity during ambulation with an attentional demand increased by 12%

**Improvements in multitasking while walking with C-Leg in K2 subjects**

Multitasking while walking was an outcome of the prosthetic evaluation questionnaire (PEQ) addendum. Subjects rated the perceived difficulty of multitasking while walking with a Visual Analog Scale (VAS) with scores from 0 to 100, where 100 represents the maximum score. (Hafner et al. 2009)

**Clinical Relevance**

Cognitive demand in walking is investigated in studies to determine how much attention has to be paid on walking. This is important when another activity has to be performed at the same time as it is very common in daily living.

**Summary**

K2 subjects reported that multitasking while walking improved by 21% with C-Leg compared to NMPKs. Furthermore, due to transition from NMPKs to C-Leg, walking velocity during ambulation with an attentional demand increased by 12%. As an attentional demand, subjects were given a verbal reverse-numbers test as they walked two sides of a busy city block (Hafner et al. 2009).

**References of summarized studies**