Evidence Essentials
Kenevo/Microprocessor Knees for K2

	Mobility need or deficit of the patient	Evidence for benefits of Kenevo/MPK vs. NMPK in K2 patients
Safety	Patient stumbles and/or falls repeatedly Patient avoids activities due to fear of falling Patient sustained fall-related injuries	- **Significant reduction in falls of up to 80%** (Hahn et al., 2021; Davie-Smith et al., 2021; Kaufman et al., 2018; Mileusnic et al., 2017; Wong et al., 2015; Hahn et al., 2015; Kannenberg et al., 2014; Hafner et al., 2009; Kahle et al., 2008) - **Significant reduction in fear of falling** (Hahn et al., 2021; Jayaraman et al., 2021; Mileusnic et al., 2017; Wong et al., 2015; Hahn et al., 2015) - **Significant reduction in the frequency of stumbles** (Mileusnic et al., 2017; Kannenberg et al., 2014; Hafner et al., 2009) - **Significant improvements in balance and indicators for the risk of falling, such as Timed-up-and-go-test, ABC scale, PEQ Addendum; Modified Falls Efficacy Scale, etc.** (Hahn et al., 2021; Davie-Smith et al., 2021; Jayaraman et al., 2021; Lansade et al., 2018; Hahn et al., 2016; Wong et al., 2015; Kannenberg et al., 2014; Burnfield et al., 2012; Hafner et al., 2007 and 2009)
Mobility	Patient has difficulty negotiating slopes/hills	- **Significant improvement in quality of slope descent towards more natural gait pattern** (Kannenberg et al., 2014; Burnfield et al., 2012; Hafner et al., 2009) - **Significant increase in downhill walking speed of up to 36%** (Kannenberg et al., 2014; Burnfield et al., 2012; Hafner et al., 2009) - **Significant improvement in patient-reported slope ambulation** (Hahn et al., 2016)
Mobility	Patient has difficulty negotiating uneven terrain and obstacles	- **Significant increase in walking speed on uneven terrain and obstacle courses of up to 20%** (Kannenberg et al., 2014; Hafner et al., 2009; Kahle et al., 2008) - **Significant improvement in patient-reported uneven terrain and obstacle negotiation** (Hahn et al., 2016)
Mobility	Patient has difficulty descending stairs with reciprocal (step-over-step) gait	- **Significant improvement in quality of stair descent towards more natural gait pattern** (Kannenberg et al., 2014; Hafner et al., 2009; Kahle et al., 2008;) - **Significant improvement in patient-reported stair ambulation** (Hahn et al., 2016)
Mobility	Patient has difficulty with dual tasking while walking with the prosthesis	- **Significantly improved capacity and performance in executing a concurrent task while walking with the prosthesis** (Mileusnic et al., 2017; Hahn et al., 2016; Hahn et al., 2015; Kannenberg et al., 2014; Hafner et al., 2009)

Mobility	Patient has difficulty with performing activities of daily living	- **Significantly improved performance in the execution of various activities of daily living** (Kannenberg et al., 2014; Theeven et al., 2011 and 2012) - **Significant improvement in PRQ Ambulation and PEQ Utility** (Hahn et al., 2021) - **Almost significant (p=0.056) but clinically meaningful improvement in patient-reported mobility (PLUS-M)** (Davie-Smith et al., 2021)
Mobility	Patient is limited in his/her mobility Patient uses a wheelchair and a prosthesis	- **Significant increase in over-ground walking speed of up to 25%** (Hahn et al., 2021; Davie-Smith et al., 2021; Jayaraman et al., 2021; Eberly et al., 2014; Kannenberg et al., 2014; Kahle et al., 2008) - **Significant improvement in distance walked in the 2-minute walk test** (Davie-Smith et al., 2021) - **Significant reduction in additional use of a wheelchair from 87% to 37% of subjects** (Mileusnic et al., 2017) - **Patients spent significantly more time active and significantly less time sitting** (Kaufman et al., 2018) - **About 50% of K2 patients are able to improve their overall mobility level to K3** (Hahn et al., 2021; Hahn et al., 2016; Hahn et al., 2015; Kannenberg et al., 2014; Hafner et al. 2009; Kahle et al., 2008)
Quality of life	Patient has reduced quality of life	- **Significant improvement in health-related quality of life** (Davie-Smith et al., 2021)

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