

### Advanced Prosthetic Technology for Physical Therapy Professionals

- I. Introduction: Housekeeping and brief review of prosthetic history
- II. Review terminology and acronyms in prosthetics
  - a. Acronyms for anatomy
  - b. Acronyms for componentry
- III. Categories of advanced technology
  - a. Microprocessor Feet
  - b. Microprocessor Knees
  - c. Carbon-alternative feet
  - d. Pylons
  - e. Socket Technology

In-depth look at categories

Category	Benefits	Differentiators	Contraindications	Examples
MPF				
MPK				
Carbon-alternative feet				
Pylons				
Socket Technology				



Patient Selection

K0	This patient does not have the ability or potential to ambulate or transfer safely with or without assistance and a prosthesis does not enhance their quality of life or mobility.	Not eligible for prosthesis	Not eligible for prosthesis
K1	This patient has the ability or potential to use a prosthesis for transfers or ambulation on level surfaces at fixed cadence - a typical limited or unlimited household ambulator.	External keel, SACH feet or single axis ankle/feet	Single-axis, constant friction knee
K2	This patient has the ability or potential for ambulation with the ability to traverse low-level environmental barriers such as curbs, stairs, or uneven surfaces - a typical community ambulator.	Flexible-keel feet and multi-axial ankle/feet	Single-axis, constant friction knee
K3	The patient has the ability or potential for ambulation with variable cadence - a typical community ambulator with the ability to traverse most environmental barriers and may have vocational, therapeutic, or exercise activity that demands prosthetic use beyond simple locomotion.	Flex foot and flex-walk systems, energy storing feet, multi-axial ankle/feet, or dynamic response feet	Fluid and pneumatic control knees
K4	The patient has the ability or potential for prosthetic ambulation that exceeds basic ambulation skills, exhibiting high impact, stress, or energy levels - typical of the prosthetic demands of the child, active adult, or athlete.	Any ankle foot system appropriate	Any ankle knee system appropriate

Resource: Medicare LCD for lower limb prosthetics on the CMS website.

Measuring effectiveness of component change in a trial

10 MWT

AMP

L-test

6 MWT

Resources: [www.rehabmeasures.org](http://www.rehabmeasures.org)

<http://www.ncbi.nlm.nih.gov/pubmed/15982169>

Breakout sessions with large group review

Case 1 Notes:

Case 2 Notes: