

<b>BLUE CROSS OF NORTHEASTERN PA "BCNEPA" MEDICAL POLICY BULLETIN</b>	<b>MANUAL:</b> MEDICAL POLICY
	<b>REFERENCE NO.:</b> MPO-490-0153
<b>EFFECTIVE DATE</b> October 1, 2007	<b>SUBJECT:</b> Microprocessor-Controlled Prosthetic Knees

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**Blue Cross of Northeastern Pennsylvania ("BCNEPA") Medical Policy**

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical policy and claims payment policy are applied. Policies are provided for informational purposes only and are developed to assist in administering plan benefits and do not constitute medical advice. Treating providers are solely responsible for medical advice and treatment. Policies are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and information are constantly changing and BCNEPA may review and revise its medical policies periodically. Also, due to the rapid pace of changing technology and the advent of new medical procedures, BCNEPA may not have a policy to address every procedure. In those cases, BCNEPA may review other sources of information including, but not limited to, current medical literature and other medical resources, such as Technology Evaluation Center Assessments (TEC) published by the Blue Cross Blue Shield Association. BCNEPA may also consult with health care providers possessing particular expertise in the services at issue.

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**I. DESCRIPTION:**

Microprocessor-Controlled Prosthetic Knees are prosthetics that are equipped with a sensor that detects when the knee is in full extension and adjusts the swing phase of ambulation automatically. This permits the wearer to have a more natural walking pattern at various speeds. This improved ambulation control may provide increased safety, stability, and function.

**II. BENEFIT POLICY STATEMENT:**

Benefits are determined by the Member's fully insured policy or the administrative services only agreement applicable to the Self-Funded plan Participant that is in effect at the time services are rendered.

**III. MEDICAL POLICY STATEMENT:**

A. BCNEPA shall provide coverage for a microprocessor knee in amputees when:

**All of the following are met:**

1. Demonstrated patient need for regular ambulation on uneven terrain or for regular use on stairs (use of the limb for limited stair climbing in the home or employment environment is not sufficient evidence for prescription of this device over standard prosthetic application).
2. Physical ability, including adequate cardiovascular and pulmonary reserve, for ambulation at faster than normal walking speed.

3. Adequate strength and balance to stride to activate the knee unit.
4. Should not exceed the weight or height restrictions of the device.
5. Adequate cognitive ability to master technology and gait requirements of device.

**AND, one of the following is met:**

1. Hemi-pelvectomy through knee-disarticulation level of amputation, including bilateral lower extremity amputees are candidates if they meet functional criteria as listed.
  2. Patient is an active walker and requires a device that reduces energy consumption to permit longer distances with less fatigue.
  3. Daily activities or job tasks that do not permit full focus of concentration on knee control and stability – such as uneven terrain, ramps, curbs, stairs, repetitive lifting and/or carrying.
  4. Medicare Level K2 – limited community ambulatory, but only if improved stability in stance permits increased independence, less risk of falls, and potential to advance to a less restrictive walking device, and patient has cardiovascular reserve, strength, and balance to utilize the prosthesis. *The microprocessor enables fine-tuning and adjustment of the hydraulic mechanism to accommodate the unique motor skills and demands of the functional level K2 ambulator.*
  5. Medicare Level K3 – unlimited community ambulator.
  6. Medicare Level K4 – active adult, athlete, who has the need to function as a K3 level in daily activities.
- B. Physical and functional fitting criteria for new amputees:
1. New amputees may be considered if they meet certain criteria as outlined above.
  2. Pre-morbid and current functional assessment important determinant.
  3. Requires stable wound and ability to fit socket.
  4. Immediate post-operative fit is possible.
  5. Must have potential to return to active lifestyle.
- C. The following are contraindications for microprocessor knee usage:
1. Any condition which prevents socket fitting, such as a complicated wound or intractable pain which precludes socket wear.
  2. Inability to tolerate the weight of the prosthesis.
  3. Medicare Level K0 – no ability or potential to ambulate or transfer.

4. Medicare Level K1 – limited ability to transfer or ambulate on level ground at fixed cadence.
5. Medicare Level K2 – limited community ambulator that does not have the cardiovascular reserve, strength, and balance to improved stability in stance to permit increased dependence, less risk of falls, and potential to advance to a less restrictive walking device.
6. Inability to utilize swing and stance features of the knee unit.
7. Poor balance or ataxia that limits ambulation.
8. Significant hip flexion contracture (over 20 degrees).
9. Significant deformity of remaining limb that would impair ability to stride.
10. Limited cardiovascular and/or pulmonary reserve or profound weakness.
11. Limited cognitive ability to understand gait sequencing or care requirements.
12. Long distance or competitive running.
13. Falls outside of recommended weight or height guidelines of manufacturer.
14. Specific environment factors – such as excessive moisture or dust, or inability to charge the prosthesis.
15. Extremely rural conditions where maintenance ability is limited.

#### **IV. DEFINITIONS:**

Prosthetic: an artificial body part which replaces all or part of a body organ or which replaces all or part of the function of a permanently inoperative or malfunctioning body part.

Medicare Level K0: no ability or potential to ambulate or transfer.

Medicare Level K1: limited ability to transfer or ambulate on level ground at fixed cadence.

Medicare Level K2: limited community ambulator that does not have the cardiovascular reserve, strength, and balance to improved stability in stance to permit increased dependence, less risk of falls, and potential to advance to a less restrictive walking device.

Medicare Level K3: unlimited community ambulator.

Medicare Level K4: active adult, athlete, who has the need to function as a K3 level in daily activities.