

ORTHOTIC & PROSTHETIC SERVICES

CLINICAL PRACTICE RECOMMENDATION (CPR)

GENERAL PROSTHESES-ARTIFICIAL LIMBS

Successful rehabilitation and long-term care for individuals using artificial limbs involve a multifaceted approach, encompassing fitting, daily care, physical and occupational therapy, and addressing potential complications.



1. Initial Assessment and fitting

- **Interdisciplinary Team:** To optimize patient outcomes, an interdisciplinary team is crucial. The team includes: a Physical Medicine and Rehabilitation physician, a prosthetist, physical and occupational therapists, and potentially a surgeon and a psychologist.
- **Patient Evaluation:** To determine suitability for artificial limb, use and the most appropriate device type, a comprehensive evaluation that assesses the patient's overall health, physical condition, functional abilities, and the specific circumstances of limb loss (or congenital limb difference, neuromusculoskeletal, or disease-based) is necessary.
- **Rehabilitation Potential & Goals:** Factors such as motivation, cognitive function, and willingness to engage in rehabilitation are considered, along with the patient's lifestyle, vocational demands, and personal goals for prosthetic use.
- **Prosthetic Selection:** The prosthetist who designs the prosthesis plays vital role in matching the prosthesis to the patient's individual needs. Essential factors in selecting a prosthetic include patient goals, functional ability, lifestyle, specific requirements for activities of daily living, recreational use, task or vocational specific-use, and military needs.

2. Post-fitting and training

- **Socket Fit & Alignment:** Proper socket fit is paramount for comfort, stability, and the prevention of skin issues. Regular adjustments are needed, especially during the initial months, as the residual limb changes shape.
- **Physical Therapy:** Gait Training and Rehabilitation: Physical therapy plays a vital role in helping new users adapt to their prosthetics, develop core goals, and refine balance, gait patterns, transfers, and stair climbing, and refine gait efficiency.
- **Occupational Therapy:** Occupational therapy plays a vital role in helping new users adapt to their upper-limb prosthetics, and in teaching adaptation and independence in activities of daily living.
- **Advanced Training:** Advanced training focuses on activities such as negotiating stairs, returning to work, and participating in recreational activities, competitive sports, and activities specific to the military.

3. Long-term follow-up and psychosocial support

- **Regular Check-ups:** Promote lifelong care through routine visits with healthcare providers and a prosthetist for adjustments, maintenance, exploring new technology, and addressing any emerging issues.
- **Psychological Considerations:** Provide emotional support through peer visits, support groups, or working with a psychologist to help individuals adjust to the physical and emotional changes associated with limb loss.
- **Empowerment:** Encourage patients to participate in activities they enjoy, to promote confidence and independence

Lenhart, Martha, K. MD, PhD, COL, MC, US Army (Ed.). (2009). Textbooks of Military Medicine, Care of the Combat Amputee Care of the Combat Amputee. Office of The Surgeon General, Department of the Army, United States of America.

VA/DoD Clinical Practice Guideline for Rehabilitation of Individuals with Lower Limb Amputation. https://www.healthquality.va.gov/guidelines/Rehab/amp/LLA-CPG_2024-Guideline_final_20250110.pdf

VA/DoD Clinical Practice Guideline for the Management of Upper Limb Amputation Rehabilitation. https://www.healthquality.va.gov/guidelines/Rehab/ULA/VADoDULACPG_Final_508.pdf

The Next Step: The Rehabilitation Journey After Lower Limb Amputation. <https://health.mil/Reference-Center/Publications/2018/11/08/The-Next-Step-Handbook-2018>

Extremity Trauma and Amputation Center of Excellence, (EACE). <https://health.mil/Military-Health-Topics/Centers-of-Excellence/EACE>