



VA/DoD CLINICAL PRACTICE GUIDELINE FOR REHABILITATION OF INDIVIDUALS WITH LOWER LIMB AMPUTATION

Department of Veterans Affairs
Department of Defense

Patient Guide

QUALIFYING STATEMENTS

The Department of Veterans Affairs and the Department of Defense guidelines use the best and most recent information that is available at the time they are published. Guidelines provide information that providers, healthcare team members and patients can use to provide better care for individuals with lower limb amputation. They do not define a standard of care and you should not use them in this way. They are also not the only option for rehabilitation of lower limb amputation.

This Clinical Practice Guideline is based on a complete and organized review of both clinical studies and studies about how diseases affect the health and illness of groups of people. A panel of experts in a number of clinical fields developed this guideline. The Guideline clearly explains how different care options relate to health outcomes. To do this, the experts rated both the quality of the clinical studies and the strength of the recommendations.

It is normal for providers to vary in how they plan for rehabilitation of patients with low limb amputation because they take into account the needs of each patient, the available resources, and the limits that are unique to their healthcare setting or type of practice. Healthcare professionals should assess how well these Guidelines apply to each patient, and their clinical setting or situation. Patients can use the information in this Guideline to understand the different ways that lower limb amputation can be treated. This will help you discuss rehabilitation options with your provider and team. Working together, you can create a personalized rehabilitation plan that meets your needs.

These guidelines do not represent Department of Veterans Affairs or TRICARE policy. The Guideline recommendations for specific tests and/or treatments do not guarantee coverage of the patient's care by civilian providers or healthcare facilities. You can find more information on current TRICARE benefits at www.tricare.mil or by contacting your regional TRICARE Managed Care Support Contractor.

Version 2.0 – 2017

I. Amputation Rehabilitation Using the Care Team Approach

- The overall goal of rehabilitation after lower limb amputation is to reach your best level of health and independence in your walking, daily activities, and quality of life.
- The rehabilitation care team may include physicians, therapists, prosthetists, surgeons, nurses, and others involved in patient care. The patient is the most important member of this team.

Goals of Rehabilitation

- Manage painful conditions including residual limb and phantom limb pain
- Prevent injuries that sometimes occur in remaining limbs
- Improve and maintain physical health
- Become independent and safe in walking and self-care activities
- Participate in the community, return to work and free-time activities
- Maintain your emotional well-being
- Improve your quality of life
- Foster a healthy body image and high self-esteem
- Find satisfaction with your independence, your prosthesis, and your care team

A lot of things impact your recovery after amputation, such as your level of amputation, physical condition, diet, family support, emotional well-being, and personal motivation. A rehabilitation program that takes care of your physical needs and emotional well-being can help you have an independent life. Many patients are able to use a prosthesis, also called an artificial limb, but your care team can also help you become more independent in daily life without a prosthesis.

II. Expectations for Rehabilitation

Once you determine or identify your goals, your rehabilitation will likely include:

- Learning how to walk with your prosthesis
- Training in daily activities such as bathing, dressing, cooking, cleaning, shopping, and many others
- How to use tools that makes tasks easier
- How to care for your residual limb to help swelling, pain, sensitivity, skin care, and shaping
- Range of motion exercises and home exercises to help with strength, posture, and balance
- How to use devices such as wheelchairs, driving equipment, or work place tools
- Talking to others who had an amputation, such as individual peer visitors or peer support groups

III. Pain Following Amputation

A. Types of pain

There are different types of pain that you may have after surgery, such as:

- **Immediate post-surgical pain** – expected pain felt after surgery where skin, muscle, bone, and nerves are cut.
- **Residual limb pain** – pain that is felt in the remaining tissue of the amputated limb. It is an expected symptom after surgery. This pain may be caused by poor prosthetic fit, bruising, rubbing of the skin, or other factors.

- **Phantom limb pain** – pain felt to be in the part of the leg that was amputated. It may be the most difficult post-amputation pain to care for because it is not well understood.
- **Phantom limb sensations** – sensations that are commonly felt in the part of the leg that is missing. These are not painful and may be felt throughout your life.
- **Associated musculoskeletal pain** – pain that is felt in places other than the amputated limb, such as your back or other leg. This type of pain may be caused by overuse or motions that compensate for your missing limb. It may be made worse by the way you walk, your job, environment, and age.

B. Pain Management

Due to the different types of pain after limb loss, more than one treatment may be needed and may change over time. Your pain may be best managed when your care team monitors it during all phases of recovery. You should discuss options for medicine and other types of treatment with your care team. Always talk to your care team about the treatment plan to make sure it is safe and working well.

Goals of Pain Management
<ul style="list-style-type: none">■ Restore your physical function (your ability to move, exercise, and participate in life activities)■ Restore your emotional function (happiness and satisfaction with life)■ Restore your social function (activities and connections with others)■ Improve your quality of life■ Reconnect with what is important to you■ Return to a healthy lifestyle■ Understand your pain■ Take care of any sources of pain other than your amputation■ Take care of other health issues that can result from pain (for example, muscle weakness, poor sleep, poor diet)

IV. Phases of Rehabilitation Care

a. Surgical phase

In many cases, this phase begins when you and your care team talk about the need for an amputation. When there is an unplanned amputation due to trauma, this phase starts right after surgery. This phase ends when there is no infection, stiches are removed, and you have become independent in self-care activities. The care team checks your physical and mental status to understand your level of function. This helps them prepare you for recovery and lifetime care.

When possible before surgery, your care team should tell you about options for the level of amputation and the length of your residual limb. Soon after surgery, the care team should help you begin caring for your residual limb to help with healing. You should also talk to your care team about when to start physical rehabilitation and mobility training. It is important for your care team to discuss the type of medical equipment that you might need.

b. Pre-prosthetic phase

The goal of the pre-prosthetic phase is to prepare you for prosthetic fitting. During this phase, wound healing and pain control are managed and your rehabilitation continues. You must be physically and

mentally cleared by the care team before fitting a prosthesis. The pre-prosthetic phase ends with the fitting of a prosthesis. This phase will typically occur outside the hospital. Talk to your care team about which prosthetic devices might be best for you. Some of the things to consider might be your goals and activities. For example, if you had an amputation above the knee, a microprocessor knee unit might be a good option for you.

Prosthetic options

- No prosthesis
- Cosmetic prosthesis (for example, a prosthesis that is used only when sitting)
- Daily use prosthesis
- Activity specific prosthesis (for example, showering or running)
- Mechanical, microprocessor, or powered prosthesis
- Various sockets, knees, feet, joints, suspension systems

c. Prosthetic Training

This phase starts when you receive a prosthesis. It continues until you have become as independent as possible with your walking and function during daily activities. This phase involves prosthetic training, return to work and free time activities, and continued emotional support.

Once the prosthesis is ready for use, the prosthetist will educate you on:

- Terms for the prosthesis and its parts
- How the prosthesis works
- How you can get the most out of your prosthesis
- Limits and precautions of the prosthesis
- Care of the prosthesis

In prosthetic training you and your therapist will focus on:

- Putting on and taking off the prosthesis
- Discussing a schedule to wear the prosthesis
- Learning to care for your residual limb
- How to care for the prosthesis
- Training to use and control the prosthesis

Signs the prosthetic device may need to be modified

Report any of the following symptoms:

- Ongoing pain in the residual limb, other limb, or low back
- Skin irritation, rashes, or open sores
- Change in being able to take the prosthesis on and off
- Change in limb size
- Change in pattern of use

d. Lifelong care

The last phase of rehabilitation is lifelong care. This usually starts when the first prosthetic fitting and training is finished. If a prosthesis will not be used, the phase begins when you and your care team feel good about your level of function and medical stability.

The goal of lifelong care is to make sure you keep having independence in your daily activities. During this phase, you should return to your care team at least every 12 months for a follow-up visit. During these visits, the care team will let you know about new equipment or services that might be beneficial for you. They will also discuss changes in your goals or health to reduce any effects of long-term prosthetic use. You should also tell them about any changes to your health. Some health conditions or lifestyle choices may need to be addressed, for example smoking or having diabetes. Your care team may ask about these factors and refer you to other health care providers.

V. Questions to Ask Your Care Team

Ask about anything that seems unclear to you.

- How do I get occupational and/or physical therapy? How soon can I start therapy after surgery?
- What are my options for pain control?
- Are there exercises or methods that help with pain?
- How much and how often should I take my medications?
- How do I prevent problems with my residual limb?
- How do I know if I have an infection? How do I help my residual limb heal?
- How do I care for my incision at home?
- Will I get a prosthesis? What kind of prosthesis will be best for the types of activities I want to do?
- How do I take care of my prosthesis?
- How soon will I be able to stand in a prosthesis?
- When can I return to work?
- Will I be able to have intimate relations?
- What type of emotional support is available specifically for patients with limb loss?
- Where can I find information on peer support? Family support? Are there local groups that support a person like me?
- When will I be seen next? What do I need to schedule?

VI. You Can Find More Information on Rehabilitation Here:

- The patient information guide titled *The Next Step – Rehabilitation Journey after Lower Limb Amputation*: <https://www.qmo.amedd.army.mil/amp/Handbook.pdf>.
- Amputee Coalition website: www.amputee-coalition.org.