

Prosthetic Patient Guide

LOWER LIMB AMPUTATION



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Your Journey with Transcend

At Transcend Orthotics & Prosthetics, we recognize the physical and emotional challenges that come from limb loss. That's why we are determined to find the right solution and ease the transition into the new normal for your life.

Our certified clinicians are passionate about designing, fabricating and fitting prosthetic devices that allow optimal function and mobility. But true care isn't just a matter of certifications and years of experience. Care begins with compassion. We have an unrelenting drive to serve our patients in ways that go above and beyond expectations.

You deserve nothing less.

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Section 1

Prior to Amputation

INITIAL EXAMINATION

Gaining an understanding of the process prior to your amputation may help minimize feelings of uncertainty as you begin this journey. A prosthetist can offer insight on the process of recovery and healing.

It can also be beneficial to speak with another amputee about their experience. A firsthand account may give you an accurate depiction of what can be expected through surgery, healing and changes to your daily activities.

PREPARING

The amputation surgery and recovery process can cause significant change in your life. Surrounding yourself with a supportive community as you make this transition is important. Psychological counseling may help you navigate new challenges in your life. Connecting with virtual peer support and local amputee support groups can also be helpful.





FINDING THE RIGHT PROSTHETIST

Certification matters. American Board of Certification in Prosthetic and Orthotics (ABC) and Board of Certification/Accreditation (BOC) are the nationwide certification organizations for orthotists and prosthetists. Licensure rules may vary from state to state, but these certifications are recognized throughout the country. Making sure both the prosthetist and the facility are accredited may help to ease your mind about treatment. With accreditation, the company and clinicians are held to a higher standard of care. The prosthetist must have completed the proper education and training to earn their certification.

The relationship established between you and your prosthetist is long-lasting. Be mindful of your comfort level as well as your confidence in that person. It is good to seek out someone you connect with and trust. There will be multiple appointments, so location may also play a factor in your decision.

BOARD OF CERTIFICATION



Section 2

Types of Amputation

AMPUTATION

The amputation and healing are usually the longest part of the process. It does not end when the surgical site is closed and scarred over. The healing process post amputation includes the surgical site healing, as well as, healing to the tissues internally. Over the next 1-2 years, the size and shape of your residual limb will change as it continues to heal and you begin utilizing your prosthesis.

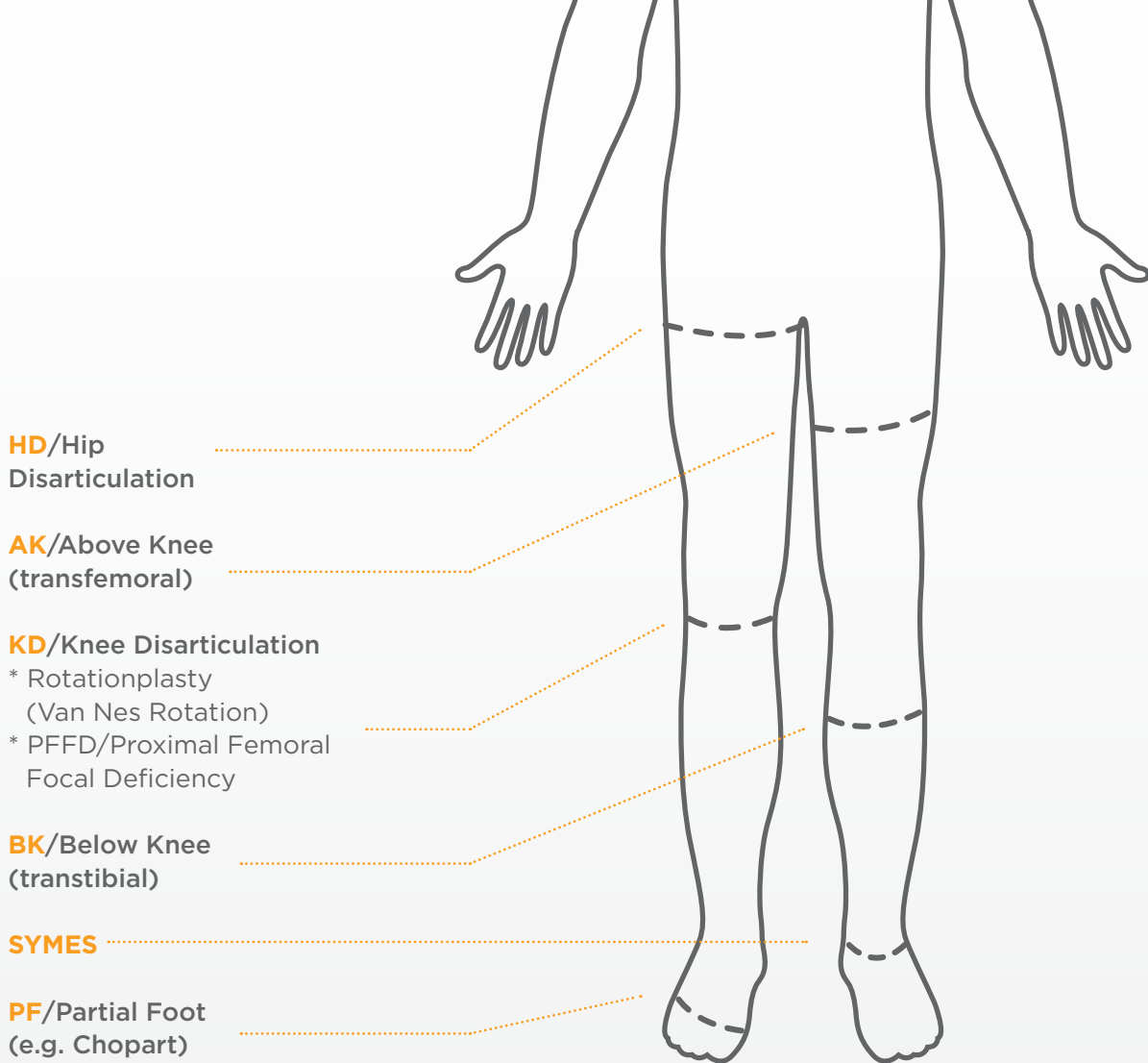
PARTIAL FOOT

There are numerous amputation levels in the foot area. They range from toe amputations to mid-foot. A prosthesis will improve function and comfort as you walk.

TRANSTIBIAL

Also referred to as 'BK' or Below the Knee, this type of surgery occurs through the tibia and fibula bones. A prosthetic socket, prosthetic foot and appropriate adapters are required.





TRANSFEMORAL/KNEE DISARTICULATION

Referred to as 'AK' or Above the Knee, this can occur through the knee joint, keeping the entire femur bone intact, or it can occur through the femur bone. A prosthetic socket, knee, foot and appropriate adapters are required.

HIP DISARTICULATION

This amputation occurs through the hip joint leaving the pelvis intact. A prosthetic socket, hip joint, knee joint, foot and appropriate adapters are required.

Amputee Coalition's Phases of Recovery

PHASE	CHARACTERISTICS	THOUGHTS AND FEELINGS
Enduring	Surviving amputation surgery or the traumatic injury and the pain that follows	Hanging on; focusing on the present to get through the pain; blocking out distress about the future- it is a conscious choice not to deal with the full meaning of the loss; self-protection.
Suffering	Questioning. "Why me?" "How will I..."	Intense feelings about the loss, fear, denial, anger, depression; vulnerable and confused; return to Enduring stage; emotional anguish about the loss of self adds to the pain.
Reckoning	Becoming aware of the new reality	Coming to terms with the extent of the loss; accepting what is left after the loss; implications of the loss for the future- how roles will change; ongoing process; minimizing one's own losses in comparison to other's losses.
Reconciling	Putting loss into perspective	Regaining control; increased awareness of one's strengths and uniqueness; more assertive; taking control of one's life; self-management of illness and recovery; changed body image; need for intimacy
Normalizing	Reordering priorities	Bringing balance to one's life; establishing and maintaining new routines; once again, doing the things that matter; allowing priorities other than the loss to dominate; advocating for oneself.
Thriving	Living life to the fullest	Being more than before; trusting self and others; confidence being a role model for others; this level of recovery is not attained by everyone.



Know Your K-Level!

K-Level: Medicare Functional Classification Levels. K-Levels are used to quantify the need for prosthetic devices for patients after lower limb amputation.

It is important to make your goals clear to your prosthetist and the entire healthcare team. Although the K-level is initiated by your physician, discussion between the physician and prosthetist can be helpful to make this determination. Accurately describing your activities prior to amputation and setting activity goals for post amputation will help to ensure best outcomes. Based on this information, most insurance companies look to K-level to decide what prosthetic components are appropriate.

After Amputation

After the surgery, the limb will be bandaged and swollen. Compression can help the healing process. Either an ACE wrap or a shrinker sock can be used to apply gradual and consistent pressure. A shrinker socket can be a much simpler alternative to ACE bandages which may be complicated to wrap properly to ensure the correct amount of pressure.



After amputation and over the next months to years, your residual limb will change in size and shape. As the post-surgical swelling goes down, the muscles that are no longer being used will reduce in size. The limb will continue to mature which will require changes or adjustments to be made to the prosthesis for proper function. If the changes in shape or size are significant, the prosthesis may need to be replaced.

COMPRESSION THERAPY/SHRINKER SOCK

A shrinker sock is a compression sock that can be applied to the limb. It can help decrease swelling and improve circulation for healing. The use of a shrinker sock may also help to control phantom limb pain and phantom limb sensations.

After the amputation, it is important to wear the shrinker sock regularly to help decrease swelling and prepare the limb for prosthetic fitting. The sock should be worn as often as possible and it can continue to be worn with the prosthesis. Follow specific wearing instructions given by your prosthetist.



RANGE OF MOTION TECHNIQUES

It is important to maintain full motion during the healing time to decrease the risk of muscle contracture. A contracture is a limit in the range of motion at a joint. This could result in complications with your prosthesis, causing pain or difficulties with function. Contractures can be avoided with physical therapy, home exercises and proper positioning to keep your limb straight.

DESENSITIZATION TECHNIQUES

Getting your limb used to being touched and increasing sensations will help to prepare it for prosthetic use. Often people will experience phantom limb pain or sensations following amputation.

Phantom limb pain is the experience of pain where your limb was amputated. This can present as cramping, burning, or crushing feelings.

Phantom limb sensations can present as numbness, tingling or itching where your limb has been amputated.

DESENSITIZATION TECHNIQUES

	Directions	Frequency
Massage	Massage your residual limb using soft, gentle kneading. Be cautious around the surgery site and avoid lotion near the scar line.	3-4 times daily for 5-10 minutes at a time.
Tapping	Gentle, light tapping with multiple fingers, especially near the end of the residual limb, being cautious of long nails and sensitivity.	3-4 times daily, 1-2 minutes of tapping at a time.
Scar Mobilization	Using 2 fingers, press firmly over the boney end of the limb and push in a circular motion over the bone. Make sure to hold your fingers in the same position on the skin. As the surgery site heals, you can continue this on the scar line.	Once daily for 3-5 minutes.
Weight Bearing Simulation	Using a cloth or towel, hold one end in each hand apply slight pressure to the end of your residual limb, holding in place for 5 seconds once you feel firm pressure but not pain, release, and repeat. Be careful not to rub the cloth along the end of your limb near the scar line/surgery site.	4-5 times per day, 2-3 minutes at a time



Fitting and Rehabilitation



EVALUATION

During an introductory appointment with your prosthetist, you will discuss your goals and the types of activities to which you will be returning in daily life. Based on this discussion, your prosthetist will determine the best componentry to fit your needs and help you achieve your goals.



INTRODUCTORY APPOINTMENT

Review health history

Get to know each other and understand functional needs for prosthesis

Check muscle strength and range of motion

Discuss prosthetic design options

Take baseline measurements



INSURANCE

After the initial evaluation is completed, our team will contact your doctor's office to obtain the documentation necessary for insurance. Insurance requirements and authorization periods for prosthetic coverage may vary depending on the company. Our team will contact the insurance company to determine coverage and provide estimated out of pocket expense.

IMPRESSION

There are many ways to get an impression of your residual limb. Your prosthetist will take measurements, a cast, a scan or a combination to capture the size and shape of your unique limb.



TEST SOCKETS

After the impression, the prosthetist will make alterations to the positive model of your limb. These adjustments will be made to apply pressure in tolerant areas and avoid areas that are sensitive.

The test socket is then made using clear plastic which allows the prosthetist to see through and make precise modifications. In order to provide optimal comfort, your feedback will be required. Discuss any areas of pain, pressure or other feelings of discomfort with your prosthetist.

In some cases, you may be asked to take some steps with the test socket. This will allow the prosthetist to ensure alignment between the prosthesis and your limb. Test sockets can be walked on safely in the office between parallel bars.





FINAL FITTING AND DELIVERY

Once there is optimal fit and alignment, the final socket will be laminated from the test socket. This is the safe and secure final product you will take home.

Your prosthesis can be designed to reflect your unique personality. Various designs and cosmetic finishes can be used to make the final product a true reflection of you.

AT THE DELIVERY APPOINTMENT

You will try on your prosthesis and your prosthetist will make final alignment/fit adjustments

.....
Review the use and care instructions

.....
Schedule a follow-up appointment



Physical Therapy and Follow-Up Care



PHYSICAL THERAPY

It is important to learn how to properly use your new prosthesis. Working with a knowledgeable physical therapist can help decrease pain when using the prosthesis and allow for better walking and more efficient use.

We recommended consulting your physician about pursuing physical therapy. You may want to look for a therapist that has experience treating amputees.



Additional exercises that may be beneficial when utilizing a new prosthesis include:

SIT TO STAND

While working with a stable chair or locked wheelchair along with a walker, practice going from a seated position to standing. This will help to begin rebuilding strength in the legs.

WEIGHT SHIFTING

While standing with a walker, work on moving all your weight over to the prosthesis and back to the sound side. This will prepare the residual limb to take weight through the prosthesis.

MARCHING

Marching in place is a great way to begin simulating the feeling of walking. This will increase strength in the legs and work on balance. For additional support, position a walker in front of you during this exercise.

FOLLOW UP CARE

Follow up appointments are a normal part of continued prosthetic treatment. It is important to continue to follow up with your prosthetist as changes may be required to improve the fit and alignment of the prosthesis. As you begin walking and using the prosthesis, your limb will change shape and your muscles will regain strength. Changes in your body will affect how the prosthesis will function. Some of those changes can be accommodated with the use of additional fitting socks. Others will require the attention of your prosthetist.

If you have any questions about the fit of your prosthesis please, contact your prosthetist immediately.



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