Therapy advice following your above knee amputation

Introduction

This booklet is given in addition to verbal advice and will help you to understand more about your amputation and the rehabilitation process.

If there is anything you do not understand, please ask any member of the surgical team (doctors, nurses, care workers, occupational therapists, and physiotherapists). They will be only too happy to answer your questions.

What is an amputation?

An amputation is the surgical removal of a limb or part of a limb.

Why do I need to have an amputation?

Usually it is because the blood supply to your limb is poor, there is infection/ulcers that won’t heal, or your limb has been severely damaged by accident or illness.

How will I feel after my amputation?

It is difficult to tell how you will feel, as different patients react in different ways. It is perfectly normal to feel a sense of loss, anger or depression initially. However, it is important to try to remain positive and give yourself time to adjust to the loss of your limb and the impact on your future. The Exeter Mobility Centre limb clinic offers a counselling service, which can be contacted on 01392 403649. They are also happy to talk to family members if they feel they would like support. The counsellor will give you the chance to discuss your thoughts, feelings and experiences in a safe and supported environment. They can help deal with issues relating to the shock of what has happened, feelings of loss, coping with pain, building confidence and coping with changes in relationships. They will help you to come to terms with what has happened and are a useful resource for you to use.
What is phantom limb sensation?

This is a normal feeling which most amputees experience. It should be a non-painful sensation/feeling that your amputated limb is still there. Most people describe this as ‘still being able to feel their toes, even though the limb has been removed’. Massaging your stump and looking at your stump as often as possible can help you adjust to losing the limb and, with time, these sensations should get less frequent.

What is phantom limb pain?

This is when phantom limb sensation starts to become painful. It does not occur in all cases of amputation. The pain could be constant or may come and go. This can disrupt your sleep and ability to manage tasks. It is usually felt in the leg that has been amputated and is a burning, stabbing or squeezing pain. If you experience this then please discuss it with the doctors, nurses or therapist as there is medication available to help.

Risk of pressure sores

Due to your surgery, you are at increased risk of developing pressure sores. Pressure sores usually appear as a red area on the skin, which can be painful and does not disappear. This is usually over bony areas such as the hips, heels, buttocks, base of spine or ankles, where there is limited fat to protect the area from damage. This is caused by pressure to an area, reducing the blood flow to the skin. If left untreated, the skin can begin to break down and sores/ulcers can develop which would require long-term treatment as they can become infected. It is therefore essential that you change your position regularly, whilst lying in bed or sitting in a chair, to stop pressure sores developing. The physiotherapist will work with you on exercises to reduce the risk of pressure sores and the occupational therapist will order you a pressure cushion to be used in your wheelchair, to help reduce the risk of pressure sores to your bottom.

How will I recover after my amputation?

You will be referred to the therapy team which consists of physiotherapist, occupational therapists and support workers, and is based on the ward. The therapy team work closely together to assist you with your recovery and help to increase your independence and confidence prior to returning home.

The physiotherapist may complete the following with you whilst you are on the ward:

**Initial contact** – The physiotherapist/team will introduce themselves to you and gain a background history of how you were managing before your admission to hospital. This will help them to understand how far you were able to walk before admission and any equipment you may have used to assist you.
Check your chest – To ensure you are able to take deep breaths and cough effectively following your operation. If you have any difficulties with your breathing, they will be able to offer you treatment to help to ease this.

Positioning of your stump – It is very important to ensure you keep your stump in the correct position to prevent pressure sores and swelling, and to prevent your stump from becoming ‘fixed’ in one position.

Balance and bed mobility – It is important for the physiotherapist to see how well you can re-position yourself in bed. Once you are able to do so, they will assist you to sit. When you are able to balance and sit yourself independently on the edge of the bed, they will help you practise moving from the bed to a chair.

Muscle strengthening – They will encourage you to complete exercises to improve the range of movement and power in your upper body and lower limbs.

Stairs/steps – If you have stairs at home, you are likely to be advised not to use them initially, due to the risk of falling and knocking your stump. However, in some circumstances, you will be taught how to negotiate one step if it is felt necessary by the team.

Floor recovery – It is quite common for amputees to have a fall when discharged home. This can be due to rushing, ‘forgetting’ that your limb has been amputated, or not positioning yourself correctly to transfer. The therapy team can teach you how to get up from the floor in the event of a fall, if they feel it is safe and appropriate to do so.

The occupational therapist (OT) can help you remain as independent as possible with all activities of daily living (ADLs) and ensure that you return home safely. This will involve all or some of the following:

Initial interview – just before or soon after your operation, the Occupational Therapist will visit you on the ward and discuss your home situation. This is to help assess your needs for discharge. They will ask you numerous questions about the layout of your home and how you were managing prior to your surgery.

Activities of daily living – once you are medically fit, you will be assessed undertaking tasks which you will need to perform at home, such as getting on and off the bed or toilet, making a cup of tea or getting washed and dressed. The occupational therapist can teach you alternative ways of managing these tasks, and techniques to make them easier.
Access visits – This is where the OT visits your home. This allows them to measure heights of furniture, check your home for wheelchair suitability and assess if changes can/need to be made to access your property. Occasionally this is carried out before your operation, but it is usually completed once you are in hospital. We are happy to meet a relative/friend at your property to do this while you are in hospital. We will always discuss the visit with you on our return to hospital and advise of changes which may need to be made, with your permission.

Equipment provision – The access visit will also help identify any minor equipment needs. For example, if you need a commode or furniture to be raised, this can be organised before your discharge.

Home assessment – this involves the OT taking you home from the hospital for about an hour, in order to practise activities and mobility within your home. It gives you a chance to identify issues before you are discharged. We ask that you return to the hospital with us following the visit, so we can put in place any recommendations which may have been identified on the visit. You will only be discharged once it is safe. If this is likely to take some time, you may be transferred to a community hospital for further rehabilitation, until it is safe for you to return home.

Discharge – the OT team will mainly look at short-term methods of getting you home from hospital. This may mean bringing a bed downstairs, or having a commode to reduce the risk of falls. They may also arrange for minor alterations to your home, such as fitting handrails.

You will also be referred to the local complex care team, comprising health and social care community therapists and nurses, for ongoing review and assessment.

Any major adaptations, such as permanent structural alterations, stair-lifts or permanent ramps, will be referred to your local social services. Patients’ assessments will vary according to individual needs. There may be a delay waiting for social service assessment, despite the referral being completed.

What adaptations might I need in the future?

Generally, major adaptations such as permanent ramps, will not be started at your home until you have had a limb-fitting. This is because people often become mobile after having a limb fitted and adaptations made to the home for wheelchairs are not ideal for those with a prosthetic limb. It is easier to negotiate a step with an artificial limb, than to go up or down a slope. An OT will visit your home and assess the access and the environment, and they will discuss this further when you are on the ward. It may be possible to have temporary ramps to assist with accessing your property. If the access is suitable, the OT will arrange for wooden ramps to be made, or you will be loaned ramps.
What support is available after discharge from hospital?

Prior to discharge you will be referred to a community therapy team. Their aim is to continue your rehabilitation in a community setting. This will either be in your own home, or your local community hospital, or both depending on which is most appropriate. Hospital transport would be available if required, until you were able to make your own way into hospital, or you no longer had a medical need to travel to hospital by ambulance.

Your rehabilitation needs will be assessed by the physiotherapist and a treatment programme will be set up. This may change as you progress through treatment. Physiotherapy will include different exercises to improve muscle strength and walking practice using walking aids and the prosthesis. Exercises and physiotherapy will take place in a rehabilitation room. You will work towards rehabilitation goals that you and your physiotherapist have discussed. We will endeavour for you to be seen by the same physiotherapist each week and are happy for you to bring a family member with you.

Where are the community therapy teams located?

There are five community therapy teams in North Devon, each serving a series of GP surgeries in:

- Torrington and Holsworthy
- Bideford and Northam
- Braunton, Ilfracombe and Lynton
- South Molton and Chumleigh
- Barnstaple.

Who works in a community therapy team?

The team comprises of specialists from different agencies who all work closely together. These staff include community matrons, community nurses, occupational therapists, physiotherapists, support workers, social workers and general practitioners (GP's) to name but a few. All of these staff work closely with your own GP, departments at North Devon District Hospital or community hospitals, and with the Exeter Mobility Centre, who assess and fit you with your prosthetic limb, to ensure that your needs are met/assessed appropriately.

You will have access to your community therapy team until your rehabilitation is complete.
How should I look after my stump?

It is important to wash and dry your stump regularly to ensure that it does not become infected. You must check your stump daily to look for signs of any changes in colour, skin texture, sore areas or pain. Some people find a mirror beneficial for viewing underneath their stump. Clean stump socks should be worn daily. Try to avoid bumping your stump as this can cause swelling or the wound to re-open.

How should I look after my remaining leg?

It is very important to look after your remaining leg, as this should help you to transfer and walk again in the future. You should ensure that the toenails on your remaining leg are regularly cut and that your foot is cleaned regularly to avoid infections. You should try to avoid wearing tight socks or shoes as these can cause marking/pressure sores. Where possible, you should try to avoid exposing your leg to excessive heat. Check your leg regularly for signs of skin breaking down, painful areas/sores, or any changes to the normal skin texture or colour.

Will I receive a wheelchair?

All amputees with a Devon GP are issued a wheelchair from the Exeter Mobility Centre, which is part of the Royal Devon & Exeter Hospital. You will initially be supplied either a self-propelling chair, which you can move yourself with large wheels, or an attendant wheelchair, which requires someone else to push the chair for you. Further assessment may occur at a later date, but this will be the wheelchair you use to go home.

The occupational therapists will assess which type of chair is appropriate for you. Within North Devon District Hospital, there is a small stock of standard-sized wheelchairs for patients. However, due to your height or weight, we may sometimes have to order a special-sized chair, which will take a few weeks to be delivered to you. In the meantime, it may be possible to loan one. There are several loan/hire companies in North Devon and advice can be given to you by the OT.

The therapy team will practise using your wheelchair with you, to increase your confidence and independence. If adjustments or accessories are required for the chair, these will be arranged for you. Your wheelchair will have a support to rest your stump in front of you. It is important for wound healing that you use this and avoid sitting with your stump hanging down towards the floor. This will help to reduce swelling in the stump and maintain a good position.

Please be aware that in most cases, patients are unable to return home until a suitable wheelchair has been provided.

Patients living in Cornwall or other counties will have a chair loaned from their local equipment provider. This will be arranged by the therapy team before your discharge.
Will I be able to walk with crutches when discharged home?

After your lower limb amputation, you will be unable to attempt to walk on crutches or a frame before you have an artificial limb fitted. This is because hopping can cause swelling to your stump, which may delay your limb-fitting. You are also at increased risk of falling and damaging your remaining leg. Instead you will be issued with an appropriate wheelchair to facilitate discharge (see above).

During your rehabilitation sessions your potential mobility will be assessed by the therapists. This may include mobilising with walking aids prior to limb fitting.

Will I be given an artificial limb?

After amputation, all patients will be referred to Exeter Mobility Centre for an assessment for an artificial or cosmetic limb. The centre currently holds a satellite clinic at South Molton Hospital every other Wednesday.

At this appointment the team will take your medical history, find out about your lifestyle and hobbies and give you information about prosthetic limbs and the rehabilitation process, so you can make an informed decision whether an artificial limb is right choice for you.

When your wound is healed sufficiently, you will need to be measured for a Juzo shrinker. This is a type of compression stocking that will help to reduce the swelling in your residual limb and help to shape it for the limb-fitting process. The Juzo needs to be worn during the day (NOT at night) for approximately two weeks before measurements can be taken.

The prosthetists will take initial measurements or a plaster cast of the residual limb to start to make the prosthetic limb. When completed, the artificial limb will be delivered to your physiotherapist.

What exercises should I do after my amputation?

This exercise section has been produced by P.I.R.P.A.G. (Physiotherapy Inter Regional Prosthetic Audit Group)

Physiotherapy exercises following transfemoral (above knee) amputation

Introduction

These exercises have been designed to help you remember the exercises that you have been taught by your physiotherapist.

All of the exercises should be done slowly and smoothly. If you feel any pain, stop and tell your physiotherapist or doctor.
Exercise helps to keep your strength and mobility as well as improve your blood flow.

These exercises will help to keep you independent either in a wheelchair or using an artificial leg (prosthesis). Try to keep doing these exercises, even after you have been discharged from treatment.

1. **Static gluteal contractions**
   - Lie on your back
   - Keep both legs straight and close together
   - Squeeze your buttocks as tightly as possible
   - Hold for five seconds
   - Repeat _____ times

2. **Hip flexor stretch**
   - Lie on your back, preferably without a pillow
   - Bring your thigh towards your chest and hold with your hands
   - Push your opposite leg down flat on to the bed
   - Hold for 30 – 60 seconds, then relax
   - Repeat _____ times
   - Repeat the above with the other leg.

3. **Hip hitching**
   - Lie on your back
   - Keep both legs flat on the bed
   - Hitch one hip up towards you on one side and push away on the other (shortening one side and stretching the other. Hold for three seconds
   - Repeat _____ times
   - Repeat on the other side.
4. **Bridging**

- Lie on your back with your arms at the side
- Place a couple of firm pillows or rolled up blankets under your thighs
- Pull in your stomach, tighten your buttocks and lift your bottom up off the bed, Hold for five seconds
- Repeat _____ times.

To make this exercise more difficult, place your arms across your chest as shown in the picture.

5. **Hip flexion and extension in side lying**

- Lie on your side
- Bend the bottom leg
- Lift your top leg slightly
- Bend your thigh fully towards your chest
- Push your leg backwards as far as you can
- Repeat _____ times.

**NB** Try not to let your hips roll forwards or backwards.

Repeat the above with the other leg.

6. **Hip abduction in side lying**

- Lie on your side
- Bend the bottom leg
- Keep hips and top leg in line with your body slowly lift your top leg up and slowly lower
- Repeat _____ times.
NB Try not to let your hips roll forwards or backwards.

Repeat the above with the other leg.

7. **Hip extension in prone lying**
   - Lie flat on your stomach
   - Lift your leg off the bed as far as you can
   - Be sure to keep hips flat on the bed and do not roll your body
   - Hold for five seconds. Slowly lower
   - Repeat _____ times.

Repeat the above with the other leg.

8. **Hip adduction with resistance**
   - Sit with both legs out in front of you
   - Place a pillow or rolled up towel between your thighs
   - Squeeze your legs together
   - Hold for five seconds
   - Repeat _____ times.

NB This exercise can also be performed when sitting in a wheelchair or at the edge of a bed.

**Can I drive after an amputation?**

You are usually able to drive following an amputation. However, you may have difficulty driving a standard car. There are numerous devices available to assist you, such as hand controls and adjustments to pedals. It is advisable to drive a car with automatic transmission rather than a manual car. Depending on the level of your amputation, you may need the pedals adapted to hand controls to make driving safer. There are companies based in South Molton and Cornwall that can advise on adaptations to cars or assess you using an adapted car. You need to inform the DVLA and your insurance company if you have had an amputation. Please discuss this with the therapy team if you would like further information.
Can I return to work after an amputation?

It is important for you to discuss this with your employer directly. The Job Centre has a disability advisor who can assist with return-to-work programmes and advise about any alterations or equipment you may require at work.

Whom do I contact if I require additional support at home?

Please discuss with your therapy team if you would like further information on any of the following:

- Care Direct (social services) on 0845 1551 007. They will provide advice on benefit entitlement, care packages or minor adaptations to your property at home.

- Citizens Advice Bureau – Able to provide all sorts of advice on benefits/pensions/housing issues.

- Volunteer Bureau – There are volunteer agencies based across North Devon who will assist with shopping, gardening, odd jobs and befriending schemes.

- Home from Hospital schemes – run by Red Cross volunteers who will visit you at home after you have returned home. They provide support and companionship and can assist with shopping.

- Age Concern – can assist with shopping, support at home following discharge from hospital, advice on benefits/housing and support groups.

How do I return equipment which has been loaned to me?

If the therapy team has provided you with any equipment which you no longer require, depending on the equipment issued, you may be able to return it to the nearest occupational therapy/physiotherapy department at your local hospital, and they will return it for you. If you no longer require your wheelchair, please contact Exeter Mobility Centre on 0845 762 6883. However, it is beneficial to remember that even when you have been given an artificial limb, you may have days where you feel too tired to walk and will use your wheelchair. Your limb may need to be adjusted, or you could have breakdown of your stump and be unable to wear the limb. Do not be too hasty to return your wheelchair.
What do I do with equipment which was prescribed to me?

If the therapy team issued you with a prescription for any equipment, then this equipment belongs to you. There is no set loan period and it is yours to do with as you wish when you no longer require it.

References

The physiotherapy exercise sheet has been produced by representatives of P.I.R.P.A.G. (Physiotherapy Inter Regional Prosthetic Audit Group). We would like to thank them for their contribution towards our patient information leaflet.

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