

#### References

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If you require a full list of references for this leaflet please email patient.information@ulh.nhs.uk

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# Bilateral Amputee Information, Exercises and Transfer Technique

Physiotherapy Departments

www.ulh.nhs.uk

#### Patient's Name: .....

#### Aim of the leaflet

It is very important that you are actively involved in your rehabilitation.

The following are advice and exercises to aid your recovery.

The exercises must be done daily to help improve your muscle strength, maintain your range of movement, reduce swelling and prevent complications such as contractures (deformity limiting movement).

You can ensure this by -

- Changing the position in which you are sitting and therefore the position of your hip and knee.
- ◆ Try not to sit in a chair for long periods with your knee bent. Either use the stump board provided or a stool for support of your stump, ideally without a pillow.
- Do not put a pillow underneath your amputated leg when lying down. Equally, do not put a pillow underneath your hips, knees or between your thighs (unless instructed to do so).
- Do not hang your amputated leg over the side of the bed.

#### Other useful contacts

#### **Nottingham Disability Services Centre**

Amputee Liaison Nurses
Nottingham City Hospital
Hucknall Road
Nottingham
NG5 1PB
0115 969 1169 ext 57539 (nurse station)
0115 969 1169 ext 55688/56544 (appointments)

#### **Wheelchair Services for Lincolnshire (including repairs)**

Millbrook Healthcare Somer House Great Northern Terrace Lincoln LN5 8HJ

Telephone: 03332 400 101 (calls charged at local rate)

#### **Amputee associations**

## British Limbless Ex-Service Men's Association (BLESMA) www.blesma.org - Frankland Moore House, 185-187 High Rd.

Chadwell Heath, Romford, Essex RM6 6NA - Tel 020 8590 1124

#### **The Limbless Association**

www.limbless-association.org

The Limbless Association, Unit 16 Waterhouse Business Centre, 2 Cromar Way, Chelmsford, Essex, CM1 2QE.

Help Line: 0800 644 0185 enquiries@limbless-association.org

#### The Disabled Living Foundation

www.dlf.org.uk 380-384 Harrow Road, London, W9 2HU - Tel 020 7286 6111

#### **Amputee Social Group**

'Life after amputation' Facebook group

#### Who to contact if you have a problem

If you have a problem with your wound and/or have any pain or infection please contact your GP or District Nurse.

If you have a problem with your prosthesis please contact the Nottingham Disability Service Centre (details on page 23).

## Physiotherapy contact details

If you have any questions relating to your physiotherapy please contact:

#### **Physiotherapy Departments**

Lincoln	01522 573945
Grantham	01476 464253
Boston	01205 445359
Louth	01507 600100 ext 1234
Skegness	01754 613516

Following a **below knee amputation** it is important to prevent the hip and knee from staying in a bent position.



Following an **above knee amputation** it is important to prevent the hip from staying in a bent, or poor position.





#### Instructions for exercises

- It is recommended that you try and perform these exercises 2-3 times per day. For every exercise repeat 5 times to start with, progressing to 10 times with the guidance of your therapist.
- The exercise sheet contains a small description of the exercise and a picture for you to follow. Do not bounce back and forth when performing stretches.
- If you have any questions relating to the exercises or if you are unsure about the correct way to perform them, ask your therapist, who will explain.
- It is possible to 'overdo' your exercises. If you suffer any additional pain or feel short of breath, please let your therapist know, who will then advise you on progression.

## PERFORM EACH EXERCISE THAT IS TICKED IN BLOCKS OF 5 REPETITIONS 3 TIMES PER DAY.



Your physiotherapy contact is......

Wash the sock in mild detergent (do not use fabric softener) and rinse well. If the sock is washed in the evening it should be possible to dry it overnight **near** a radiator or hot pipe. The sock **CANNOT** be tumble dried.

If you experience any problems please contact your physiotherapist or ring the Nottingham Disability Centre and speak with the nurses there.

#### **Phantom Limb Pain/Sensation**

It is common for patient's to report experiencing phantom limb pain and/or sensations. These may range from mild to severe with symptoms lasting just a few seconds to constant pain.

Phantom limb and residual limb pain are likely to improve over time post amputation. If the symptoms become an ongoing issue and/or become unmanageable please contact your GP, the Nottingham Disability Centre or your physiotherapist.

While the cause of phantom limb pain has not been proven, there are many theories and multiple treatment approaches, so please highlight any concerns for the correct management.

#### **Compression socks (Juzo)**

To enable the swelling to go down after the amputation and to improve the shape of the limb you will be issued with a compression sock if your amputation is below the knee.

Wear your sock during the day initially and build up the time until you are wearing it 24 hours a day (unless it is in the wash). If we are unable to put the firm compression sock on we will try and use a lighter compression to get you used to the feel of something being around the operation site. As your limb begins to shrink you may need a smaller sock to continue the shaping and reducing the swelling.

When wearing the compression sock please follow the instructions below.

Ensure that the juzo is pulled up well with no wrinkles. Do not wear the sock with your artificial leg.

Remove the sock if pins and needles and/or pain occur, but replace after one hour and try again.

If you are unable to tolerate the sock because of either of the above, do not wear the sock until you are next seen by your physiotherapist or have contacted the amputee nurses in Nottingham.

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## **Static Quadriceps**

- Push your legs straight out in front of you
- Push the back of your knee into the bed and tighten the thigh muscles
- Hold for 5 seconds
- Repeat this \_\_\_\_ times



## **Straight Leg Raise**

- Put your legs out in front of you
- Tighten your thigh
- Lift your leg off the bed
- Hold for \_\_\_\_ seconds
- Slowly lower
- Repeat \_\_\_ times
- Repeat with the other leg





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## **Inner Range Quads**

- Sit with both legs straight out in front of you
- Place a rolled up towel, blanket or pillow under your knee
- Straighten your knee
- Hold for 5 seconds
- Repeat \_\_\_ times
- Repeat the above with the other leg





# Hip Adduction With Resistance

- Sit with both legs out in front of you
- Place a pillow or rolled up towel between your knees
- Squeeze your knees together
- Hold for 5 seconds
- Repeat \_\_\_\_ times



#### Taking care of your amputated limb

Begin to touch your amputated limb as soon as possible. Gentle massage encourages the blood supply to help the wound heal and can help reduce phantom sensations.

Wash your limb daily using warm water and a mild unperfumed soap - do not get your dressing wet in the early stages.

Dry your limb thoroughly using a soft clean towel. Dab dry, do not rub.

To keep the skin of the limb supple and healthy apply a moisturiser such as E45 or aqueous cream. Massage into the scar line once it is healed to stop the skin becoming attached to the underlying bone.

Check your limb daily, especially before and after putting on your compression sock or prosthesis. Look for sore, blistered or broken areas.

Do not treat any broken areas yourself. Contact your GP, Practice Nurse or District Nurse for an urgent review to ensure the correct treatment is given.

#### What happens next?

Not everyone wants, or is suitable for a prosthesis and this should have been discussed with you while you are in hospital.

Once you are discharged from hospital you should be referred to your local physiotherapy department if you are going to become a limb wearer and given their contact details and a name to ensure that your treatment is continued.

Once you have been assessed and started further rehabilitation, you will then be reviewed by the Prosthetic service based in Nottingham. Your appointments for this will come directly from them. All patients from Lincolnshire will have their prosthetics dealt with in Nottingham but the majority will have their physiotherapy outpatient sessions near home.

It may be possible to talk with someone who has already been through losing a limb and if you would like to meet up and talk please ask your physiotherapist to see if it could be arranged. We are not always able to do this but it is worth asking!

## **Outer Range Quadriceps**

- Sit on a chair or edge of the bed
- Straighten one knee
- Hold for 5 seconds
- Now bend your knee
- Repeat \_\_\_\_ times
- Repeat the above with the other leg





# Static Gluteal Contractions (Bottom clenching)

- Lie on your back
- Keep both legs straight and close together
- Squeeze your buttocks as tightly as possible
- Hold for 5 seconds
- Repeat \_\_\_\_ times



## **Hip Flexor Stretch**

- Lie on your back, preferably without a pillow
- Bend your knee 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



## **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 5 seconds
- Repeat \_\_\_\_ times

To make this exercise more difficult, place your arms across your chest







## **Transfer Techniques**

#### Forward/Backward Transfer

#### **Backward Transfer**

- 1. Position the wheelchair facing the bed with little or no gap and brakes securely on.
- 2. Sit on the edge of the bed with your back towards the locked wheelchair.
- 3. Reach backwards for the armrests and use your arms to support your weight and lift yourself up and back into the wheelchair.
- 4. Unlock the brakes and wheel away from the bed to place stump boards in situ if required.

#### **Forward Transfer**

- 1. Position your wheelchair to the side of your bed and remove any stump boards to ensure there are no gaps, then lock your brakes.
- 2. Position your hands and arms on the arm rest to support your body weight and then walk your legs forward by shifting your body weight from side to side. Continue until you are completely on the bed.

## **Hip Flexion and Extension in Side Lying**

- Lie on your side
- Bend the bottom leg
- Lift your top leg slightly
- Bring your leg fully towards your chest
- Straighten your leg and push it backwards
- Repeat \_\_\_\_ times

NB Try not to let your hips roll forwards or backwards. Position your arms comfortably

Repeat the above with the other leg









## **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, keeping your knee straight
- Slowly lower
- Repeat \_\_\_\_ times

NB Try not to let your hips roll forwards or backwards

Position your arms comfortably

Repeat the above with the other leg









The same technique can be used for multiple transfers including toilet transfers, car transfers, wheelchair transfers etc.

These techniques will be practised with you by the therapy team.

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## **Transfer Techniques**

## **Banana Board/Butterfly Board**

- 1. Position your wheelchair parallel to the transfer surface and remove the arm rest closest to the transfer surface.
- 2. Place one side of the transfer board underneath your buttock and upper thigh. Please ensure the other side of the transfer board is on the chair or flat surface you are transferring onto.
- 3. Move yourself along the board using your arms to push up and lift your buttocks along the board. Ensure your hand is flat on the board to avoid trapping your fingers.

If you are using a butterfly board, the slide sheet will facilitate your transfer.

4. Once safely on the surface you are transferring onto, shift your weight to remove the board out from under your buttock/thigh.

N.B Ensure you have completed the transfer and are sitting safely on the bed before lying down.

## **Knee Flexion in Prone Lying**

- Lie on your stomach
- Place your arms in a comfortable position
- Keeping your thigh on the bed, bend your knee as far as possible
- Hold for 5 seconds
- Straighten your knee
- Repeat \_\_\_ times
- Repeat the above with the other leg



## **Hip Hitching**

- Lie on your back
- Keep both residual limbs 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 side)
- Hold for 3 seconds
- Repeat \_\_\_ times
- Repeat on the other side



### **General transfer tips:**

- 1. Always check your brakes are on prior to any transfer
- 2. Ensure the wheelchair is closer to the head of the bed as this makes positioning in bed easier
- 3. Move any items that may cause an obstruction prior to transferring, i.e. blankets, clothes, books
- 4. Try to plan so that transfers are from one surface to another surface of similar height
- 5. When transferring, use your body weight by leaning forward to aid your movement
- 6. Use anti-tippers on your wheelchair

