Physiotherapy exercises following transtibial (below knee) amputation

Introduction

This sheet has 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 Quadriceps**
   - Push your legs straight out in front of you.
   - Push the back of your knees into the bed and tighten the thigh muscles.
   - Hold for five seconds.
   - Repeat this ___ times.

2. **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 the above with the other leg.
3. 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 five seconds.
- Repeat ___ times.

Repeat the above with the other leg.

4. 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 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.
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5. Outer Range Quadriceps
   - Sit on a chair or edge of the bed. Place your hands on your lap.
   - Straighten one knee.
   - Hold for five seconds.
   - Now bend your knee.
   - Repeat ___ times.

Repeat the above with the other leg.

6. 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.
7. **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 to 60 seconds, then relax.
   - Repeat ___ times.

Repeat the above with the other leg.

8. **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.

9. **Hip Flexion and Extension in Side Lying**
   - Lie on your side.
   - Bend the bottom leg.
   - Lift your top leg slightly.
   - Bend your knee fully towards your chest.
   - Straighten your knee and push your leg backwards.
   - Repeat ___ times.

NB: Try not to let your hips roll forwards or backwards.
Repeat the above with the other leg.

10. **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.

Repeat the above with the other leg.

11. **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 five seconds.
   - Straighten your knee.
   - Repeat ___ times.

Repeat the above with the other leg.
Patient Information

Sources of information
This exercise sheet has been produced by representatives of the Physiotherapy Inter Regional Prosthetic Audit Group (PIRPAG).

Important information
Please remember that this leaflet is intended as general information only. It is not definitive. We aim to make the information as up to date and accurate as possible, but please be warned that it is always subject to change. Please, therefore, always check specific advice on the procedure or any concerns you may have with your physiotherapist.

Hand hygiene
In the interests of our patients the trust is committed to maintaining a clean, safe environment. Hand hygiene is a very important factor in controlling infection. Alcohol gel is widely available throughout our hospitals at the patient bedside for staff to use and also at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats
This information is available in alternative formats such as large print or electronically on request. Interpreters can also be booked. Please contact the Patient Advice and Liaison Service (PALS) offices, found in the main reception areas:

Conquest Hospital
Email: palsh@esht.nhs.uk - Telephone: 01424 758090

Eastbourne District General Hospital
Email: palse@esht.nhs.uk - Telephone: 01323 435886

After reading this information are there any questions you would like to ask? Please list below and ask your physiotherapist.

Reference
The following clinicians have been consulted and agreed this patient information:
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