Addenbrooke’s Hospital Physiotherapy
Patient Information

Pre-operative advice and exercises

This leaflet is for patients who are due to have an operation and gives advice on pre-op exercises.
In preparation for surgery it is important to try and optimise your activity levels. It may seem a little daunting taking on a new exercise regime, but even adapting daily activities can help increase your fitness levels in preparation for your surgery. For example, park a little further away when visiting the supermarket so that you have to walk a little more.

**Smoking**

If you smoke it is important that you try to stop as soon as possible before your surgery. Smoking may lead to breathing difficulties following surgery and will slow down the healing process of any wounds.

**Exercises**

The following pages show exercises that you can practice before your operation. Start by completing the stated repetitions of each exercise. As you get stronger, increase the repetitions until you can manage 20 of each exercise. Aim to do some exercise or walking every hour of the day that you are awake.

**Breathing and upper limb exercises**

These will help you recover from the anaesthetic and make you more alert. If you have chest problems such as asthma or bronchitis, it is even more important for you to do these exercises to reduce the risk of a chest infection. Some surgery can make it harder to take deep breaths. Taking deep breaths is important as it can help your body to heal and also prevent chest infections.
1. Sit on a firm chair.
   Sit up tall.
   Lift one arm as high as you can comfortably,
   Lower the arm and raise the other arm.
   Alternate the arm lifts.
   Start with 5 repetitions.

2. Sit or stand,
   Stretch out your spine.
   Lift both arms together.
   Stretch as far as you can comfortably.
   Start with 5 repetitions.

   Sit upright in a chair,
   Turn to look over your left shoulder, then turn to look over your right shoulder.
   Start with 3 repetitions.
3

Sit upright on a firm chair.
Relax your shoulders and look straight ahead.
Gently turn your head to look to the right.
Then gently turn your head to look to the left. Repeat 3 times slowly.

4

Sit near the front of a firm chair.
Relax your shoulders. Sit tall,
Rest your hands on your knees.
Take a deep breath in through your nose.
Hold the breath for a count of 5.
Allow the air to flow freely out through your mouth.
Repeat this three times each hour that you are awake. **Do not** do more than 3 deep breaths at any one time.
Following an operation on your **abdomen or chest**, you will need to work hard to maintain clear airways.

Practise the following positions before your operation.

Sit propped up in bed. Place a pillow under your knees so that they bend a little. Place a pillow over the operated area, and hold this in place with your hands. Keep your shoulders relaxed. Take a slow deep breath in through the nose and out through your mouth. Repeat this three times.

Deep breathing may cause you to cough. This is a good thing, but may be painful.

To reduce any pain press gently but firmly on the pillows over the area of the operation as you cough, this will support your wound.

To help to relieve pain during a ‘huff’ or cough, when sitting in a chair. Hold a pillow firmly over the painful area, lean forward, hug your tummy and either ‘huff’ the air out or cough.

In addition to the breathing exercises, remember you will naturally breathe more deeply and easily if you are moving around. Do not sit or lie still during the day. Aim to stand and walk as much as possible every hour of the day.
Circulation exercises

It is important to keep your circulation moving. Vigorous, rhythmic pumping of the muscles in the lower leg will help you to do this.

Lying or sitting with your back supported, bend and straighten your ankles briskly.

Whilst lying or sitting with your back supported, now circle your ankles in each direction.

Lie on your bed, in a comfortable position. Tighten your thigh muscles by pushing your knee down on to the bed and pulling your toes up towards you, keeping your knee straight. Hold for 5 seconds then repeat.
Lying or sitting in a comfortable position. Squeeze your buttock muscles tightly together. Hold for 5 seconds relax and then repeat.

Lie in a comfortable position. Bend your knee up towards you, keeping your heel close to the bed. Lower slowly. X10

**Exercises to help you increase strength, flexibility and balance**

Whilst lying in a comfortable position keep your knee straight and slide your leg towards the edge of the bed and back again. Do not roll your leg outwards; your toes should always point to the ceiling.
Whilst sitting on a chair with your thigh fully supported. Tighten your thigh muscle and raise your foot until the leg is fully straight. Lower slowly.

Standing in an upright position with your upper body still; hold onto something fixed for balance. Move one leg sideways away from your body and then back to the centre. Move in a controlled manner keeping your kneecap facing forwards. Repeat with the other leg

Standing in the same position as for the previous exercise. Move one leg forwards and upwards bending at both the hip and the knee. Repeat with the other leg

Standing in the same position as the previous two exercises. Keeping your knee straight move your leg directly backwards as far as comfortably possible and then back to the starting position. Keep your upper body still throughout. Repeat with the other leg.
Sit near to the edge of a firm chair. Try to stand up with your hands on your hips. If this is too difficult use the arms of the chair to assist you. Repeat 3 times, add one repetition each day until you can manage 10 sit to stand exercises.

**Stairs**

It is good exercise to walk up and down the stairs, always hold the hand rail.

If you are concerned about managing the stairs after your operation, arrange to have a bed downstairs before you come into hospital. It is possible to borrow a commode if there are no toilet facilities downstairs.

**After your operation**

**Pain relief**

To help with your treatment, it is important that you have adequate pain relief. If you are suffering high levels of pain, before admission or following discharge from hospital, please seek advice from your GP. During your hospital stay discuss your levels of pain with your ward nurse and doctor.

It is important to get out of bed even just sitting up in a chair as soon as possible within 24 hours of your surgery. This helps your lungs to work best, improves circulation and aids digestion.
The first time you do this it is best to have a physiotherapist or nurse with you to help with any lines you are attached to and give you any assistance you might need, as you may feel weaker than usual.

Once you have got up, it is essential to start moving around to prevent your muscles getting weak, which happens quickly if you stop using them. If initially you do feel weak, build up the amount of exercise you do gradually, a little and often is the key, your physiotherapist will help guide you with this. The exercises on this sheet that you have been practising before your operation are ideal to recommence straight after your operation.

**Coughing**

If you need to cough or huff after your operation and your incision is over your chest or stomach area you may find it more comfortable to support around your wound with a pillow or rolled up towel.

**Sleeping**

Try to lie flat in bed. However, if you have a chest condition you may require several pillows to allow good chest expansion. Do not slump in bed.

**Driving**

Driving can be affected by pain relief and physical ability post operation. It is your responsibility to make sure that you are fit and safe to drive and control your car or buggy in an emergency.

You should check with your insurance company to make sure that you are insured to drive following an operation.
You should also inform the DVLA of any changes in your ability.

**Walking and stairs**

As you become steadier on your feet you can slowly increase the distance you walk. The golden rule for walking up or down stairs is one step at a time. Always hold the hand rail.

As you progress you may try general household activities. However, try to avoid prolonged standing. If you wish to resume a particular hobby please discuss this with your Surgeon or Physiotherapist.

**Walking aids**

If you currently use walking aids, you may bring them with you. Please make sure that they are clearly labelled with your name and address. Alternatively we will supply any aids you need and you will be able to take them home with you on discharge.

**Your progress**

Everybody recovers at differing speeds and this will depend upon your age, your general health and the nature of your surgery. It is important to understand that your recovery in hospital needs your help as much as that of the hospital staff.

Early exercise and mobility are key to a successful and hopefully short hospital stay. Practice your exercises 4 times a day.

**Benefits of exercise**

- Improved exercise ability
- Improved energy levels
• Improved control of breathing
• Reduced breathlessness
• Reduced leg tiredness
• Reduced number of infections
• Reduced number of days in hospital
• Reduced feeling of depression
• Increased ability to complete activities of daily living
• Faster return to work.

Exercise regimes

• Do the exercises you have been, and will be taught
• Do increase your walking distance gently.
• Do make sure you have somewhere to rest if you get tired when walking.
• Do watch your weight

If required a referral will be made to your local physiotherapy service on discharge. They will progress your exercises in the appropriate time frame.

Contacts

If you have any concerns following discharge from hospital, the in-patient physiotherapy team can be contacted on 01223 216104.

References


Smoking and Surgery:
Information
Please be aware that this handout is to be used as a guide. If you find these exercises painful please seek advice from your physiotherapist or Doctor.

This information has been compiled by the Physiotherapy team at Addenbrooke’s Hospital. You may receive this information during an appointment with a physiotherapist, from your clinic or ward, or via our website at www.cuh.org.uk/addenbrookes/services/clinical/physiotherapy

Help with this leaflet:

If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or patient.info@addenbrookes.nhs.uk

We are currently working towards a smoke free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169

Document history
Authors
Cambridge University Hospitals NHS Foundation Trust, Hills Road, Cambridge, CB2 0QQ
www.cuh.org.uk

Contact number
01223 216104

Publish/Review date
October 2015/October 2018

File name
Pre_operative_advice_and_exercises.doc

Version number/Ref
1/PIN3787