



**Royal Free London**  
NHS Foundation Trust

# **Enhanced recovery after surgery (ERAS) for liver surgery**

**Exercise and nutrition  
guidelines  
Information for patients**

The aim of this booklet is to provide you with guidelines on exercise and nutrition to help you recover from your liver operation as quickly as possible.

It also aims to encourage you to eat and drink normally as quickly as possible. Good nutrition and regular exercise are the key to aid your recovery. Each day you can track your goals and keep daily reflections of your progress. If you have any problems or further questions, please speak to your ward physiotherapist, dietitian or ERAS clinical nurse specialist.

### **What is enhanced recovery after surgery (ERAS)?**

ERAS is an evidence-based approach that helps people recover more quickly after major surgery, while aiming to improve their experience and wellbeing.

Having an operation can be both physically and emotionally stressful. ERAS programmes try to get you back to full health as quickly as possible. In order to achieve this, we will guide and help you to take an active part in your recovery after surgery. As you may be aware, staying longer than you need to in hospital can increase the risk of post operation complications. Being on the ERAS pathway decreases complications and reduces the amount of time you need to stay in hospital.

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## **Exercises and nutrition: The day of your operation (day 0)**

### **My goals:**

- To complete breathing exercises
- To complete bed exercises as per page 5
- To sit on the edge of the bed within 6-12 hours
- To drink plenty of fluids
- To start eating normal meals from the hospital menu

### **Breathing exercises**

To help prevent the build of phlegm (mucous) and keep your chest clear following surgery, it is essential that you do regular deep breathing exercises and practise coughing every day, starting as soon as you can after your operation.

- To get the most benefit from doing these exercises it is important to make sure that your pain is well controlled.
- If you are on pain medication, the best time to do the exercises is approximately 20 minutes after taking the medication.
- If you are not taking any pain relief and are experiencing pain when doing these exercises, please speak to a member of ward staff.

### **Deep breathing**

Sit in an upright position either in the bed or in a chair and try to ensure your neck and shoulders are as relaxed as possible. Take a long slow deep breath in – you should aim to fill up the base of your lungs so that the bottom of your rib cage moves out to the side as your breath in. Then breath out. Repeat this 4 or 5 times every hour or as prescribed by your physiotherapist.

## Coughing

Immediately after doing your breathing exercises you should cough as strongly as you feel able to. If necessary, support your wound site by gently pressing your hands, pillow or a folded towel over the area.

If the cough is strong and dry, rest and repeat the breathing exercises every hour or as prescribed.

If you do produce any phlegm, repeat the deep breathing exercises, cough one to two more times and then rest, repeating the exercises every hour or as prescribed.

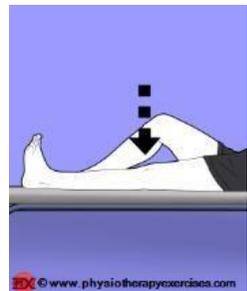
If you produce any phlegm when you cough, spit it out if you can (if you have to swallow it, this is also ok).

## Bed exercises

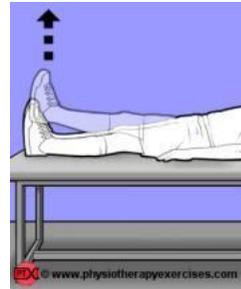
1. Position yourself lying on your back. Start with your toes pointing down. Finish with your toes pointing up. Repeat 20 times.



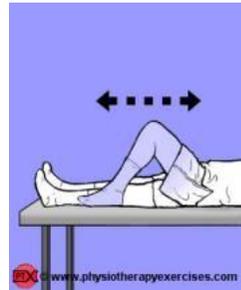
2. Lie down on your back with your legs straight. Pull your toes up towards you and tighten the muscles at the front of your thigh by pressing the back of your knee into the bed. Repeat 10 times on each leg.



3. Lie down on your back with your legs straight. Start with your leg straight and your heel on the bed. Keeping your leg straight, raise it, and then lower it back down. Repeat 10 times on each leg.



4. Lie down on your back. Start with your leg straight. Bend your knee, bringing your heel along the bed towards your bottom as far as possible and back down again. Repeat 10 times on each leg.

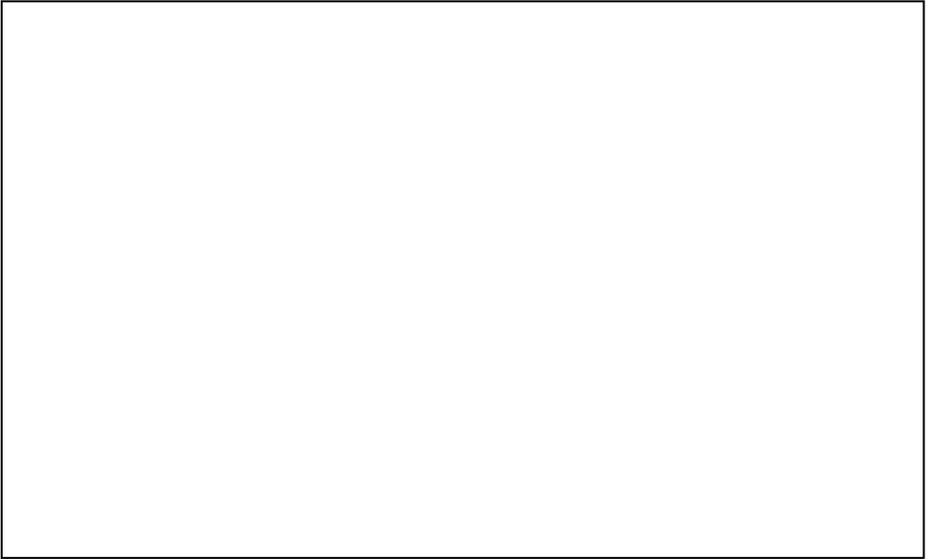


## Nutrition

You can drink any fluid freely on day 0. This includes water, tea, coffee, any milky drinks and fruit juices. Aim for at least five cups a day. If you are prescribed Ensure® drinks, try to have at least two bottles a day.

You can also eat normally. There is nothing you should not eat, including puddings. Please choose from the hospital menu provided. Alternatively, you can bring in your own food from home or family can bring in food for you.

## Notes



# Exercises and nutrition: Day 1

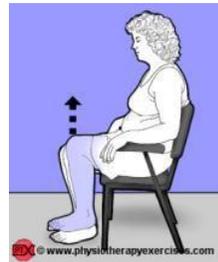
## My goals:

- To continue breathing exercises as per day 0
- To sit out of bed for all meals
- To mobilise up to 60m on the ward
- To drink freely, aiming to have at least 5 cups a day
- To eat normally from the hospital menu, aiming to finish at least ½ of each meal and pudding

## Day 1 exercises

These exercises should be done sitting in a chair and repeated as often as you can through the day. You can start these exercises as soon as you are able. Make sure you are well supported in the chair and that the chair is pushed back against the wall so that it cannot slip.

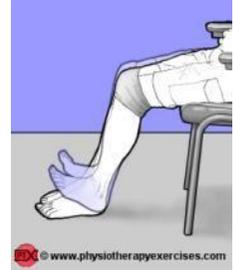
1. Position yourself sitting with both feet on the floor. Start with your knee bent and foot on the floor. Raise your knee so that your foot is off the floor, and then lower slowly. Repeat 10 times on each leg.



2. Position yourself sitting with your knees bent. Practise straightening your knee as much as possible and hold for 2-3 seconds. Then bend your knee as much as possible. Repeat 10 times on each leg.



3. Position yourself sitting with your feet together in front of you. Start with your feet flat on the floor. Keeping your heels on the floor, bring your toes towards you. Then perform the opposite lifting your heels up while keeping your toes on the floor. Repeat 20 times.



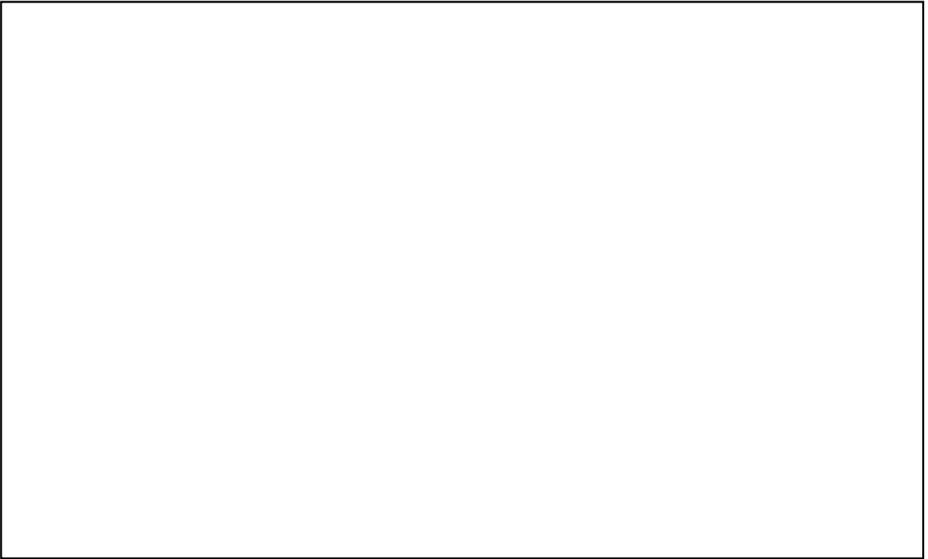
4. Position yourself sitting on a chair with your arms crossed and feet shoulder width apart. Bring your shoulders forwards and stand up. Stick your bottom back and return to sitting. You can do this pushing up from the arms of the chair for support. Repeat 10 times.



## Nutrition

You can drink any fluid freely and eat normally as day 0. Please see details on page 7. If you are prescribed Ensure® drinks, try to have at least three bottles a day.

## Notes



## Exercises and nutrition: Day 2

### My goals:

- To continue breathing exercises as per day 0
- To sit out of bed for all meals
- To mobilise 60m twice on the ward
- To drink freely, aiming to have at least 5 cups a day
- To eat normally from the hospital menu, aiming to finish at least ½ each meal and pudding

These exercises should be completed in standing holding onto a firm surface. These exercises can be completed as often as you can throughout the day.

1. Position yourself standing with a table nearby for support. Practise marching on the spot. Ensure that you lift up your legs an equal amount. Repeat 30 seconds to 1 minute.



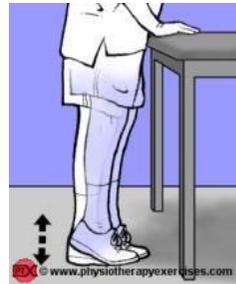
2. Position yourself standing with your hands holding onto a firm surface and squat. Repeat 10 times.



3. Position yourself standing with your feet together. Start with one leg beside your body. Lift your leg out to the side. Ensure that you keep your body upright and your toes pointing forward. Bring your leg back down to your side. Repeat 10-20 times on each leg.



4. Position yourself standing with your feet together. Start with your heels on the ground and stand on your tip toes. Lower back down onto your heels slowly. Repeat 20 times.

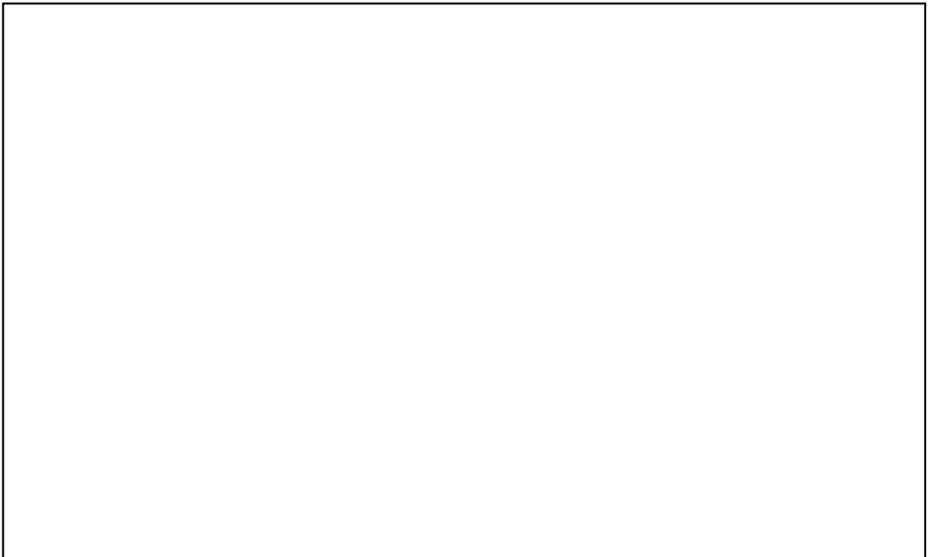


## **Exercise and nutrition: Day 3**

### **My goals:**

- To continue exercises as per day 2 and 3
- To sit out of bed for all meals
- To mobilise freely and regularly on the ward throughout the day
- To drink freely, aiming for at least 5 cups a day
- To eat normally from the hospital menu, aiming to finish more than ½ each meal and pudding

### **Notes**



## Exercise and nutrition: Day 4

### My goals:

- To continue exercises as per day 2 and 3
- To sit out of bed for all meals
- To mobilise on ward and pre-admission level of function
- To drink freely, aiming for at least 5 cups a day
- To eat normally from the hospital menu, aiming to finish more than  $\frac{1}{2}$  each meal and pudding

### Notes



## **Exercise and nutrition: Day 5**

### **My goals:**

- To have good pain control with oral analgesia (pain medication)
- To return to near pre-admission level of function
- To be aware of discharge plan
- You should eat normally after surgery. If you have difficulty managing a normal meal portion, try having smaller meals more often and gradually increase to your normal portion sizes and frequency.

**Your doctor will advise you about heavy lifting and driving as required. Your physiotherapist can provide you with advice, if you find you require more support at home or any equipment on discharge from the hospital.**

**Please write down any concerns you may have so your healthcare professionals can discuss these with you.**

### **Notes**

## **Contact us**

During office hours (Monday to Friday, 9am-5pm) you can contact your ERAS/HPB clinical nurse specialist (CNS):

Mobile: 07971 515 946

Tel: 020 7794 0500, bleep 4014

Outside of office hours, at weekends and bank holidays you can call the HPB ward at any time and speak to a nurse.

Royal Free London switchboard: 020 7794 0500

9 West ward: 020 7830 2718

Visiting times: Monday to Friday, 2-8pm

Royal Free London NHS Foundation Trust

Pond Street

London

NW3 2QG

020 7794 0500

## **More information**

For more information about the hepato pancreato biliary (HPB) service at the Royal Free London, please visit our website: <https://www.royalfree.nhs.uk/services/services-a-z/liver-services/>.

## **Your feedback**

If you have any feedback on this leaflet or for a list of references for it, please email: [rf.communications@nhs.net](mailto:rf.communications@nhs.net).

## **Alternative formats**

This leaflet is also available in large print. If you need this leaflet in another format – for example Braille, a language other than English or audio – please speak to a member of staff.

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