

# Physiotherapy for pectus repair

## Patient Information

Date: .....

Name: .....

Physiotherapist: .....

Do only the exercise stated and shown  
by your physiotherapist. This leaflet  
is a guide for your own personal  
use, not to be used by any  
other persons.

Clinical and  
diagnostic  
support centre  
Physiotherapy

## Introduction

This booklet is designed to give some guidelines and information about how the physiotherapy team at The James Cook University Hospital will help you in your recovery following your operation.

Physiotherapy plays an important part in your recovery after your operation. Your physiotherapy treatment will focus on three main areas:

- Chest care
- Postural advice
- General mobility

The exercise instructions in this booklet are given as a general guideline only as each patient is treated as an individual and the exercise regime may vary slightly depending on the type of operation or your consultant's instructions.

If you are in doubt about the information given in this booklet, please ask your physiotherapist.

All the exercises contained within this booklet will be taught to you by your physiotherapist.

## Physiotherapy before your operation

A physiotherapist will see you prior to your operation. They will teach you exercises to practice before and after your operation. This is usually done at your pre-assessment clinic appointment or on the ward at the time of your admission.

## Your physiotherapy exercises will include:

- Deep breathing exercises
- Huffing and supported coughing
- Shoulder exercises
- Leg exercises
- Postural exercises
- General mobility

## Incentive spirometry

You may be given an incentive spirometer (as shown below) before your surgery to use. We will continue to use it after your surgery so please bring it with you into hospital. It is best to use whilst sitting upright.

### To use your incentive spirometer:

- Take a long, steady breath in through the mouthpiece keeping the small yellow disc in the smiley face.
- Aim to get the large yellow disc as high up in the cylinder as possible.
- Move the yellow marker on the side to show how high it reached.



## What to expect after your operation

You will start to sit up out of bed on the first day after your surgery and walk daily on the ward assisted by the nursing and physiotherapy staff. Your mobility should improve each day, and you will soon be able to walk on your own again - in fact walking soon after your surgery is encouraged as it will improve your lung function. Lack of walking at this stage and spending too much time in bed can actually cause pneumonia or chest infection. It will be normal to initially experience some shortness of breath on exercise/ walking, but it will improve with time as you do more.

## Chest care

Deep breathing exercises begin immediately after your operation. Some people become chesty in the first few days following surgery due to extra phlegm production as result of:

- Having an anaesthetic
- The discomfort/pain from your chest wound limiting you from taking in deep breath and coughing.
- Reduced mobility and shallower breathing in the first few days after surgery.

Your physiotherapist will assess your breathing and how your lungs are working. They may advise on the ideal position to improve your comfort and lung function.

If you practice before your operation it is easier to remember these exercises afterwards.

Following your operation you need to perform your breathing exercises every hour that you are awake including using your Incentive spirometer (if you have been given one).

### These exercises include:

Deep breathing exercises aimed at keeping your lungs clear after your operation together with huffing and coughing.

### Procedure:

- Sit upright with your hands placed over the sides of your chest.
- Take a deep breath in slowly through your nose.
- Hold this breath in for one to two seconds and then breathe the air out slowly through your mouth.
- Repeat five times, then huff five times.

To do a huff take a breath in then force the air out quickly through an open mouth, as if you are steaming a window/ glass.

If you have any phlegm in your throat then have a supported cough.

Coughing – always take a deep breath in and have a good strong cough. It is important that you always use a small supporting pillow over your wound when coughing. Afterwards, take normal relaxed breaths.

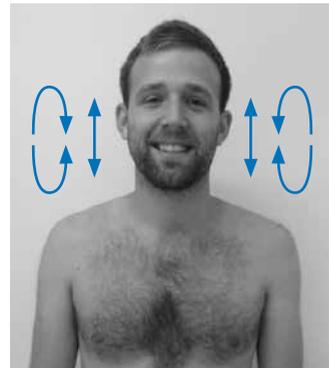
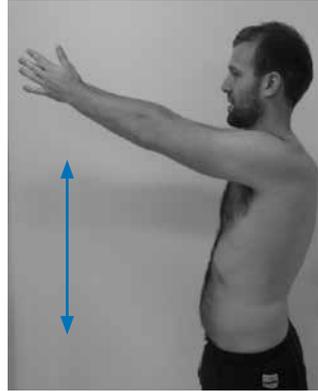
If pain after your operation is making it difficult for you to take a deep breath, huff or cough then please inform your nurse.

## Exercises

**Arm and leg exercises:** From the first day after your surgery we will encourage you to begin exercising. This may initially involve some gentle arm and leg exercises to prevent stiffness, help circulation and increase general mobility by walking. Repeat each exercise two to three times per day.

### Arm exercises:

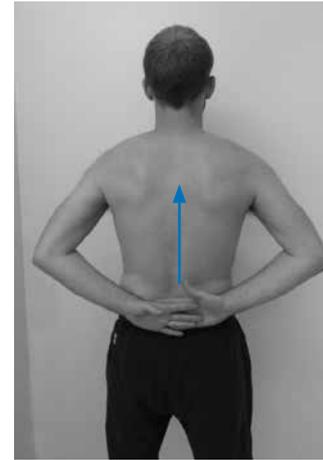
- While standing or seated, raise both arms up above your head as pain allows, then back down. Repeat five to ten times.
- Gentle shoulder shrugs (up/down) and shoulder rolls (forwards/backwards)



- Place your hands on top of your head



- Bring your hands behind your back.  
Slowly stretch your hands up towards your shoulder blades.



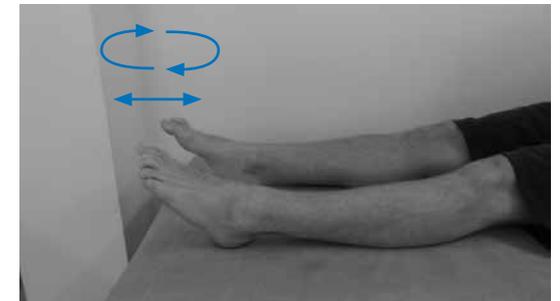
- Place your hands behind your neck



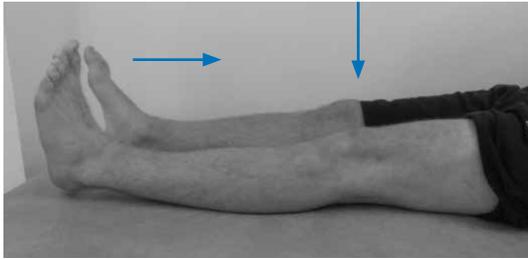
### Gentle leg exercises:

These exercises are taught to help keep your muscles strong and promote your circulation. To do these exercises sit on the bed with your legs well supported.

- Bend and straighten your ankles and toes. Repeat ten times.
- Circle your feet from ankles round in one direction and then repeat in the other direction. Repeat ten times each direction.



- Tighten your thigh muscles on the front of your legs by pressing the back of your knee into the bed and pulling your toes towards you.



- Tighten your thigh muscles as previously and keep your leg straight and lift leg off the bed a small height. Hold for two seconds, then slowly lower it. Repeat ten times with each leg.



- Straighten one leg out in front of you whilst sitting. Hold for five seconds, then relax. Repeat ten times with each leg.



## Physiotherapy after your operation

Following your operation you may require oxygen support whilst recovering within PICU/ICU or high dependency unit. You will be attached to monitors, chest drains, catheters, and lines for your drugs or fluids. This is all routine and its nothing to be concerned about.

It is important that you follow the advice of your physiotherapist and that you continue exercising between their visits.

## General mobility

Your physiotherapist will encourage you to progress your mobility from day one after your operation.

The physiotherapist will monitor and assess your ability to do simple tasks during your hospital stay. Any problems will be identified and treated as appropriate in conjunction with other members of the team.

Routine patients are usually discharged home within four to seven days (but may be sooner dependant on your surgery), and after completing a flight of stairs.



## After discharge from hospital

After your operation, your lung function should improve and your ability to exercise will also gradually increase.

## Exercises for the first 4-6 weeks after discharge

### Walking:

- Improves your fitness after your operation.
- Should become part of your daily routine.
- Should start immediately after discharge from hospital.
- Distance should be increased daily with increasing speed to make you feel slightly out of breath.

## What happens if I have a chest infection?

The signs of a chest infection may be...

- Coughing up more phlegm than normal.
- Your phlegm may change colour- white/yellow/green.
- You may have a temperature.
- You may be more short of breath than normal.

Consult your GP immediately if you suspect that you may have a chest infection, breathing exercises will help you clear phlegm effectively. You will have done these breathing exercises in the early days after your lung operation. However, you may not remember them exactly so please refer to page five in this booklet.

**Other advice:** Your wound must be given time to heal properly, avoid putting too much strain/tension upon it. Avoid lifting anything heavy for the first four to six weeks whilst your wound heals. After your discharge from hospital you may return to gentle hobbies. Avoid contact sports for three months or as advised by your consultant.

## Posture

Once you have left the hospital it is your responsibility to check and correct your posture.

Try standing in front of a mirror to help in adjusting and correcting your posture or stand with your back to a wall pushing your shoulders back.



Continue doing your shoulder flexibility exercises as shown on pages six and seven in the booklet.

## General advice

- You will be sent an outpatient appointment in the post to see your consultant in four to six weeks following your surgery.
- At two to three months after your operation you should be able to do everything you did before your operation. Consult your doctor before you participate in any competitive or contact sports.
- You may return to school / work when you feel able to. This should be within four to six weeks. Please discuss return to school / work and also driving, if this affects you, either when in hospital or at your outpatient appointment.
- Holidays abroad - follow your consultant's advice from your outpatient appointment.
- Wound pain / discomfort may persist for a few weeks after your operation, this is due to the healing process. Any concerns with persistent or unresolving pain, please seek advice from your consultant or specialist nurse.

## Physiotherapy

This booklet is designed only as a guideline.

If you have any comments on the booklet or the physiotherapy service please contact the rehabilitation centre on **01642 854453**.

## Comments, compliments, concerns or complaints

South Tees Hospitals NHS Foundation Trust is concerned about the quality of care you receive and strives to maintain high standards of health care.

However we do appreciate that there may be an occasion where you, or your family, feel dissatisfied with the standard of service you receive. Please do not hesitate to tell us about your concerns as this helps us to learn from your experience and to improve services for future patients.

## Patient Advice and Liaison Service (PALS)

This service aims to advise and support patients, families and carers and help sort out problems quickly on your behalf.

This service is available, and based, at The James Cook University Hospital but also covers the Friarage Hospital in Northallerton, our community hospitals and community health services. Please ask a member of staff for further information.

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