

## Contact details

If you have any questions about any of the information contained in this leaflet please contact:

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Between 8.30am and 4.30pm.

Answerphone messages can be left at any time but will only be collected during the above hours.

The Trust endeavours to ensure that the information given here is accurate and impartial.

If you require this information in another language, large print, audio (CD or tape) or braille, please email the Patient Information team at [patient.information@ulh.nhs.uk](mailto:patient.information@ulh.nhs.uk)



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## Rehabilitation and acute illness

### Physical Factors

### Exercise Booklet

Physiotherapy Departments

[www.ulh.nhs.uk](http://www.ulh.nhs.uk)

## Aim of the leaflet

This leaflet is aimed at any patient who needs an exercise programme and how it can benefit you.

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## Introduction

This is a general exercise booklet which can be used throughout your course of treatment.

The aim is to help you maintain your muscle strength and function that you may have lost during your chemotherapy time and help you regain your strength and mobility you will have lost after your surgery.

You may easily feel tired at first, which is normal as your muscles need time to build their strength again. It may take some months until you feel that you are back to normal. Everyone is different and so it is impossible to give an exact timetable for how much exercise you should take and when.

This booklet aims to give you general advice about exercise and how regular exercise should form part of your recovery.

Please do not be alarmed if intensive care is mentioned as this booklet is designed to cover any patient who has been through an acute illness. Some points may apply to you so please read on.

**Please make sure you read through the whole of this booklet before you begin any exercise.**

## Why exercise?

Exercise is important during chemotherapy and after being ill and will:

- Strengthen your heart.
- Help to rebuild lost muscle.
- Help to reduce stress and improve your mood.
- Help you to sleep well.
- Improve movement in your joints.
- Improve your confidence.
- Increase your capacity for physical work.

While you are ill your body will take what it needs to survive from its stores in the muscle. This means that all your muscles will have got smaller and weaker and so you may find:

- You feel tired very quickly even when you are pottering about.
- You have difficulty climbing stairs and may have to take a break part way.
- Your balance is not as good as it used to be.

The good news is you can rebuild your muscles back to what they were before and in some cases, even better. But you will need to do some exercises, it will not happen by itself. It may take some months until you feel that you are back to normal. Everyone is different and so it's impossible to give an exact timetable for how much exercise you should take and when.

Here are some of the exercises that people who have been on intensive care have taken up. You may feel at the moment that you will never be able to get fit enough to try any of these, but be patient and persevere, it will help.

Additional exercise could include:

- Walking (indoors and outdoors)
- Bowling

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- Ball room dancing
- Swimming
- Golf
- Yoga
- Gardening
- Cycling
- Walking up and down stairs

It is important to remember that walking around your house and using the stairs is also classed as exercise.

### Important points about exercise

Follow the instructions in the exercise plan (see page 11).

- Do not try to do too much too soon, because this will just make you feel overtired and disheartened.
- If you have had a bad day, don't get upset about it. Everyone feels like that at some time. Ask yourself if you've been doing rather more than normal over the past few days. This may explain why you feel a bit tired.
- Always warm up and cool down before and after your exercise.
- Allow a little time after eating before you exercise, to allow food to be fully digested.
- If you feel unwell reduce your normal level of exercise until you feel well again.

### When to stop exercising

You should stop exercising and rest if you experience any of the following:

- Severe chest pain
- Increase in chest tightness
- Dizziness or feeling faint
- Much more breathlessness than you experienced the last time you did this exercise
- Joint or muscle pain

If the symptoms persist, contact your GP immediately. If the symptoms settle in 2 to 3 minutes, do not continue with the exercise but contact your physiotherapist or GP for advice.

### How hard should I be working?

The Borg Scale (Page 7) allows you to record how hard you are working during a particular activity. The scale is made up from numbers 6 to 20 and as you can see, by some of the numbers there are words explaining what the level of exertion should feel like to you. When you are first able to do an activity you may find that it takes a lot of effort and this would be a score of 13 or above. Choose the number that best describes how difficult you are finding the activity. Ideally you want to be working around 12 to 14.

It is very important that you do not suddenly start or stop your exercise, so always warm up before starting your exercises and cool down afterwards. During the warm up and cool down you should be aiming for 9 and 10 on the Borg scale. Your physiotherapist will give you advice on a suitable warm up and cool down.

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- j. Sitting or standing, raise your arms above your head. Hold for 5 seconds and slowly return to your side. Repeat \_\_\_\_\_ times. This can be made harder by holding a small hand weight



### Acknowledgements

Information provided is based on recommendations from the National Institute for Health and Clinical Excellence (NICE) and work by Dr Christina Jones from Whiston Hospital, the staff of Kings Mill hospital, Critical Care Unit, and staff of Derby Hospital NHS Foundation trust.

### Borg Scale of Perceived Exertion

6		
7	Very very light	
8		
9	Very light	Warm up/cool down
10		Warm up/cool down
11	Fairly light	
12		Exercise
13	Somewhat hard	Exercise
14		Exercise
15	Hard	
16		
17	Very hard	
18		
19	Very very hard	
20		

Whilst you are in hospital your ward physiotherapist will inform you how many repetitions to be doing and advise you how to progress your exercises.

When you do exercises at home try it out and rate it using the Borg exertion scale. When performing an exercise you want to be working between 12 to 14. If when you first try an exercise you score your exertion above 15 then this exercise is too difficult for you and you should either:

- Do fewer repetitions.
- Do it for a shorter time.
- Choose an easier exercise to replace it.

If on the other hand when you first do an exercise you score below 9 then this is too easy for you and you need to either:

- Increase the number of repetitions.
- Increase the time you do it for.
- Choose a harder exercise.
- Add some weight i.e. hold a small bottle of water.

When you have completed your exercises don't forget to record it in your exercise diary (page 19) and record your Borg score.

## After Intensive Care

If you have been on Intensive Care for a long period you will have lost a lot of strength and mobility. You may have many physical side effects from the stay on intensive care including stiff joints, tiredness and weakness.

Your joints may feel stiff. When a joint has not been used for a while, it stiffens up, even in young people. The stiffness will go as the joint is used more.

It may be quite a shock when you realise how weak you have become whilst in hospital, especially if you cannot remember a

- g. Standing tall behind a chair, slowly bend both knees to a squat, hold for 5 seconds and slowly return to a stand. Repeat \_\_\_\_\_ times.



- h. Lying on your back, squeeze your bottom and push through your feet to lift your bottom off the floor. Your shoulders should remain in contact with the floor at all times. Hold for 5 seconds and slowly lower back to the floor. Repeat \_\_\_\_\_ times



- i. Sitting down. Bend your elbow and then straighten your elbow. Repeat \_\_\_ times. This can be made harder by holding a hand weight.





- d. Standing tall behind a chair, slowly bend both knees to a squat, hold for 5 seconds and slowly return to a stand. Repeat \_\_\_\_\_ times.



- e. Start in a sitting position with your arms across your chest, slowly come up into standing and slowly return to sitting in a controlled manner. Repeat \_\_\_\_\_ times.



- f. Standing behind a chair, pull/row one arm towards your chest. Hold for 5 seconds and slowly lower. Repeat \_\_\_\_\_ times. This can be made harder by holding a small hand weight.



lot of your stay in the intensive care unit. It can be very distressing to suddenly wake up and be hardly able to move, especially if you were very active before you became ill.

## During chemotherapy

You need to try and maintain your level of physical activity during chemotherapy and increase it afterwards. The physically fitter you are the quicker your recovery will be with less chance of complications.

A recent study completed in Nottingham found that 85% of patients having chemotherapy lost skeletal muscle mass during this time (Tan 2010). Being physically active throughout this treatment and prior to your operation will help limit this. Incorporate physical activity into your daily routine for maximum benefit.

## Resistance exercise

Resisted exercise helps improve muscle strength and flexibility. An example of resisted exercise is working with weights. Some exercise is aerobic and resistance e.g. going up and down stairs, walking up a hill as you are using your body weight to move around.

## Common questions about exercise

### “Am I too old to take up swimming or jogging?”

Whatever age you are it is possible to take exercise. Even if all you can manage is a few minutes of home exercise each day you will start to feel the benefits.

### “I get breathless very quickly when I exercise - should I continue?”

As you build up your exercise you will find you will gradually be able to do more before you get breathless. As with all your other

muscles, the muscles involved in breathing have got weaker and smaller. They will gradually get stronger as you exercise. This is also true for patients with chronic chest problems. To become fitter you need to be active enough to make you feel slightly breathless for at least ten to twenty minutes.

### **“I have a chronic chest problem, is it safe for me to exercise?”**

Yes, research has shown that chronic chest sufferers benefit from graded exercise because it makes their muscles able to use oxygen more efficiently.

### **Dealing with fatigue**

Fatigue can be a big problem when undergoing chemotherapy and it is important to consider this when exercising, though there is also evidence to support exercise in reducing the symptoms of fatigue, aiding sleep as well as reducing nausea and vomiting. If you suffer from fatigue it is still important to exercise regularly or at least stay active in your daily routine.

You may find that doing 2 to 3 short bursts of 10 minutes of exercise followed by a rest works better than one 30 minute session.

Pay attention to how your body reacts to exercise, you may find using the diary of what exercise you do and how you feel to help you plan better.

### **Progression**

Once your chemotherapy has finished you may feel able to progress your level of activity. Some suggestions of how to do this are given earlier.

### **Exercise programme 2.**

- a. Standing tall behind a chair, resting hands on the back, march on the spot. Repeat \_\_\_\_\_ times.



- b. Standing tall behind a chair, squeeze your bottom together and move one leg out behind you. Hold for 5 seconds and repeat \_\_\_\_\_ times.



- c. Standing tall behind a chair, slowly move one leg out to the side. Hold for 5 seconds and repeat \_\_\_\_\_ times.



- j. Sitting down, place a towel between your knees. Squeeze the towel with the insides of your thighs, hold for 5 to 10 seconds and repeat \_\_\_\_ times.



- K. Sit or stand. Hold a rolled up towel and squeeze, hold for 5 seconds and repeat \_\_\_\_\_ times.



## Exercise Programme 1.

- a. Sitting down, alternately move from your toes to your heels touching the floor. Repeat \_\_\_\_\_ times.



- b. Sit or stand. Lift your shoulders and relax. Repeat \_\_\_\_\_ times.



- c. Sit on a chair. Pull \_\_\_\_\_ your toes up and straighten your knee.. Hold for 5 to 10 seconds and slowly relax your leg. Repeat \_\_\_\_\_ times.



- d. Sit or stand. Lift your arm up letting the thumb lead the way. Repeat \_\_\_\_\_ times on alternate arms.



- e. Sitting on a chair. Lift your leg off the seat keeping the knee bent. Return to the starting position. Repeat \_\_\_\_\_ times on alternate legs.



- f. Forearm on a table with the palm turned down. Alternately turn palm up and down keeping elbow still. Repeat \_\_\_\_\_ times.



- g. Sitting on a chair. Step one leg out to the side then return it back to the middle. Repeat \_\_\_\_\_ times on alternate legs.



- h. Sitting down. Bend your elbow and then straighten your elbow. Repeat \_\_\_\_\_ times.



- i. Put your thumb against each fingertip in turn. Repeat \_\_\_\_\_ times.

