

# Building your fitness following major surgery or a prolonged hospital stay



## Physiotherapy Department

This leaflet aims to provide information to help you on your road to recovery following discharge from inpatient physiotherapy. The advice given in this booklet aims to give information to a range of conditions. If you seek further specific advice speak to your ward physiotherapist or doctor.

## Introduction

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Following a prolonged hospital stay it can take several months to regain fitness. Everyone recovers at different speeds and this is dependent on your age and fitness prior to surgery/illness.

The physiotherapy team will work with you to develop an exercise programme based on your goals and level of fitness. This booklet is designed to give you the tools to help you carry on with your rehabilitation.

## What should I expect when I return home?

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For the first couple of weeks following discharge you may find doing every day activities and adjusting to home life tiring. This can be normal following a prolonged illness or surgery and should gradually improve as your exercise tolerance increases. It is important to build up to these activities and pace yourself. You may need to prioritise activities and remember to do things little and often at first to avoid feeling too tired.

## What are the benefits of exercise?

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- Prevention of a chest infection
- Reduce the risk of developing blood clots
- Increases your cardiovascular fitness
- Increases your muscle strength
- Increases your independence with daily activities

## What are the basic principles of exercise?

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- **Specificity** – exercise should be specific to what you are trying to achieve e.g. improving leg strength to help climb stairs.
- **Overload** – muscles and systems will only improve when increased demand is placed upon them e.g. walking 10m further every other day.
- **Recovery** – this allows the body to rest and time for adaptation to occur.
- **Reversibility** – improvements achieved can be lost when exercise is not maintained e.g. if your unwell you may need to build back to previous activity levels gradually.

## How do I progress my activities? FITT principle

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- **Frequency** – increase the number/ repetitions you do of an activity.
- **Intensity** – how hard the activity is – walk faster, cycle harder.
- **Time** – increase the time spent on each activity.
- **Type** – when activities become comfortable, challenge yourself and try something different e.g. if walking is too easy try jogging.

It is important to remember when progressing activities to only change one aspect at a time e.g. repetitions or distance walked.

# What exercises can I do at home?

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## Strengthening

### Lower limb:

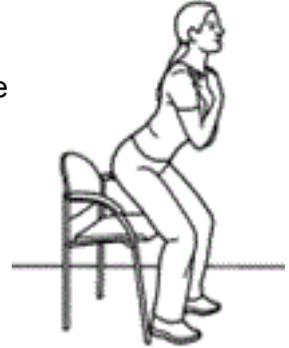
1. Sit to stand.

Stand up and then sit down lowering slowly into an arm chair. This can be made easier and more difficult by changing the height of the chair or without using your arms.

Repeat \_\_\_ times.

To make this exercise harder, increase the repetitions or reduce the support

(see exercise below). It is important to keep your knees over your toes.



2. Stand straight with feet apart and pointing forwards.

Slowly bend your knees and then return to starting position.

Repeat \_\_\_ times.

To make this harder, try holding two tins or drink bottles in your hands while doing this exercise.



3. Stand in front of the bottom step, holding bannister.

Step up \_\_\_ times with left leg leading and then bring right leg up to meet it.

Step right leg down, then left.

Repeat \_\_\_\_\_ times.

Repeat above with right leg leading up and left leading down.

Repeat \_\_\_ times.

If this is too easy increase the number of repetitions or decrease the amount of rest.



4. Stand holding onto a surface for support. Push up onto your toes and slowly lower back down onto the floor.

Repeat \_\_\_ times.

If this is too easy then hover your hands above the surface whilst you do this exercise.



## Upper limb

1. Stand with arms straight by your side holding two weights. You can use a tin of food or drinks bottles to do this. Bend at the elbows alternately.

Repeat \_\_\_ times.



2. Sit or stand with your arms by your chest holding two weights. These can be tins of food or two drinks bottles. Lift your arms straight above your head alternately.

Repeat \_\_\_ times.



3. Stand with your feet together facing the wall. Extend your arm straight against the wall. Allow your arms to bend and bring your upper body forward toward the wall. Like a press up but against the wall. Then straighten back to the starting position.

Repeat \_\_\_ times.



## Core

1. Lying on your back with knees bent and feet on the floor. Gradually lift your pelvis and lower back off the floor. Hold the position for 5 seconds and lower down slowly returning to starting position.

Repeat \_\_\_ times.



2. Lying on your back with knees bent.

Lift your hips up and keep them straight while shifting the weight over to one leg. Then straighten the other leg for 5 seconds - put it back down and repeat with the other leg.

Repeat \_\_\_ times.



## Cardiovascular

**During cardiovascular exercise you should find yourself breathless but able to hold a conversation in short sentences. It is normal to be warmer and sweaty when exercising.**

1. Walking – continue gentle walking. To make this harder incorporate inclines and declines on varying surfaces. Build up the distance and/ or time you are able to walk gradually. It can be helpful to use street markings to track your progress or set a timer.

You can build up to jogging and running over time.



2. Stairs – going up and down the stairs is great cardiovascular fitness and strengthening for your lower limbs.

3. Cycling – if you have a bike this is a good way to build fitness. Build up the time and distance spent on the bike indoor or outside.

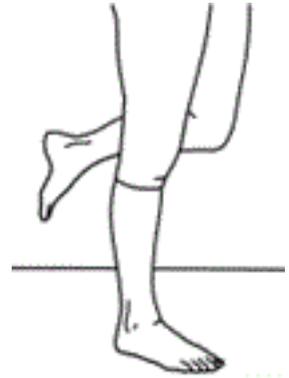


## Balance

1. Stand upright and gently move your weight until you find your natural balance. Close your eyes and balance. Aim for 2 minutes.

2. Lift foot off the floor and keep your balance. Hold this position for as long as you can. Then change legs and repeat. Ensure a table of solid surface is in front of you at all times.

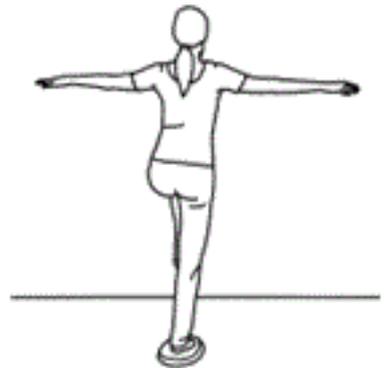
Repeat \_\_\_ times.



3. Stand on one leg on a cushion or folded up pillow on the floor. Concentrate on keeping your knee and hip in line. Aim for 2 minutes. Ensure a table of solid surface is in front of you at all times.

Hold \_\_\_ seconds.

Repeat \_\_\_ times.



**If you experience chest pain, discomfort or undue shortness of breath you should stop immediately and contact a health professional.**

## **Advice**

Try to incorporate exercises into your daily routine. This can be made easy by adding an exercise to your normal activities – walk up and down the stairs three times rather than once or get off the bus 2 stops sooner and walk the rest of the way.

The activities advised should not be painful and are designed to cover a range of abilities.

**Current guidelines suggest aiming to complete 30 minutes of moderate intensity cardiovascular exercise 5 times a week, including flexibility and strength exercises.**

## Commonly asked questions

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Please read advice appropriate to your hobbies and interests.

### **Can I go to the gym?**

You are encouraged to use the gym to improve your cardiovascular fitness and strength. When starting activities at the gym it may be beneficial to seek advice from a personal trainer or gym instructor who can develop a suitable exercise program.

Check with your GP if there are exercise referral schemes you can join or special rates available to patients at your practice in local gyms.

### **Can I swim?**

Swimming is beneficial in developing cardiovascular fitness. However you must ensure you have no open wounds, drain sites, drains or feeding tubes. If unsure, check with your doctor who can advise you on this.

### **When can I return to work?**

Check with your consultant. It may be beneficial to think about a staged return to work e.g. start by only doing a half day twice a week and build up to full time over the coming months.

### **When can I drive again?**

Check with your consultant as this may depend on your surgery. Make sure you can wear your seat belt comfortably and can perform emergency maneuvers without hesitation. You will also need to check with your insurance company to ensure you are covered within your policy.

### **When can I return to sport?**

It is advised that you check with your consultant prior to returning to sport. Graded return to sport with exercise professionals present is recommended.



## Useful websites

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**Please read advice appropriate to you:**

**[www.opa.org.uk/](http://www.opa.org.uk/)**

Oesophageal Patients Association is a support group for those who have had or are going to have surgery. Patient support meetings are advertised online.

**[www.cancerresearchuk.org/about-cancer/type/oesophageal-cancer/](http://www.cancerresearchuk.org/about-cancer/type/oesophageal-cancer/)**

Informative pages that include information regarding different operations to treat oesophageal cancer.

**[www.pancreatitis.org.uk/](http://www.pancreatitis.org.uk/)**

Pancreatitis support network.

**[www.cancerresearchuk.org/about-cancer/type/pancreatic-cancer/treatment/surgery/having-your-operation-for-pancreatic-cancer](http://www.cancerresearchuk.org/about-cancer/type/pancreatic-cancer/treatment/surgery/having-your-operation-for-pancreatic-cancer)**

Information on what to expect before and after pancreatic cancer surgeries.

**[www.pancreaticcancer.org.uk/](http://www.pancreaticcancer.org.uk/)**

A support group for pancreatic cancer patients, their families and friends. This website includes an online discussion board with patient stories.

**[www.liver.co.uk/patient-information.html](http://www.liver.co.uk/patient-information.html)**

A website dedicated to surgery of the liver with reference to Professor Karanjia Consultant Hepato-Pancreatico-Biliary & Gastrointestinal surgeon based at the Royal Surrey County Hospital.

## References

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- Garber et al., (2011). *Medicine and Science in Sports and Exercise*: 43 (7), pages 1334-1259.
- Rivera-Brown & Frontera (2012). *PM & R*: 4 (11), pages 797-804.
- Scrivener et al., (2015). *Journal of Physiotherapy*: 61 (2), pages 61-67.



## Contact details

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For further queries do not hesitate to contact the ward physiotherapist or telephone:

### Physiotherapy Department

Royal Surrey County Hospital  
Guildford, Surrey, GU2 7XX.

**Telephone:** 01483 464153

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## PALS and Advocacy contact details

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Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

**Telephone:** 01483 402757

**Email:** [rsc-tr.pals@nhs.net](mailto:rsc-tr.pals@nhs.net)

**Opening hours:** 9.00am–3.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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