Patient Information
H03

NHS Golden Jubilee

Physiotherapy advice following heart transplant

Reviewed: November 2025
Next review: November 2026
Version 8

About this leaflet

The purpose of this leaflet is to give you information on physiotherapy and exercise guidelines following your heart transplant.

This is a generalised guide only. Your physiotherapist will develop a programme specifically for you.

Stages of physiotherapy

The day after your heart transplant, you will be visited by your physiotherapist. Exercises will be gentle at this point, consisting of deep breathing and limb movements to keep your joints supple. These are very important to keep your chest clear and strengthen your muscles which may have been weakened while you were unwell.

As soon as your condition is stable you will be helped into a chair by your physiotherapist or nurse in the intensive care unit. You may feel dizzy at first, but this is normal and will soon settle.

Physiotherapy will consist of exercises in your room, marching on the spot, bed exercises and exercise pedals. When you are ready, you will be encouraged to mobilise on the ward and use the static bike. Your physiotherapist will devise an exercise programme specifically suited to your needs. You will also visit the Physiotherapy gym to aid your rehabilitation. We will ensure you are able to climb stairs and walk safely prior to you going home.

Your physiotherapy will continue after your discharge as an outpatient at your local hospital as part of a Cardiac Rehabilitation Programme where you will be offered a tailored exercise program to suit your own needs. This will also record your progress and set goals for your recovery.

Things to consider when exercising

It is important that after your transplant you look after your breast bone, which has been broken during you surgery.

Although it has been wired together and is very stable we want to make sure it heals well and must avoid undue strain. Your physiotherapist will advise you the best way to protect your breast bone and appropriate exercises.

When exercising following your heart surgery, there are several issues to consider.

Warm up: it is vital that you allow a warm up period of around 10 minutes before exercising. It takes around eight minutes for your body to produce the hormones that speed up your heart rate. This time will also allow for increased blood flow to your muscles and to improve their flexibility reducing the chance of injury.

Slow heart rate response: before your operation, your heart relied on its nerve supply to increase your heart rate in response to exercise. Your transplanted heart has no nerve supply. Initially the heart pumps harder in response to the increased blood flow caused by your muscles contracting, it also relies on hormones circulating in the blood stream to receive instructions on how quickly it should be beating. These hormones gradually increase during exercise, however this takes several minutes.

Overall the response of a transplanted heart is a lot slower than a normal heart. Therefore it is very important that a “warm up” and “cool down” is completed, your physiotherapist will guide you on this.

Drugs: there are side effects of your medication which may affect your exercise capacity. Long term steroid use can cause muscle weakness, obesity, and osteoporosis. Tremor is also a common side effect of drugs. These can be aided by varying types of exercise; your physiotherapist can tailor your exercise programme to target specific concerns you may have.

Lack of fitness: most patients are inactive for long periods before their surgery. This will result in significant losses in muscle strength and flexibility. The ability of your new heart to pump blood will also be reduced due to the loss of nerve supply, again it will be very important that you complete a ”warm up” and “cool down” and that your exercise programme is a slow and steady progression guided by your physiotherapist. It is not uncommon to feel short of breath and this will improve over time.

Difficulty of exercise: the goal of your exercise program is to strengthen your heart muscle. This is done by gradually and gently increasing the work for your heart for short periods up to five times a week. Exercise that strengthens your heart muscle is called aerobic exercise.

It is not possible to use your heart rate as a guide as it is no longer regulated by your nervous system. To measure your exertion levels we advise using the Rate of Perceived Exertion (RPE) Scale. This scale measures breathlessness and is explained on the back page of this booklet. You should also discuss this with your physiotherapist. Aim to work between 12 and 14 on the RPE Scale.

Strengthening: you should not start arm exercises with resistance until three months after your transplant. This is the time that your breast bone takes to knit back together and fully heal. It is common for patients to lose large amounts of muscle particularly if you have been waiting a while for your transplant. Strengthening exercises are the quickest way to replace this muscle.

You can begin strengthening your legs as soon as you get home. Before you begin it is very important you are taught how to exercise safely by your physiotherapist.

Cool Down: This is the opposite of your warm up, a gradual reduction of exercise intensity is necessary to allow your heart rate to slow gradually and allow levels of exercise hormones to reduce.

Types of exercise

The best form of exercise in the first eight weeks after your operation is walking. Slowly increase the pace and distance you are covering each time. Strolling may not be enough you may have to stride out and use your arms. You can also work on a static exercise bike during this period however leave cycling on a bicycle until your breast bone has healed. Record your progress and set realistic goals with your physiotherapist. Remember to aim between 4 and 7 on the RPE scale.

After eight weeks you can begin playing sports using your arms such as golf, bowling, exercise classes and badminton as long as you are not in any discomfort. Leave higher impact sports such as tennis, squash, football and other team games until three months after your surgery. Your physiotherapist will be able to assess your suitability for returning to these sports.

What if I have a period of rejection?

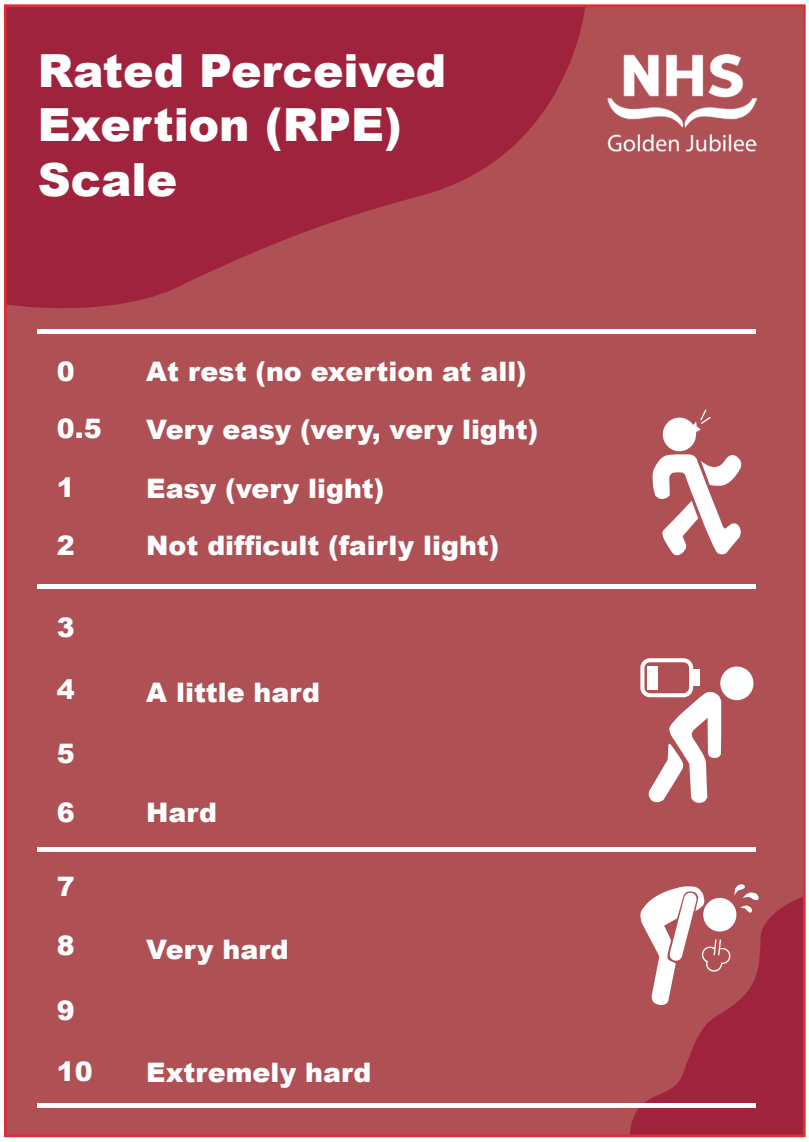
If you suffer a period of rejection after your heart transplant, you should not exercise but can carry on with other daily activities as normal. Once you have had a clear biopsy and feel better, gradually begin exercising again.

Exercise in the community

When you go home you will be referred to your local hospital for cardiac rehabilitation, this will begin approximately six to eight weeks after discharge. If you do not hear from the cardiac rehabilitation team within 8 weeks of getting home then please contact us. You will be invited to an exercise class on your clinic days to bridge you to your cardiac rehabilitation.

Once you have completed cardiac rehabilitation you can discuss with your therapist whether it is suitable to join your local gym where you can work on your own or take part in exercise classes. If you take part in classes, please make sure that your instructor is a qualified fitness professional. Let the instructor know about your surgery and any ongoing problems you may be having.

They may not have come across a heart transplant patient before so bring along some information for them or ask them to contact the physiotherapy department at the Golden Jubilee National Hospital. Remind them that the normal monitoring process may not be accurate and the RPE Scale is generally used.



Please refer back to the prehabilitation leaflet you previously received. We encourage you recommence using your IMT and incentive spirometer as well as increasing you step count.

Benefits of regular exercise

Regular exercise following your heart transplant has many benefits.
It will:

- strengthen your new heart;
- reduce damage to your new heart – particularly if heart disease was the cause of your previous problems;
- help you feel more confident;
- help with weight control;
- reduce blood pressure and cholesterol;
- reduce stress and chances of osteoporosis;
- increase your energy levels;
- assist your body's ability to fight infection; and
- make you feel and look younger and healthier.

Contact

If you have any ongoing issues or have not heard from cardiac rehabilitation, please contact us on 0141 951 5121.

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reviewed for plain English

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