

# Cardiac Surgery - Your Guide to Recovery

## Patient Information – Cardiothoracic Ward 10

### Your role in the management of your health is very important.

Both while you are in hospital and when you return home.

This booklet provides information about common problems that can occur post operatively as well as returning to exercise and activity. We encourage you and your family to read through this and ask any questions that arise before you go home.



### Pain and sensations in the chest

Pain and discomfort near the centre of the chest is mainly due to the healing of the sternum (breast bone) which has been cut through and then firmly wired together. It can take 6 months or more for the bone to completely heal. Other muscle and joint discomfort can be due to muscles and ligaments being stretched during the operation.

If you have had bypass surgery with internal mammary artery grafting, chest wall pain and discomfort may persist for longer than if you have had valve surgery. Some women experience pain, discomfort and numbness in the breasts. Other people can experience numbness in the hands or fingers.

Too much or too little activity and sleeping in one position can also aggravate muscular pain. Your physiotherapist will have advised you about shoulder, neck and trunk exercises that will help to maintain joint movement and muscle strength, help reduce 'aches and pains', and to assist in your return to normal activities. People who maintain their mobility and are positive make a quicker recovery with fewer complications.

Some people feel burning or numbness along the incision site for weeks or months. This is particularly common following internal mammary artery grafting.

It is important to continue taking Paracetamol/Panadol regularly even if you are not in pain, as this will maintain your comfort. If your pain is not controlled or is getting worse, or you feel your sternum clicking/moving when you cough or strain, you need to see your GP.

If you have any chest pain different to your wound pain and like your angina, this is not normal.

**You need to see your GP or ring an ambulance on 111 if it does not go away.**

### Wound care

The lump or swelling at the top of the sternal wound is common and will flatten down after approximately 4-6 weeks.

Your wound dressing is waterproof and should stay on until its removal date as indicated on your discharge information. This will be done by the District Nurse. If at any time water gets into the dressing, you will need to contact the District Nurse to change it.

Tenderness, itching and loss of sensation can also be common. Some women experience sensitivity of the sternal wound. Gentle massage, once the wound has healed, can improve this.



You may also have a leg or arm wound(s). Look after this the same as your other wounds.

Please contact your general practitioner if you experience fever/chills, or if any of your wounds looks swollen, are red, hot to touch or discharging fluid.

- Shower rather than bathe until the incisions are completely healed.
- Avoid hot spas, saunas and swimming pools.
- Wash wounds gently with mild soap avoiding vigorous scrubbing and pat dry with a clean towel. Your skin may flake as the wounds heal. This is completely normal.
- The internal stitches from your surgery are firm and secure and are not affected by the changes you see on your skin.
- Powders and creams should not be applied to the wounds until they are fully healed.
- Incisions sunburn easily so be sure to protect them from overexposure to sunlight during the first year after surgery.

## Leg pain and swelling

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Leg incision discomfort and leg swelling is common after heart surgery. If you develop any sudden leg pain or swelling you need to see your GP.

- It is okay to bend your leg to 'stretch' the scar and stop it stiffening up.
- Avoid crossing your legs because this impairs the circulation and can contribute to leg swelling.
- Avoid standing for long periods.
- Swelling can be reduced by elevating your leg(s) when sitting.
- Ensure white stockings are removed and discarded before discharge, unless advised otherwise.

## Your heartbeat

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It is normal to be more aware of your heart beating, especially when you are lying down. If you have had a mechanical valve replacement you may hear 'ticking'. You should become less aware of this over time.

You may also feel palpitations such as your heart thumping, racing or beating irregularly. This is not uncommon and is usually temporary. If it occurs at regular intervals and you are otherwise well, see your GP if you are concerned about it.

If your heart rate is fast and irregular, lasts for more than 15 minutes, and you feel generally unwell, short of breath, light-headed or dizzy, you need to call an ambulance by dialling 111.

## Blood pressure

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It is important to have the District Nurse and GP check your blood pressure when you see them.

If you feel light headed or dizzy, especially when you stand up, your medication may be lowering your blood pressure too much. Remember, after lying down, to sit for a few minutes before standing and walking. If the light-headedness continues you need to talk to your GP about this.

If you are on water pills when you go home, you need to weigh yourself at least every two days. Once below your pre-operative weight, talk to your doctor about whether you need to stay on these pills. Also talk to your doctor if you notice an increase in your weight with associated ankle swelling.

If you are thirsty or feel light-headed you may be dehydrated and need to drink more.

## Breathing problems

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It is common to feel short of breath especially when you exercise. As long, as you recover when you rest, this is normal. This will improve as time passes and as you increase your activity level.

Remember to continue with your walking program, as regular exercise will help to keep your lungs expanded and prevent complications following your surgery.

One complication we see is the build-up of fluid around the lungs. If you become more short of breath, have pain when deep breathing or coughing and are gaining weight, you need to see your GP and may need a

chest x-ray to check for this.

Another complication is a chest infection. If you are coughing a lot, or coughing up discoloured phlegm, you need to see your GP as you may require antibiotics. Support your chest when coughing, and also report any increase in pain around the wound.

If you become increasingly more short of breath, or are short of breath at rest, you need to see your GP promptly.

**If you are so short of breath you cannot talk freely, you need to ring an ambulance, dial 111.**

## Mood variations

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It is normal to go through rough patches after your surgery. You may feel up or down with your moods, continually low in mood or become stressed by little things that would not normally worry you. You could feel bored, frustrated, anxious, tearful, irritable or angry and this may affect your confidence.

Everyone is so different, and these mood difficulties can go on for weeks or even a few months. They are normal and can happen for no apparent reason. It does not mean things are going wrong and can just be a delayed reaction to your surgery. Don't be hard on yourself or discouraged by this Your mood will usually improve slowly.

### Signs of low mood include

- Not wanting to get up and going in the morning.
- Not attending to hygiene care.
- Reluctance to go for walks.
- Poor appetite.
- Not wanting to be around people.
- Your support person may comment on your mood.



If you experience any of the above and you feel down day after day, it may be worth talking to your General Practitioner, as people can become depressed and need treatment.

You may find it helps to talk to a family member or close friend but be wary of any advice or suggestions that you feel are not right for you.

If at any time you feel the need to talk to someone other than family /friends, there is a Mental Health support phone number, **0800 920 092** which you can ring any time, night or day.

You may be forgetful and find your mind wanders when having a conversation.

Also, you may find your concentration is not as good as before, when watching the TV or reading. These may be influenced by lack of sleep, anxiety and memories of what you have been through. This is very normal after any big operation and generally improves with time.

As you recover your strength and energy, your confidence will improve, and you will find you are more able to cope with getting through each day.

Getting back to your normal routines, planning different activities, going for your regular walks and going on outings, all help you to feel you are returning to normal.

However, it is important to go at your own pace, and have some rest in between activities so you don't get overtired.

Focus on celebrating your health, living well, and be encouraged by the fact that little changes can make a huge difference.

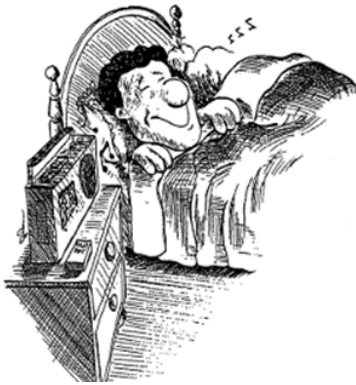
## Suggestions for managing stress

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- Set aside some time during the day to practice relaxation and schedule it into your daily activities.
- Allow extra time if you feel particularly tense.
- Try to cut down on over-crowded schedules.
- Plan and space activities.
- Review your use of time away from your job.
- Make time for fun and relaxation.
- Accept and ask for help.
- Resist planning to do more than you can handle.
- Divide your workload.
- Take one thing at a time.
- Look at the expectations you have of yourself, are these reasonable for your time and your abilities?
- Learn to say "NO".

## Sleeping patterns

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It is very common for people to sleep poorly while in hospital and for this to continue once they go home. This includes having trouble getting to sleep, sleeping for short periods, waking during the night, and having bad dreams and nightmares. This should improve over the next month or two but can persist for many months.

If sleeping is disturbed by pain or discomfort, you need to ensure you are taking regular Paracetamol/Panadol and if this is not enough then talk to your doctor about getting stronger pain relief.

It may also be useful to try sleeping in different positions. It is okay for you to lie in whatever position you find comfortable. If lying on your side, try using a pillow in front of you to support your breast bone and upper arm.

Sleeping more upright on one or more pillows may also help you to be more comfortable.

Relaxation techniques and relaxing music can also help some people.

## Tiredness and fatigue

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Most people will have a lowered blood haemoglobin level (anaemia) which can contribute to feelings of tiredness and fatigue. Eating iron rich foods can help improve your iron level and over time your body will build up your haemoglobin stores again.

When doing anything, pace yourself, take things slowly, and have a rest in between activities. Adequate rest periods are essential to your recovery but avoid long periods of inactivity as this will result in increased body discomfort and a reduction in blood circulation to body tissues.

Plan one day at a time, listen to your body and progress at your own rate. Don't push yourself or compare yourself to others; it takes time to regain your strength. Gradually resume your daily activities by doing small amounts of various activities at first rather than trying to achieve all at once. Your confidence will increase as your energy increases and you are able to do more.

## Partner/support person information

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- Caring for someone who has had heart surgery is a positive way of being there for your loved one. However, being a support person can mean that your daily routines, your work and social life may be disrupted. It can also be a time when you naturally have lots of worries and concerns.
- These changes in your routine can affect things like your sleep and your appetite and may result in you feeling run down and tired.

- Sometimes, the stress of supporting someone, may cause you to be less tolerant, or more irritable in mood. You may even feel tearful, or down in the dumps.
- Some may experience a sense of feeling that things are out of their control and that they need to be strong for the other person. It is important to share your feelings with one another and not have unrealistic expectations. If you have another back up support person, it can be helpful for you to have some time out or extra rest.
- During the different stages of recovery, you may find that the person you are supporting will naturally experience a whole range of emotions, especially if they are in pain, tired or bored. It is not because they are upset with you.
- Take care of yourself and don't be reluctant to accept help when it is offered.

## Visitors

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Short visits are advisable for the first one to two weeks at home. Visitors mean well but can be tiring and so can a lot of phone calls.

Let friends and family know that rest is an important part of your recovery. Do not be afraid to excuse yourself from visitors when you feel tired and in need of rest.

People may not realise how tired you are until you tell them.

## Altered vision

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Visual changes such as blurred or double vision are also common. The cause of this is mixed and uncertain. However, after a few weeks or months your vision usually returns to normal.

Do not get your glasses adjusted in the early months of your recovery.

## Appetite

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It is common to experience a loss of appetite and to experience nausea (or feeling sick) in the first few weeks after your surgery. Ginger ale or other ginger products may help relieve nausea.

Many notice that their sense of taste has been affected or is even absent. You may also experience a metallic taste in their mouth.

It is important to eat something, even if you are not feeling hungry. To begin with, small frequent snacks may be easier to manage than large meals. Try to drink plenty of fluids.

Foods high in protein will help with healing. Your appetite should improve as you begin to recover.

If you are feeling nauseated most of the time, talk to your GP.

## Elimination

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Constipation is very common following a big operation and can be due to inactivity, poor fluid intake, lack of appetite and dietary changes since your surgery. Some of the medications you are taking can contribute to constipation.

### Some suggestions to reduce constipation are:

- Regular exercise.
- Plenty of water.
- Include in your diet: bran, grains, fruit and vegetables (kiwifruit and prunes are good!).
- Kiwi Crush is readily available from the supermarket, laxatives can be bought at your pharmacy or talk to your GP.

A small number of people also have urinary problems. If you experience any urinary frequency or burning on passing urine you may have a urinary infection and need to talk to your GP about this.

Also, if you are having trouble passing urine, can only pass small amounts at a time and feel your lower abdomen is becoming distended and uncomfortable, you may have urinary retention and will need to see a doctor.

## Protection against infection - Valve Surgery

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It is very important to protect yourself against infection if you have undergone valve repair or valve replacement surgery.

This puts you at risk of getting an infection called “Bacterial Endocarditis” which occurs when bacteria pass through the blood stream, settle on the valve and damage it.

Make sure you tell your dentist, or any doctors caring for you, that you have had valve surgery, because antibiotics should be given before and after any surgical procedures or any dental work. This includes routine dental cleaning and you should have a dental check up every nine months.

### **You should see your GP if you have any of the following:**

- Infected cuts.
- Boils.
- Sore throats and heavy colds.
- Infections in the mouth.
- Diarrhoea.
- Burning upon passing urine.
- Fever or sweats, especially at night.
- General feeling of being unwell or flu like symptoms that persist.
- Swelling in feet, legs or hands.

**By doing so, you can help protect your valve against infection.**

**We recommend that you apply for a Medic Alert Bracelet if you have had valve replacement surgery.**

## Warfarin

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This is an anticoagulant that thins the blood and is given if you have a mechanical valve, to protect against the formation of clots on that new valve.

You should have received written information and the little red Warfarin book, and talked to the Pharmacist about Warfarin.

You need to remember what your INR blood result should be (it varies depending on your valve surgery), and if your blood result is not within that range, talk to your GP about the need to change your warfarin dose.

If you still feel unsure about managing and understanding warfarin use, a Pharmacist can visit you at home and assist with this as well as help with understanding all your medication. Ask your GP for a referral (*see pamphlet for Medication Management service in your rehab folder*).

## When to call your doctor

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If you experience any of the following, you should report them to your GP:

- Persistent rapid, irregular pulse rate or palpitations – if this is associated with shortness of breath or dizziness lasting longer than 10 minutes, call an ambulance on 111.
- Shortness of breath that goes on after an activity has stopped or that occurs at rest or that is getting worse day by day.
- Weight gain of 1.5 to 2 kgs in 2-3 days, especially if associated with shortness of breath, ankle or abdominal swelling.
- Any high temperature.
- Any flu like symptoms/feelings such as aches, chills, fever, loss of appetite or fatigue that persist.
- New signs of swelling, redness or discharge from your wounds.
- Angina symptoms like those you had before your surgery.
- Pain in your chest, neck or shoulders that is worse when taking a deep breath.
- Severe bruising (for no known reason) or bleeding.



## Decision making

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Wait until you have sufficiently recovered before making big decisions about lifestyle, work, social activities or hobbies. Most people are able to return to all their previous activities.

It is advisable not to sign any legal documents for at least a month.

## Returning to exercise and activity. Is it safe to exercise?

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Exercise is a very important part of your recovery. If you do not exercise regularly, and remain inactive, you are more likely to suffer from lung infections and fluid in and around the lung.

Also, inactivity compromises wound healing which can lead to complications.

Walking should be the main cardiovascular exercise during your recovery in the first 12 weeks. Slowly introduce other activities such as swimming and biking as you feel up to them.

## Resuming sexual activity

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Sexual activity can be resumed when you feel comfortable and well rested, which is generally 3-4 weeks after discharge from hospital.

The amount of energy needed for sexual activity is about the same as walking up two flights of stairs briskly, so it will not unduly affect your heart.

You will need to find a position that is comfortable and doesn't place any stress on your chest or restrict your breathing. Avoid positions where your arms are supporting your body weight.

If you normally take Cialis, Viagra or any other medications to help with sex, please check with your GP that these medications are still safe to take.

Having a low sex drive after surgery is not uncommon, but it may be something to discuss with your partner or GP.

## Driving

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The Land Transport authority guidelines are:

You should not use class 1- 6 license (car and motorbike) for 4 weeks post-surgery. Classes 2,3,4,5 and endorsements PV I or O, the guidelines for medical fitness to drive is recommended at 3 months.

In-order to resume driving:

- Your eyesight needs to be good.
- You need to be able to move freely without pain or dizziness and feel strong enough to manage driving.
- You need to be able to concentrate fully and be confident in your driving ability and decision making.

It is also worth asking your support person if he/she feels you are ready and safe to drive.

Remember that during your recovery your reaction time and concentration will be slowed due to weakness, fatigue or medication. Your neck and shoulders may be stiff for a few weeks after surgery and this may restrict your ability to drive safely. If you don't feel well, don't drive.

You must wear a seatbelt to protect your sternum. If this is uncomfortable, try placing a small pillow or piece of foam between your chest and the seat belt.

It is advisable to contact your insurance company before you start driving to check their policy on driving after heart surgery.

## When to return to work

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Returning to work is usually dependant on the nature of the work. If it involves heavy lifting, pushing or pulling, the sternum will need to be stable; this will take six to 12 weeks.

If the work is mainly sedentary, then you can return to work at any time. However, bear in mind that any major operation does shake up the body. Decision making may not be as good as it could be and especially after complex operations on the cardiac bypass machine, some thought processes may be slower to return to normal such as those using a lot of calculations e.g. multiplication of numbers etc.

Regardless of the nature or work, returning to work is never straight forward. Just like going on a long holiday, returning to work can be difficult and one has to be "match fit". It is advisable to start in short time spans, progressing to a full day. How your body feels, is your best guide to how you are performing.

## Cardiac rehabilitation

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While you are in hospital you will be seen by a Cardiac Rehabilitation Nurse Specialist. You and your family/supporters will be given written and verbal information about your condition and your recovery. We work closely with you to provide support and information in a way that you understand.

Several weeks after your discharge from hospital you will receive a letter from us inviting you to attend Cardiac Rehabilitation. This is an important part of your recovery and is designed to help you be as healthy as possible, to reduce your risk of lung complications. This will also help you get back to normal.

We offer ongoing Heart Health and Wellness seminars for you and your family to attend. There is no cost. Some sessions are in the daytime, and for those who cannot attend during the day we also run evening Heart Health and Wellness seminars. We cover a range of topics all aimed at helping you to improve and maintain your overall health. We have a variety of speakers who are all very well versed in their topics.

For patients who don't live in Christchurch, we will refer you to your nearest Cardiac Rehabilitation Programme to ensure that you don't miss out on this important part of your recovery.



## Looking after your sternum/breastbone

In 6 weeks - the soft tissues, muscles, connective tissue, grafts, skin, blood vessels etc will be 80% healed. You will not be able to pull them apart.

If, however you do an activity that causes you to feel a strong pull across your chest, stop the activity and try again a few days later. Let your pain/discomfort guide you.

It can take up to 6 months or more to fully heal, so undertaking heavy work including pushing/pulling heavy weights causes risk to the healing of your sternum.

**Move in your tube.**

## Exercises following heart surgery

### Goal:

To restore full range of movement to the body and to improve posture.

### Remember:

Should any of these exercises cause pain, do not continue and consult your physiotherapist.

### At Home:

Do these exercises twice daily. Repeat each 5-10 times. Continue to do these exercises for eight weeks.

#### Exercise 1

1. Sit or stand with good posture.
2. Keeping your face forward, tip your ear towards your right shoulder.
3. Repeat on the left side.



#### Exercise 2

1. Sit or stand with good posture.
2. Turn your head to the right side.
3. Repeat to the left side.



#### Exercise 3

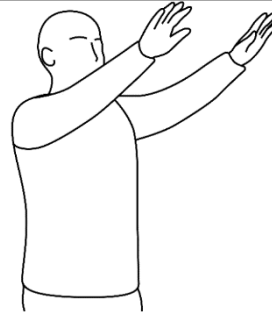
4. Sit or stand with good posture.
5. Raise both arms and lower both arms.
6. Repeat.



## Cardiac Surgery – looking after your sternum / breastbone

Use pain and discomfort to guide safety for all activities. Ensure regular pain relief.

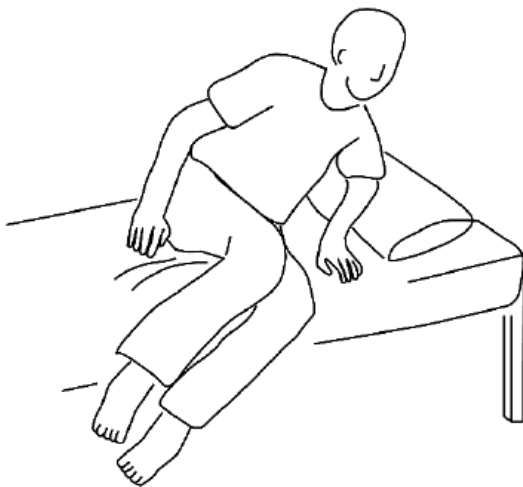
- Use both arms and keep close to the body when
  - ✓ Lifting light objects.
  - ✓ Sitting out of bed.
  - ✓ Standing up from a chair.



- Avoid pushing or pulling with one arm.
- Use of the arms for other tasks is permitted but keep them close to the body.
- Avoid stretching both arms backwards at the same time.
- When coughing, support sternum.



- When getting out of bed, roll onto side, ease legs over the edge of the bed and sit up from lying position.



Activities of daily living		
Activity stage	Home and Garden Activities	Leisure and Recreation Activities
<b>First Week at Home</b>		
<ul style="list-style-type: none"> <li>Start your walking programme as prescribed by Physio.</li> <li>Take frequent rests - not too many visitors.</li> </ul>	<ul style="list-style-type: none"> <li>Shower and dress each day.</li> <li>Washing of hair can be done at any time.</li> </ul>	<ul style="list-style-type: none"> <li>Sedentary hobbies - reading, cards, television, stamps, computer.</li> </ul>
<b>Second to Fourth Week at Home</b>		
<ul style="list-style-type: none"> <li>Work at bench or table height.</li> <li>Avoid standing for a long time.</li> <li>Take your time.</li> </ul>	<ul style="list-style-type: none"> <li>Simple meal preparation.</li> <li>Washing and drying dishes.</li> <li>Dusting.</li> <li>Use washing machine and dryer.</li> <li>Handwashing and hanging light items of clothing.</li> <li>Ironing small articles, short period.</li> <li>Pull up bedclothes.</li> <li>Handheld hosing of garden.</li> <li>Picking of flowers.</li> <li>Shopping with company, off peak.</li> </ul>	<p>Continue walking programme.</p> <p><b>After 4 weeks</b></p> <ul style="list-style-type: none"> <li>Golf putting (practice only).</li> <li>Indoor bowls (no competition).</li> <li>Darts.</li> </ul>
<b>Fourth to Sixth Week at Home</b>		
<ul style="list-style-type: none"> <li>Gradually include reaching and bending jobs.</li> <li>Have someone else carry parcels and groceries.</li> <li>Commence all activities in moderation and gradually upgrade.</li> </ul>	<ul style="list-style-type: none"> <li>Bed making.</li> <li>Car washing.</li> <li>Window cleaning.</li> <li>Leaf raking.</li> <li>Pruning small shrubs.</li> <li>Weeding (sitting rather than standing and bending).</li> <li>Driving short distances.</li> </ul>	<ul style="list-style-type: none"> <li>Light fishing from a pier.</li> <li>Keep up walking programme.</li> </ul>
<b>Sixth to Eighth Week at Home</b>		
<p>Continue to gradually upgrade activities commenced in previous stages.</p>	<ul style="list-style-type: none"> <li>Vacuuming - small areas.</li> <li>Gradually resume light digging and hoeing.</li> <li>Hang out heavier washing such as sheets and towels.</li> <li>Lawn mowing after 8 weeks.</li> </ul>	<ul style="list-style-type: none"> <li>Darts/comparable arm games.</li> <li>Lawn bowls.</li> <li>Table tennis - social.</li> <li>Keep walking.</li> </ul> <p><b>After twelve weeks</b></p> <ul style="list-style-type: none"> <li>Fishing from a boat.</li> <li>Jogging.</li> <li>Squash or tennis.</li> <li>Rowing or canoeing.</li> <li>Golf.</li> </ul>

## Walking programme

*(This programme is a guideline only, so you may feel you are able to do more than the recommended amount)*

To get the benefits of walking it is important that you aim to walk on most days. Aim to exercise at a moderate intensity. Shortness of breath is a normal response to exercise, but you should still be able to 'walk and talk'.

As your fitness improves, you can make your exercise harder by increasing the time or distance of your walk. Take hills and stairs gradually at first.

Make a note of how you feel after each day's walk. Progress or ease off as you feel necessary. You can review your program with the physiotherapist at any time during your rehabilitation.

### Walking programme example

Week	Minimum time (minutes)	Times per day	Pace
1	5-10	2	Stroll
2	10-15	2	Comfortable
3	15-20	2	Steady
4	20-25	1-2	Stride Out
5	25-30	1-2	Brisk
6	30-40+	1	Stride Out/Brisk

## Walking guidelines

Use the following scale to indicate how hard you feel the exercise is. You should be aiming to exercise at around the moderate to strong (3-6) levels of the scale.

### Rate of perceived exertion scale



## Monitor your walking

In order, to recover the body needs to be active. Your body will be de-conditioned and muscle mass needs to rebuild. Also, the lungs need regular activity to fully expand.

### Ask yourself:

- Can I walk and talk at the same time?
- Do I feel that I have recovered 30 minutes after exercise?

### For safe walking, remember to:

- Start and finish each walk slowly.
- Wear comfortable clothing suitable for the weather including shoes which provide good foot support.
- Use the rate of perceived exertion scale as a guide to how hard you are working.





