

# Physiotherapy following Cardiac Surgery



**ST VINCENT'S  
PRIVATE HOSPITAL**  
NORTHSIDE

A FACILITY OF ST VINCENT'S HEALTH AUSTRALIA

This information is a general guide only.

Instructions and specific exercises may vary depending on your specific surgery and situation. Your surgeon or physiotherapist will inform you of any further instructions or limitations.

Please ask if there is anything you are unsure about.

Your physiotherapist: \_\_\_\_\_

Phone: 07 **3326 3000**    Pager no. **0104**

Alternative contact: \_\_\_\_\_



Please contact your nurse if you require an interpreter.

# Physiotherapy following Cardiac Surgery

## Role of Physiotherapy after surgery

The physiotherapist plays an important role in the team approach during the recovery phase after your operation. Your physiotherapist will visit you once you have been admitted to hospital to explain their role in your care and ensure you understand the importance of your participation in your own recovery. Emphasis will be placed on prevention of complications such as chest infection, lung collapse or blood clots and pressure injury, hence the importance of encouraging early mobilisation, deep breathing and supported coughing.

Demonstration will be provided at this pre-operative visit of getting in/out of bed appropriately, getting in/out of a chair safely and correctly, using the Triflow (a breathing exercise device) and supported coughing using a chest support/pillow.

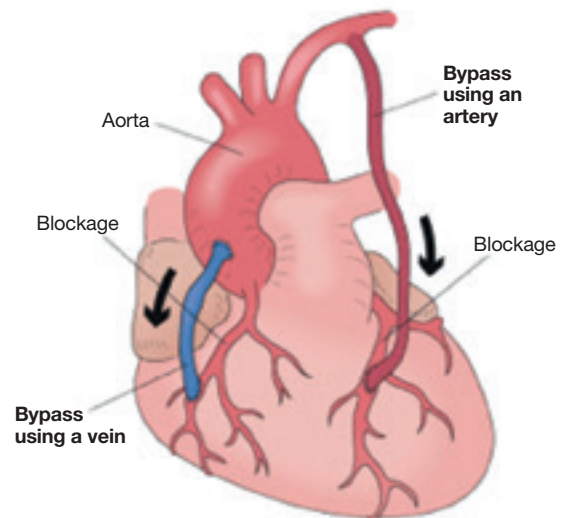
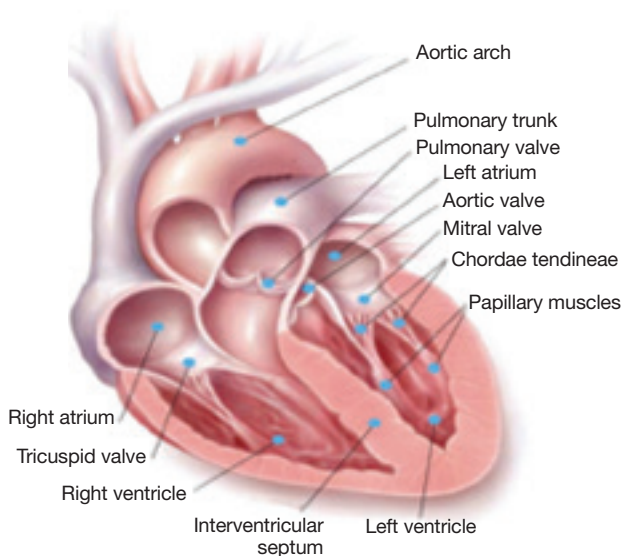
If you are female and having a sternotomy (an incision through your breastbone), your physiotherapist will fit you with a front-opening bra at your pre-operative Physiotherapy consultation.

## Commencing rehabilitation

Following your surgery, whilst you are in the Intensive Care Unit, your physiotherapist will commence your rehabilitation. You will be encouraged to take deep breaths often, have a short walk, perform gentle arm and leg exercises and sit out of bed. This program will be graduated throughout your hospital stay as you continue to recover.

Your physiotherapist will continue to visit during your stay and then prepare you for your discharge home. Prior to discharge, you may also practice going up and down a flight of stairs.

You will continue your **Home Exercise Program** (see page 2) and **Walking Program** (see page 9) on discharge and will be encouraged to attend our **Cardiac Rehabilitation Program** or one in your local area.



# Ensuring a smooth recovery

To ensure a smooth recovery at each stage of your rehabilitation, it is important that pain is kept under control and to a minimum. This will assist in your improved ability to take deep breaths and move comfortably as well as perform the exercises required. Coughing is important to ensure that your lungs remain clear by assisting sputum removal. Early mobilisation will help maintain your lungs, strength and independence.

You are encouraged to actively participate in your recovery as this will enhance your rehabilitation and assist in getting you home sooner.

## How to move safely



- On rising from a chair, ensure you do not use your arms and that you support your chest. Lean forward from your hips, then push up strongly using your legs.

## Exercises: *immediate post operative*

These exercises are the basis of your Hospital and Home Program and may be modified as necessary to suit your individual needs.

At any time during your hospital stay and especially whilst performing your exercises, it is important to notify your nurse or physiotherapist if you have any concerns. This could include increased shortness of breath, light-headedness, excessive pain, nausea or excessive fatigue.

***If you experience sternal 'clicking' please cease your exercises and notify your physiotherapist or nurse immediately. It can be normal for your neck and/or shoulders to 'click' during your recovery but it is not normal for your breastbone to be 'clicking'.***

### ● Relaxed deep breathing

- Relax your shoulders and take a slow, deep breath in.
- Hold for three (3) seconds, and then slowly breathe out.
- After five (5) deep breaths have a strong cough.
- Repeat hourly when awake for the first two (2) days post surgery.



### ● Triflow – Incentive Spirometry (*to assist in getting your lungs to fully expand*)

- You will be provided with a Triflow device. It can be used in addition to relaxed deep breathing exercises.
- Breathe in through the mouthpiece and hold the ball/balls up for as long as possible.
- Repeat five (5) times every hour whilst in hospital and then 4-5 times per day on discharge for 2-4 weeks.



## Exercises: *immediate post operative*

### ● **Foot and ankle pumps** *(to help circulation and prevent blood clots)*

- Move your feet up and down from the ankles.
- Repeat ten (10) times every hour when awake.



### ● **Bending your hip and knee** *(to maintain circulation and flexibility)*

- Lying on your back, bend your hip and knee up and down the bed.
- Repeat several times per day 5-10 times each leg.



## Exercises: *post operative*

The following exercises should be performed in the initial four (4) weeks after your surgery.

These exercises are aimed at maintaining shoulder and spine range of movement during the early healing phase of your recovery.

They should be performed within your comfort range – initially five (5) repetitions of each increasing to ten (10) repetitions of each over the coming days.

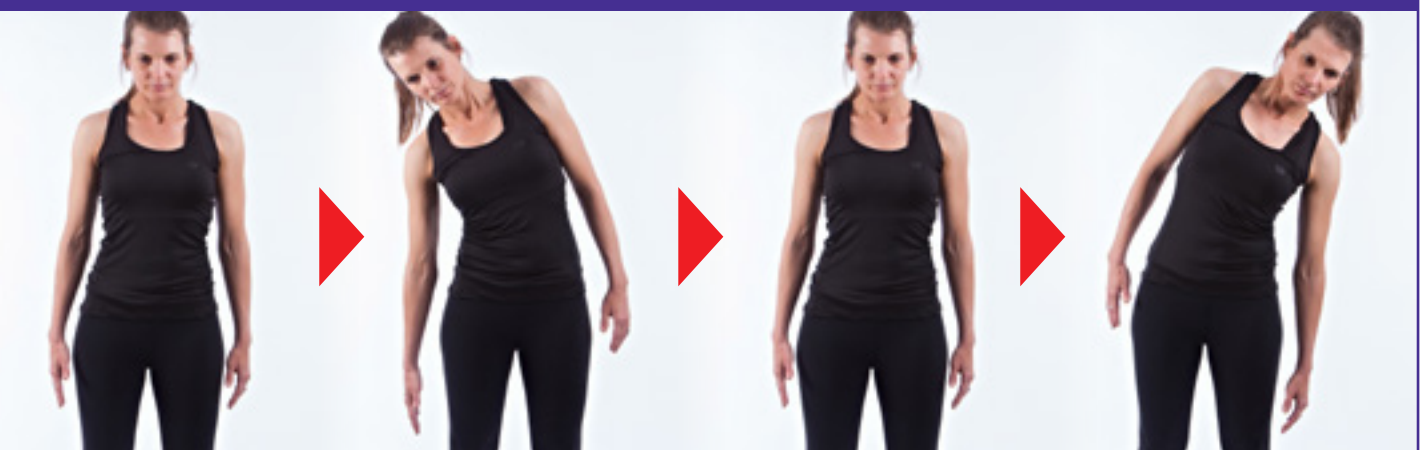
They should be performed initially three (3) times per day, reducing to two (2) times a day and then once (1) per day as you are feeling more supple and less restricted by your incision over the first four (4) weeks of recovery.

### ● Forward arm raises

- Stand with your feet comfortably apart and raise both arms forward and up above your head.
- As you elevate your arms, take a deep breath. Then breathe out as you lower your arms back down by your side.
- Repeat five (5) times initially then increase to ten (10) times as able.
- This exercise may also be performed while sitting.



### ● Trunk stretches



- Stand with your feet comfortably apart and gently slide your right hand down your right leg.
- Reverse the procedure until upright and then repeat with your left hand down your left leg.
- This should be done smoothly and without causing discomfort.
- Repeat five (5) times to each side initially and then increase to ten (10) times as able.

## Exercises: *post operative* (continued)

### ● Side arm raises



- Stand with your feet comfortably apart and raise both arms sideways above your head.
- As you elevate your arms, take a deep breath. Then breathe out as you lower your arms back down by your side.
- Repeat five (5) times then increase to ten (10) times as able.
- This exercise may also be performed while sitting.

### ● Wall push-ups

*(This exercise will help reduce rounded shoulders, pain and stiffness by working the upper chest)*

- Stand with your feet comfortably apart and about 18" (45cm) away from the wall with your hands on the wall at shoulder level.
- Slowly lower your body closer to the wall and then gently push away.
- If you are straining as you push away, move closer to the wall.
- Breathe normally.
- Repeat five (5) times initially and then increase to ten (10) times as able.





The following exercises are to maintain lower limb strength and tone in the early phase of your recovery.

They are to be performed standing at a rail or bench for balance and support.

Commence each exercise with five (5) repetitions and then increase to ten (10) repetitions as able.

### ● Marching on the spot

- Gently lift each leg marching on the spot 5-10 times.



### ● Heel raises

- Raise yourself up on to your toes and then lower back to the ground 5-10 times.



### ● Squats

- With weight evenly balanced between both legs, gently bend your knees into a mini squat position.
- Hold this position momentarily, then slowly raise yourself up using your legs.
- Do not heavily lean on, or pull up with your arms.
- Repeat 5-10 times.



# Posture

During your recovery it is essential to maintain good, upright posture whilst sitting and standing so that your breastbone mends properly and you do not end up with rounded, stiff shoulders.

Adequate pain relief is essential in order to enable good posture in each stage of the recovery process. It is also important that you do not lie on your side or front for eight (8) weeks following surgery to allow proper healing of the breastbone. Remember, you need to allow three (3) months for your breastbone (sternum) to heal adequately.

If you had a minimally invasive surgical incision rather than a sternotomy, lying/sleeping positions are limited only by comfort.

Good posture involves standing with the head squarely over the shoulders, with shoulders back, chest up and out, back straight and stomach and chin tucked in. Continual bad posture will lead to neck, back and shoulder pain.

If your neck is stiff and sore, these few exercises may assist in relieving some of your symptoms:

- Shoulder shrugging
- Shoulder circling
- Gentle neck rotation to the left and the right
- Gentle bending head forwards and backwards.

***Whilst in hospital, your nurse or physiotherapist will make a chest pillow for you to support yourself whilst coughing and to use whilst getting in/out of bed etc.***

***It is advisable to also use a chest pillow at home for approximately six (6) weeks and have a second one specifically for the car to act as a padding between you and your seatbelt.***

## Good posture



## Gentle neck rotation to the left and the right



## Gentle bending head forwards and backwards



# Walking Program

Walking is the exercise we encourage you to perform at each stage of your recovery to improve your cardiovascular fitness.

On discharge from hospital, it is important that you commence a walking program to enhance your sense of wellbeing, improve your endurance and fitness, improve your sleep patterns, reduce your stress levels and improve your energy levels. Walking also helps reduce other risk factors such as high blood pressure, high cholesterol and being overweight.

You must build exercise tolerance slowly and within your own comfort range so listen to your body. The aim is to achieve at least 20-30 minutes of continuous exercise each day until you see your surgeon and then 3-4 times per week as part of a lifelong maintenance program.

## A few general tips

- Walk on even, flat ground, and wear comfortable, supportive shoes/clothing.
- Walk at a pace where you can comfortably walk and talk. It should feel 'fairly light' to 'somewhat hard'. Any more than this and you are working too hard.
- Wait at least one hour after a meal.
- Avoid walking in the hottest or coldest part of the day.

On discharge from hospital, you should give yourself a couple of days to settle in and perform short walks like the ones you performed in hospital.

Start with five (5) minute walks two (2) times per day and increase to ten (10) minute walks daily by the end of the first week at home.

## A guide to improving your fitness

The table below is a guide to assist you with improving your fitness over the weeks following your surgery. This is based on the recommendations of the National Heart Foundation.

*Remember it is a guide and you should perform it within your own limitations and comfort range.*

If walking is difficult, other alternatives such as exercise in the water, cycling etc will be discussed with your physiotherapist and doctor.

Week	Minimum time (minutes)	Times per day	Pace
1	5-10	2	Stroll
2	10-15	2	Fairly light
3	15-20	2	Fairly light
4	20-25	1-2	Fairly light/ Somewhat hard
5	25-30	1-2	Fairly light/ Somewhat hard
6	30	1-2	Fairly light/ Somewhat hard

## Cardiac rehabilitation

Whilst in hospital, your physiotherapist will see you each day and discuss your gradual return to activity and exercise program before your discharge home. It is recommended that you attend cardiac rehabilitation as the next phase in your recovery from hospital. Referral will be made by the hospital to your local facility.









# St Vincent's Private Hospital Northside

627 Rode Road, Chermside QLD 4032

Phone: 07 3326 3000

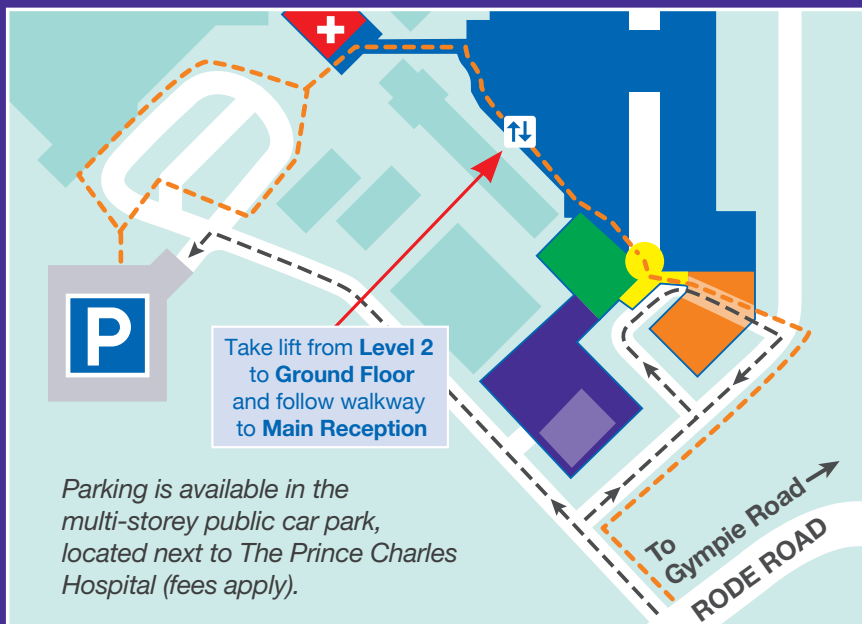
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*Parking is available in the multi-storey public car park, located next to The Prince Charles Hospital (fees apply).*

- |   |   |
|---|---|
|  St Vincent's Private Hospital Northside     |  St Vincent's Northside Education Centre |
|  Main Reception/drop-off zone                | <b>Level 1</b>  |
|  St Vincent's Northside Medical Centre       | - Breast Health Centre  |
|  Mary Aikenhead Building                     | - Consulting Suites   |
|  St Vincent's Northside Breast Health Centre | <b>Ground Floor</b>   |
|   | - Education Training Centre   |
|   | <b>Lower Ground Floor</b>   |
|   | - Executive Suites  |
- 
- |  |   |
|--|---|
|  Brisbane Northside Private Emergency |  Multi-storey public carpark |
|  The Prince Charles Hospital          |  Vehicular route             |
|  |  Pedestrian route            |



Developed in consultation with our consumers (May 2017)

UNDER THE STEWARDSHIP OF MARY AIKENHEAD MINISTRIES