

Department of  
**Occupational Therapy**

**Functional Training to Better Carry Out Activities  
of Daily Living (ADLs) for Individuals with  
Shortness of Breath**



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# Introduction

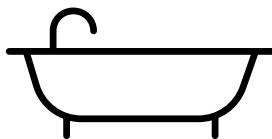
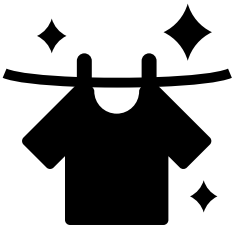
**Dyspnoea or Shortness of Breath (SOB)** can be caused by medical conditions such as:

- Chronic Obstructive Pulmonary Disease (COPD)
- Asthma

SOB can limit your physical activity and your ability to perform meaningful daily activities. This is especially true for activities that require repetitive arm movements or continuous reaching over and above your head.

SOB may affect these activities of daily living (ADL) :

1. Showering
2. Cooking
3. Hanging laundry
4. Keeping and organising household items
5. Cleaning with a broom or mop



This booklet is designed to support your rehabilitation journey and improve your ability to perform daily activities.

# Benefits of Upper Limb Exercises

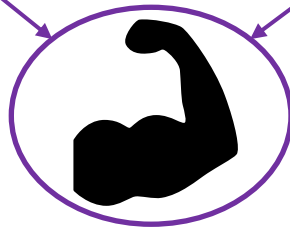
Upper limb (UL) exercises can help to improve your muscle endurance and strength.

This can help you to:

- better handle symptoms caused by diseases
- improve your performance during ADL

Strengthen your UL muscles and other muscles needed for breathing

Increase your activity tolerance/endurance



- ↓
- ✓ Decrease in dyspnoea and feeling of tiredness when performing ADL

- ↓
- ✓ Increase in ability and ease when performing ADL tasks

# Using This Booklet Safely

## What Are Some Normal Symptoms?

While performing UL exercises, it is normal to feel:

- Mild shortness of breath
- Slight muscle aches in your upper limbs

## What Are Abnormal Symptoms?

- Persistent discomfort or heavy breathing that does not stop with rest
- Moderate to severe muscle pain
- Chest pain
- Dizziness or nausea (feeling sick and wanting to vomit)
- Cold sweat and clammy (wet) skin



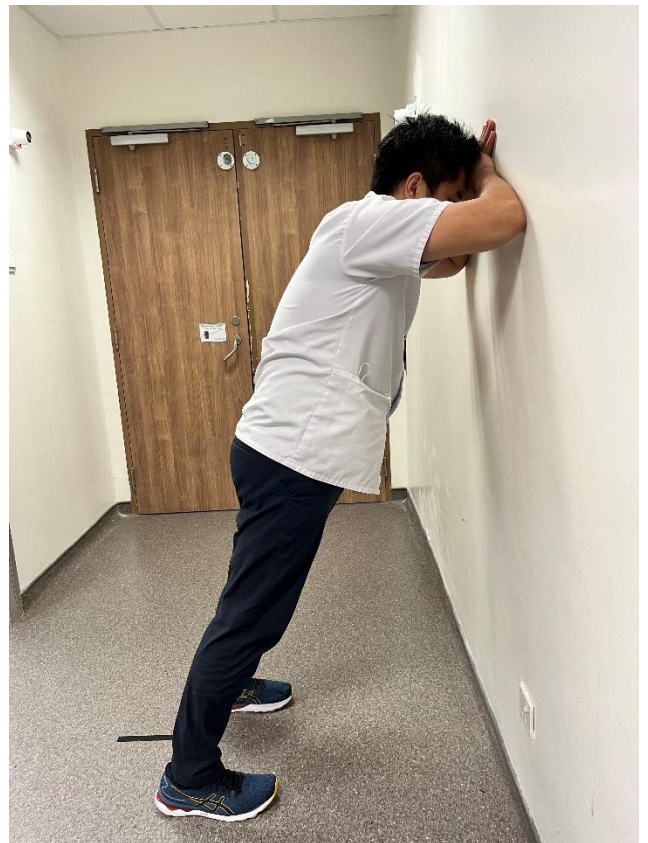
If you develop one or more abnormal symptoms before, during or after the exercises, **please stop your exercise immediately**. Please seek medical advice from qualified healthcare professionals as necessary.

# Using This Booklet Safely

## Exercise Tips for You

Perform the following strategies to reduce breathlessness during your exercises:

- Deep breathing
- Adopt a forward leaning posture in a sitting or standing position



# Using This Booklet Safely

## Exercise Tips for You

While performing your exercises, keep to an intensity level of 2 to 3 on the RPE Scale.

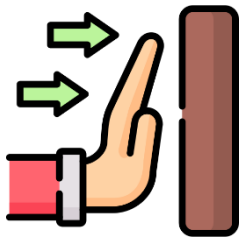
### 1- 10 Borg Rating of Perceived Exertion (RPE) Scale

0	Rest
1	Really easy
2	Easy
3	Moderate
4	Sort of hard
5	Hard
6	
7	Really hard
8	
9	Really, really hard
10	Maximal: just like in your hardest race

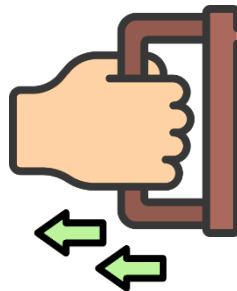
(Adapted from Rating of perceived exertion: Borg scales, The Heart Education Rehabilitation Toolkit, by The National Heart Foundation of Australia)

# Upper Limb Training

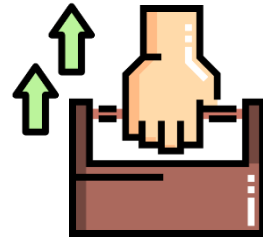
The actions that you will be practising are related to UL movements that you may require in your daily activities:



Pushing



Pulling



Lifting

- By performing these movements, you may be able to perform your ADLs with lesser effort and more ease
- Kindly perform the exercises following the instructions provided, or as instructed by your Occupational Therapist
- Please approach your therapists for advice if you are unsure of any instructions



# Upper Limb Training

## Tips for You Before Starting Your Training

### 1) Use of Weights

- Perform the exercises without any weights in your hand first
- You may gradually increase the difficulty of the exercises by holding 500ml water bottles with different amounts of water inside
- Increase the bottle weight gradually by increasing the water content, in this sequence:  
25% → 50% → 75% → 100%

### 2) Positioning

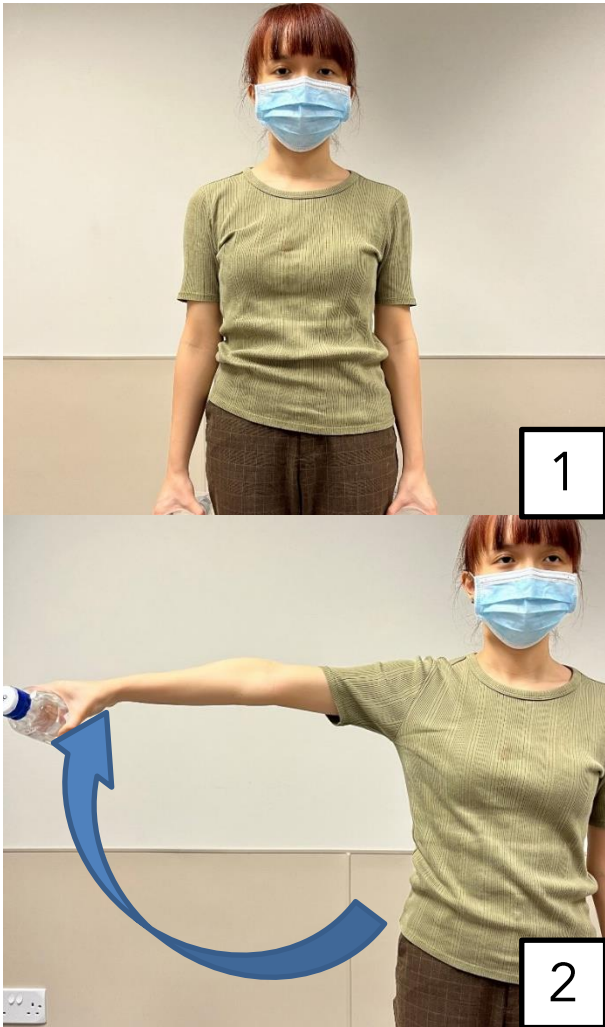
- You should perform the exercises in a sitting position first
- You may gradually start to perform some of the exercises in a standing position to increase the difficulty level

### 3) Breathing

- Remember to breath throughout the exercises and at a steady pace
- Avoid holding your breath at any part of the exercises

# Shoulder Exercises

## 1) Side Arm Lift



- i. Start with your arms next to your hips.
- ii. Lift your RIGHT arm up sideways, all the way until your arm is in a straight line together with your shoulders. Keep your palm faced down throughout the exercise.
- iii. Slowly bring your arm back down to your side.
- iv. Repeat this with your LEFT arm.
- v. Avoid bending your elbows throughout the exercise.

Repeat \_\_\_ times for each arm

Do \_\_\_ sets per day

# Shoulder Exercises

## 2) Front Arm Lift



- i. Start with your arms next to your hips.
- ii. Lift your RIGHT arm up in front of your hips, all the way until your arm is in front of you. Your thumb should be facing upwards.
- iii. Slowly bring your arm back down to your side.
- iv. Repeat this with your LEFT arm.



Repeat \_\_\_ times for each arm

Do \_\_\_ sets per day

# Shoulder Exercises

## 3) Shoulder Press



- i. Start with your RIGHT wrist at your ear level.
- ii. Straighten your arm towards the ceiling.
- iii. Slowly return your arm to the starting position.
- iv. Repeat this with your LEFT arm to complete one repetition.



Repeat \_\_\_ times for each arm

Do \_\_\_ sets per day



Improving your shoulder strength has been proven to reduce SOB and tiredness during ADLs!

# Arm Exercises

## 1) Elbow Forward Bend



- i. Start with your arms next to your hips.
- ii. Bend your **RIGHT** elbow, bringing your hand upward and towards your face.
- iii. Gradually straighten your arm back to the starting position.
- iv. Repeat this with your **LEFT** arm.

Repeat \_\_\_ times for each arm

Do \_\_\_ sets per day

# Arm Exercises

## 2) Elbow Backbend



- i. Start with your RIGHT elbow slightly bent and hand at your hips.
- ii. Straighten your elbow and reach backwards. Keep your thumb facing downwards.
- iii. Slowly return your arm to the starting position.
- iv. Repeat this with your LEFT arm.

Repeat \_\_\_ times for each arm  
Do \_\_\_ sets per day

# Arm Exercises

## 3) Arm Pull



- i. Start with your RIGHT arm lifted at shoulder level, palm facing the floor.
- ii. Bend your elbow, pulling your hand towards yourself.
- iii. Gradually straighten your elbow, pushing forward to return to the starting position.
- iv. Repeat this with your LEFT arm.

Repeat \_\_\_ times for each arm

Do \_\_\_ sets per day

# Functional Training

## 1) Behind-neck Pass



- i. While seated or standing, place a bottle/cup on a table in front of you.
- ii. While continuing to look forward, pick up the bottle/cup and pass it behind your neck.
- iii. Use your other hand to retrieve the bottle/cup and set back it down on the table.



Repeat \_\_\_ times for each side

Do \_\_\_ sets per day



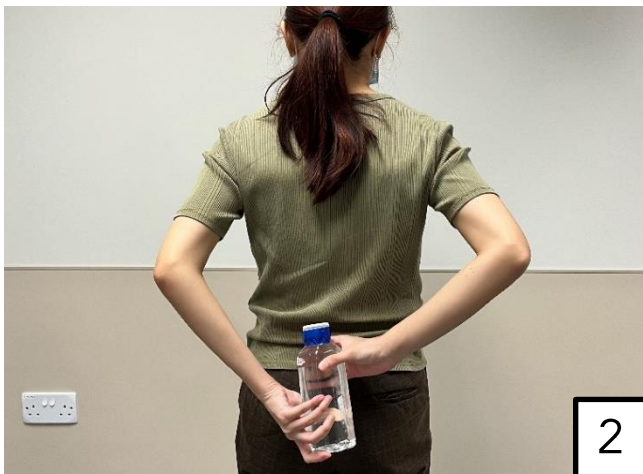
ADL tasks related to this exercise (head and upper body related):

- Washing your head and hair during showering
- Brushing your teeth
- Wearing a shirt



# Functional Training

## 2) Behind-waist Pass



- i. While seated or standing, place a bottle/cup on a table in front of you.
- ii. While continuing to look forward, pick up the bottle/cup and bring it behind your waist, passing it along the top of your pants line.
- iii. Use your other hand to retrieve the bottle/cup and set it back down on the table.

Repeat \_\_\_ times for each side

Do \_\_\_ sets per day



ADL tasks related to this exercise (waist or hips related):

- Rinsing and drying yourself during showering
- Wearing your pants and belt

# Functional Training

## 3) Window Slides



- i. Get a towel and sit or stand in front of a window or wall.
- ii. Place the towel against the wall/window firmly.
- iii. Push the towel upwards along the wall with both hands.
- iv. Gradually return to the starting position.

Repeat \_\_\_ times

Do \_\_\_ sets per day



ADL tasks related to this exercise (overhead or reaching related):

- Drying laundry
- Cleaning
- Organising of items on shelves

# Functional Training

Other functional activities that you can practise for upper limb exercises include:

## 1) Shifting of light-weighted items from table tops to shelves (slightly above eye level)

- i. Slowly lift the items up to the shelf
- ii. Return your hand down to the table top slowly
- iii. Carry up to 10 items at a time



Examples of light-weighted items include cups and bottles

## 2) Wringing of wet towels with both hands

- i. Slowly squeeze the towel dry with both hands
- ii. Hold for one to two seconds then relax
- iii. Repeat five times



\*Avoid this movement if you have pre-existing hand conditions such as arthritis or trigger fingers

# Training Through Your ADLs

Other than engaging in your daily exercises, you can also improve your UL strength and activity endurance through ADLs.

Refer to the RPE scale on page seven of this booklet and start with simple, low to moderate intensity (RPE 2-3) daily activities such as:

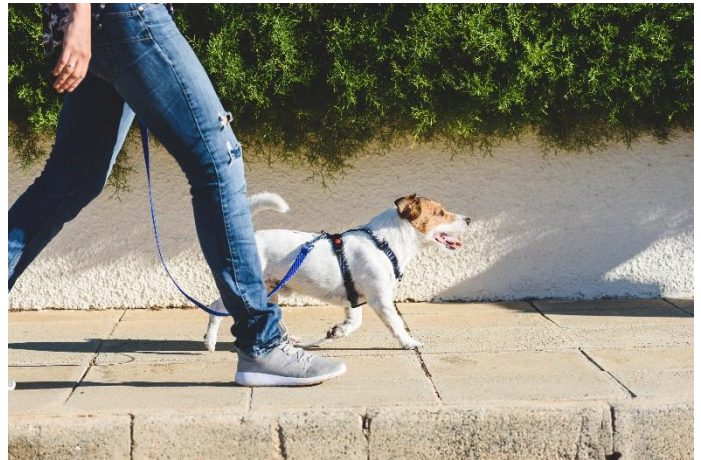
- Preparing simple meals
- Managing your own laundry
- Dusting/cleaning the house



# Training Through Your ADLs

As your UL strength and endurance improves, you may gradually engage in activities of higher intensity such as:

- Gardening
- Taking care of your pets
- Resuming work-related activities



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TTSH Medical Centre, Level B1  
Contact:  
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