

Department of  
**PHYSIOTHERAPY**

## Physiotherapy Before Surgery: A Patient Information Booklet



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# 1. Effects of Surgery

You have been advised by your doctors to undergo surgery. This booklet has been prepared to allow you to understand what can happen after surgery so that you will be able to understand the role of Physiotherapy in helping you through your recovery.

After surgery, it is common for lung complications to occur due to:

- 1) The effect of anaesthesia which relaxes your breathing muscles and causes shallow breathing
- 2) The pain experienced from the wound site which may prevent you from taking deep breaths and limit your ability to cough to clear phlegm (if any)
- 3) Spending more time in bed which does not allow your breathing muscles to work well to help you take deeper breaths.

After the anaesthesia wears off, it is important for you to start performing breathing exercises, coughing to clear phlegm (if any) and moving your limbs. These work together to prevent lung complications as well as maintain muscle strength to prevent a decline in your physical function.

The role of Physiotherapy is to keep you free from lung complications and prevent a decline in your physical function by maximizing your fitness before and after surgery to enhance recovery.

## 2. Preparing for Surgery

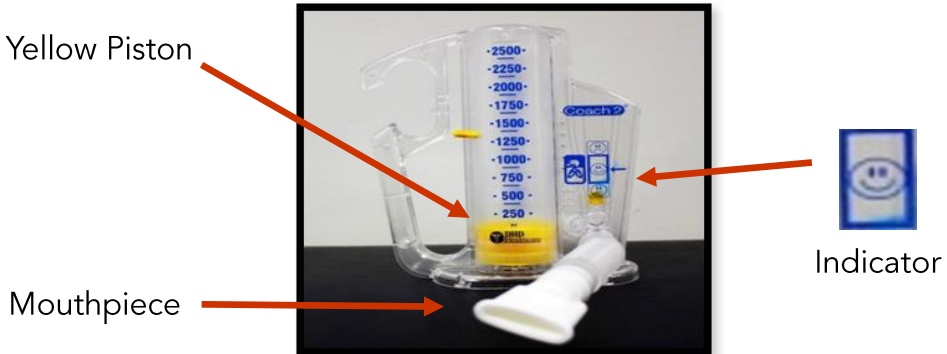
### A. Deep Breathing Exercises

- Sit upright in bed or on a chair.
- Gradually take a deep and long breath through your nose or mouth and allow your lungs to fill up with air.
- Breathe out gradually.



## 2. Preparing for Surgery

### B. Deep Breathing Exercises with Incentive Spirometer



Sometimes, patients may be prescribed with a simple breathing exercise tool called the Incentive Spirometer. Use it when performing deep breathing exercises.

- Hold the incentive spirometer in an upright position.
- Breathe out normally, then do the following:
  - Put the mouthpiece in your mouth and close your lips tightly around it.
  - Inhale slowly through your mouth as deeply as you can. The yellow piston will rise inside the large column.
  - While the piston rises, the indicator on the right should move upwards. This should stay within the “smiley face” for up to 3 seconds.
  - Breathe out gradually.

## 2. Preparing for Surgery

### C. Exercise Programme

Having an exercise programme before surgery helps to facilitate post-surgery recovery by improving your strength and endurance to withstand surgical stress.

#### Endurance Exercise

Frequency: \_\_\_\_\_ times/week

Intensity: \_\_\_\_\_

Time: \_\_\_\_\_ min(s)

Type of exercise (please circle accordingly):

- Walking

- Stairs Climbing

- Cycling

- Fitness Corner

- Swimming

- Others (Please Specify):

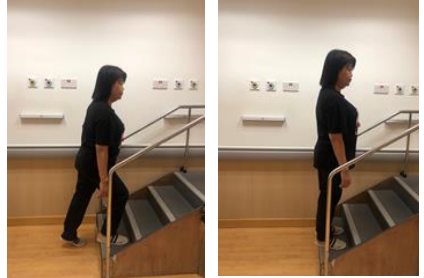
## 2. Preparing for Surgery

### Strengthening Exercises

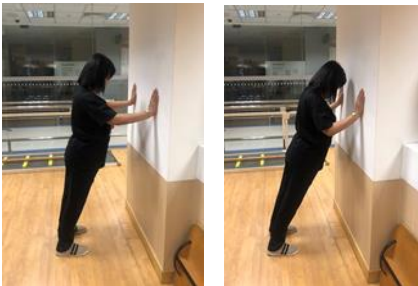
Squat with Arm Support



Step Up



Wall Push up



Shoulder Press



Use with Weights: \_\_\_\_\_ lb/kg

Aim for \_\_\_\_\_ reps \_\_\_\_\_ sets/day



## **Clinics B1C (Physiotherapy)**

TTSH Medical Centre, Level B1

### **Contact:**

6357 7000 (Central Hotline)



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