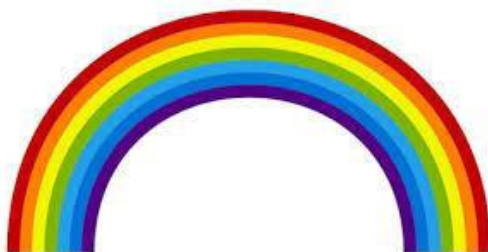


**Physiotherapy and Occupational Therapy**



**Coronavirus (COVID-19)  
Rehabilitation Guide**

Name: \_\_\_\_\_

***Great Staff – Great Care – Great Future***

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## Introduction

This leaflet has been produced to give you general information. Most of your questions should be answered by this leaflet. It is not intended to replace the discussion between you and the healthcare team, but may act as a starting point for discussion. If after reading it you have any concerns or require further explanation, please discuss this with a member of the healthcare team.

## What is Coronavirus (COVID-19)?

Coronavirus (COVID-19) is an infectious virus that mainly affects the lungs. Breathlessness at rest and during activities is a normal symptom of Coronavirus (COVID-19). All staff treating you will be wearing protective equipment and during some treatments you may be asked to wear a mask to minimise the risk of spreading the virus.

## Breathlessness and Managing Breathlessness

### Why do I feel breathless?

Breathlessness is a very common symptom in some people with Coronavirus (COVID-19). The lungs can become inflamed and the effort of breathing can increase. You may be breathing quicker and shallower, however it is important to try and stay calm. Anxiety can increase your heart rate and make your breathing rate increase further.

### Breathing control – aids relaxation

1. Get in a comfortable position
2. Close your eyes and bring attention to your breath
3. Breathe in and out through your nose (or mouth if you are unable to do this)
4. Notice areas of tension in the body and try to release this with each breath out
5. Gradually try and make your breaths slower and deeper

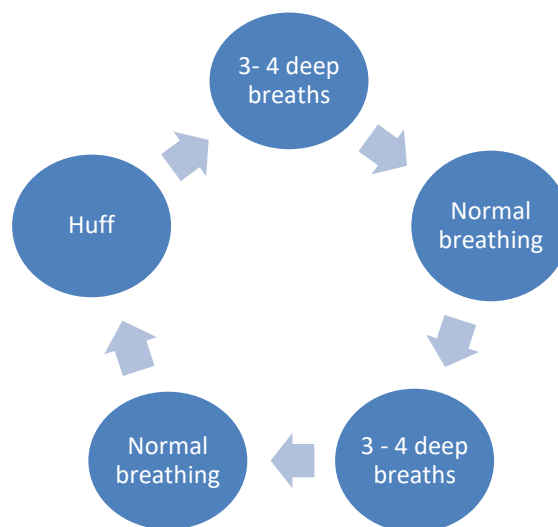
### Pursed lip breathing – useful during activities that make you feel breathless

1. Breathe in gently through your nose
2. Breathe out with your lips pursed as if you are whistling
3. Try to blow out as long as comfortable (do not force your lungs to empty)

### Blow as you go – useful during activities that make you feel breathless e.g. lifting an object

1. Breathe in before you make the effort
2. Breathe out whilst making the effort (e.g. whilst object lifted)
3. Always breathe out at the most difficult part of the action

**Active cycle of breathing technique** – repeat the cycle 2 - 3 times to help clear secretions



### Why might I need supplementary oxygen?

You may have been prescribed medical oxygen (through a mask or nasal prongs) to help improve oxygen levels in the body. This will regularly be assessed and may be prescribed when you go home.

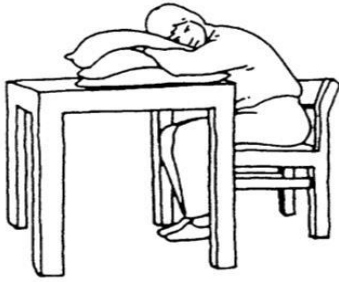
**Positions of ease** – may help to reduce breathlessness and effort of breathing

### High side lying



- Lie on your side
- Use multiple pillows under your head and shoulders
- Bend your knees a little

### Supported forward sitting



- Sitting upright, lean forward onto a table
- Add as many pillows as required

### Forward sitting



- Sit leaning forward
- Rest your forearms on your knees
- Relax your chest and shoulders

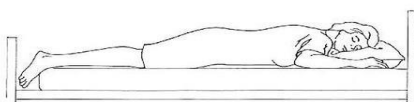
### Supported standing



- Stand leaning forward and use a chair, bench or wall for support
- Relax your chest and shoulders

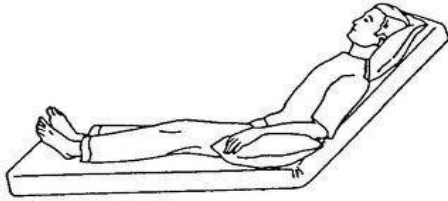
**Postural Changes** – can help to move sputum and promote deep breathing

### Lying on your stomach:



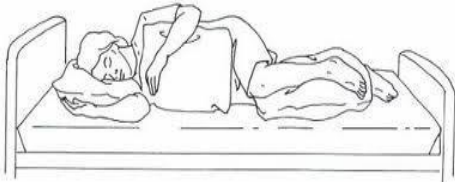
- Lie on your abdomen
- Turn your head to one side
- Use a pillow for your head

### Sitting upright in bed



- Raise the bed between 45 and 60 degrees
- Use a pillow to support your neck

### Side lying



- Lie on your side
- Use a pillow to support your neck
- Bend your knees a little

### Left side lying



- Lie on your abdomen
- Turn your head to the left
- Bend the left leg and arm up
- Keep your right arm behind you
- Use a pillow to support your head





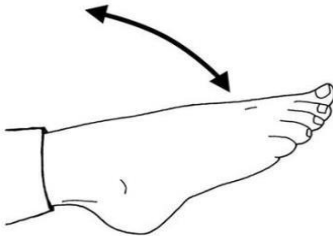
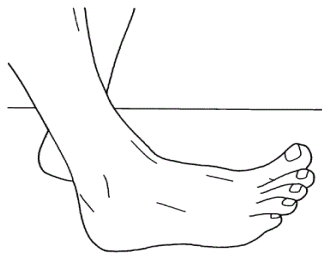
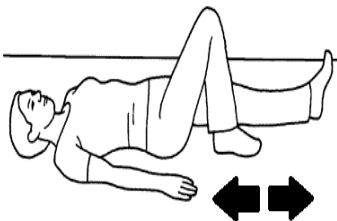
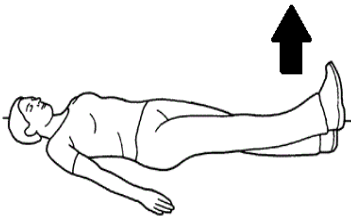
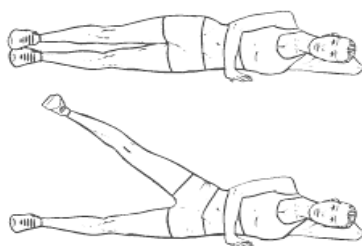
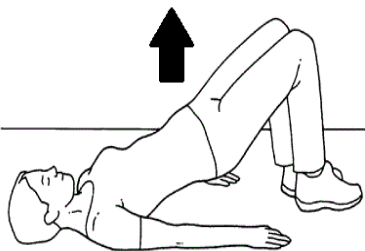
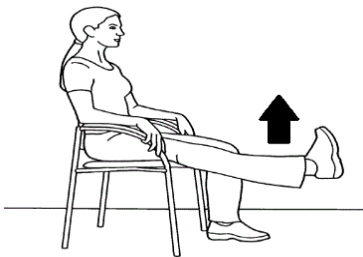

## Why is Mobility and Exercise important?

Movement will help your breathing, help to clear sputum and improve your exercise tolerance, muscle strength and mental health. It may help you to be discharged earlier. Our treatment will focus on breathing, functional and physical exercises.

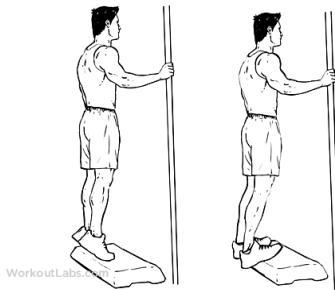
What can I do?

- Get up at a normal hour
- Complete morning tasks e.g. get washed, brush teeth, get dressed
- Sit out in the chair for meals
- Fill in an exercise diary
- Open the blinds / curtains at windows during the day

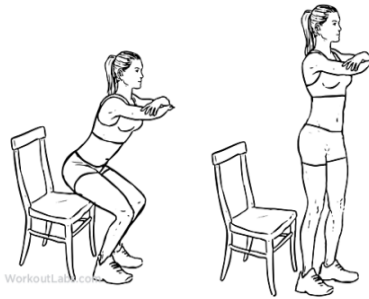
**ONLY COMPLETE EXERCISES IN HOSPITAL AND AT HOME THAT HAVE BEEN DISCUSSED WITH YOU AND TICKED IN THIS GUIDE BY THE THERAPISTS**

<u>Walk</u> <input type="checkbox"/> 	<u>Cycle</u> <input type="checkbox"/> 	<u>Step</u> <input type="checkbox"/> 
<u>Seated walk</u> <input type="checkbox"/> 	<u>Ankle raises</u> <input type="checkbox"/> 	<u>Ankle rotations</u> <input type="checkbox"/> 
<u>Knee bends</u> <input type="checkbox"/> 	<u>Lying leg raises</u> <input type="checkbox"/> 	<u>Lying side leg raises</u> <input type="checkbox"/> 
<u>Bridge</u> <input type="checkbox"/> 	<u>Seated leg raise</u> <input type="checkbox"/> 	<u>Single leg balance</u> <input type="checkbox"/> 

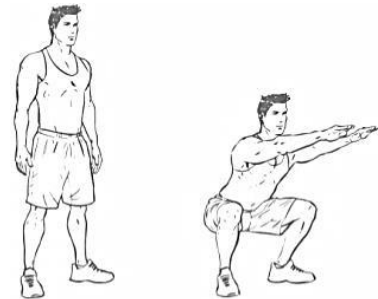
Calf raises ☐



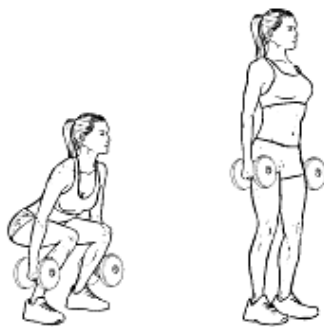
Sit to stand ☐



Squat ☐



Weighted squat ☐



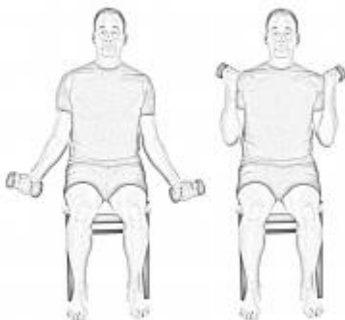
Shoulder roll ☐



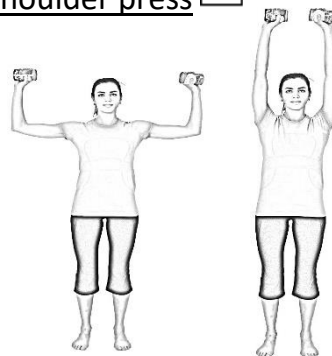
Arm raises ☐



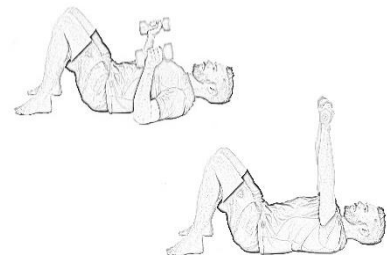
Bicep curls ☐



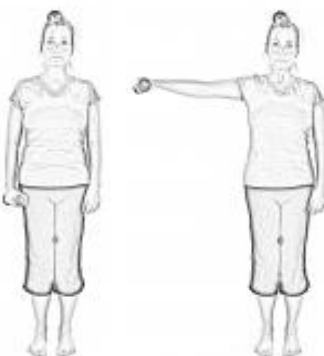
Shoulder press ☐



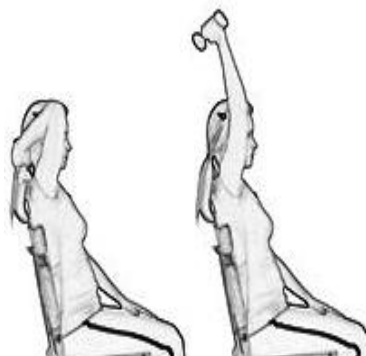
Chest press (lay on bed) ☐



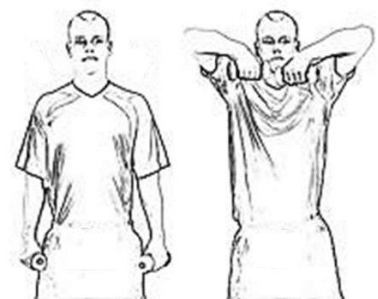
Lateral raise ☐



Tricep extension ☐



Upright row ☐





Other than the cycling, you do not need any special equipment to do these exercises. Calf raises can be done over the edge of a step or stair and you can use bottles of water, bags of fruit or vegetables or tins of food as hand weights. If your exercises have become too easy, you could increase the number of minutes that you hold the weight or stretch, or the number of times you repeat the exercises (repetitions/ reps) before having a rest or the number of sets of each exercise. To be effective, your exercises should feel somewhat hard (i.e. you are aware that your heart rate has increased, you are breathing more deeply and you may feel warm, but you should still be able to talk to someone whilst you are exercising).

**IF YOU FEEL UNWELL DURING EXERCISE THEN STOP AND INFORM  
THE WARD STAFF (IF YOU ARE IN HOSPITAL) OR DOCTOR / TEAM  
THAT ARE REVIEWING YOU (IF YOU ARE AT HOME)**

## **Fatigue Management**

You may be wondering why your energy levels are low and why performing simple activities of daily living suddenly feel like a marathon. Although rest is important in recovery, unlike normal tiredness it does not improve with rest alone. If you are experiencing Coronavirus (COVID-19) related fatigue you may feel unwell and exhausted after the infection has passed. This fatigue can also be affected by other factors such as:

1. Shortness of breath caused from the Coronavirus (COVID-19) infection of the lungs.
2. Muscle deconditioning from having spent long periods inactive and in bed
3. Stress you may feel after going through a period of serious ill health

Physically you may feel weak and drained as you try to do activities. It may affect your thinking skills meaning you may struggle to concentrate for long periods or process lots of information at once. It can affect your emotions so you may feel more frustrated, tearful and anxious.

### **What can I do about fatigue?**

Fatigue can make managing your usual daily tasks more difficult. All daily tasks require the body to use energy through moving and thinking. Fatigue management can help you to understand how to make the most of your body's available energy. This can help you to find ways to balance your physical, social and emotional needs when your energy levels are reduced.

Completing a fatigue diary and rating your fatigue before and after an activity (e.g. having a wash and getting dressed) can help you to understand how different activities can affect your energy levels. Rating your fatigue from 1 - 10 will help you identify patterns of fatigue. This may help you to identify strategies to manage your fatigue e.g. taking a rest in sitting during an activity, or conserve your energy for the important activities that you value.

### How to use a fatigue diary:

1. Start at the beginning of each day
2. Write down each activity and rest period you have taken in each 2 hour box
3. Using the scale below score how you felt at the end of this 2 hour period

Where '0' is no fatigue and '10' is worst fatigue imaginable

4. Record any other factors you feel are relevant e.g. stressful events, skipping meals, over-exertion

### Nutrition and Hydration

Adequate nutrition and hydration play an important role in your body's response to fight and recover from Coronavirus (COVID-19) Eating well (together with the exercises) will help to rebuild your muscle strength and function. Even though you may not feel hungry or thirsty, it is important to eat and drink well.

Below is some general information to help you to optimise your food and fluid intake. If you have specific dietary requirements, please check with a healthcare professional that the information is safe for you to follow.

#### Stay hydrated:

1. Drink regularly throughout the day - take small, frequent sips of liquids every few minutes if you are not able to drink large volumes at one time
2. Aim to drink enough fluid to keep your urine a pale straw colour
3. If you have a raised temperature, your fluid needs may be higher
4. All fluids (except alcohol) count, try to include nourishing fluids such as milky drinks or juices

#### Take in enough calories and protein to be well nourished:

You may require more nutrition than usual to support your body during and after illness. Restriction of energy intake with the aim of reducing body weight is not appropriate during acute illness or recovery due to the risk of reducing lean body mass, strength and function.

1. Include a protein-containing food and / or drink at every meal e.g. milk, milk-based food (or alternatives if unable to have dairy), meat, fish, beans, eggs
2. If your appetite is poor and / or eating is difficult due to breathlessness, aim to have 3 small meals and 3 high protein / energy snacks per day
3. You may be prescribed 'supplement drinks'. These provide extra energy, protein, vitamins and minerals. They should be taken in addition to (not instead of) meals. Try sipping them after your meals so they do not fill you up for your mealtimes.



## Swallowing, Mouth Care and Voice

### Swallowing

Some individuals may experience difficulties with their eating and drinking after being admitted to hospital with Coronavirus (COVID-19). If you are experiencing any indicators of swallowing difficulties listed below speak to your doctor.

- Coughing / choking when eating and drinking
- Feeling as though food is getting stuck
- Gurgly / wet voice
- Poor appetite
- Recurrent chest infections
- Throat clearing when eating and drinking
- Weight loss

### Mouth Care

It is really important that you keep your mouth clean and moist. Oxygen masks can dry your lips and mouth out; ensuring good mouth care can prevent soreness / infection:

- Brush your teeth twice daily with toothbrush and toothpaste
- Take regular sips of water

### Voice

You may have experienced changes to your voice since being in hospital with Coronavirus (COVID-19). There may be several reasons for this, including: the insertion of a breathing tube; a persistent cough; dehydration of your voice box; acid reflux; fatigue and stress. You may experience one or more of the following symptoms:

- Croaky or husky voice
- Difficulty projecting the voice
- Increased throat mucus or throat clearing
- Sore or dry throat
- Weak, breathy voice

The inflammation and damage to your voice box should get better without treatment over the next few weeks however if it does not, ask for a referral to the Ear, Nose and Throat department via your doctor.

## Thinking and Communication

Some individuals may experience difficulties with their thinking. This can impact on the way that they communicate with other people. You may experience one of more of the following difficulties:

- Having a conversation
- Putting your thoughts and feelings into words
- Reading
- Understanding what people are saying

If you are experiencing any of these difficulties, ask your doctor to refer you to Speech and Language Therapist.

## Psychological Health

Going through intensive or high dependency care can be physically and psychologically difficult. You may have little or no memory of the events leading up to your admission or time on intensive care which can leave you feeling confused. Waking up after being sedated, surrounded by staff in protective equipment may leave you feeling anxious and frightened. You may have to re-learn to do things that you once could do very easily e.g. walking. You may experience some of the following difficulties:

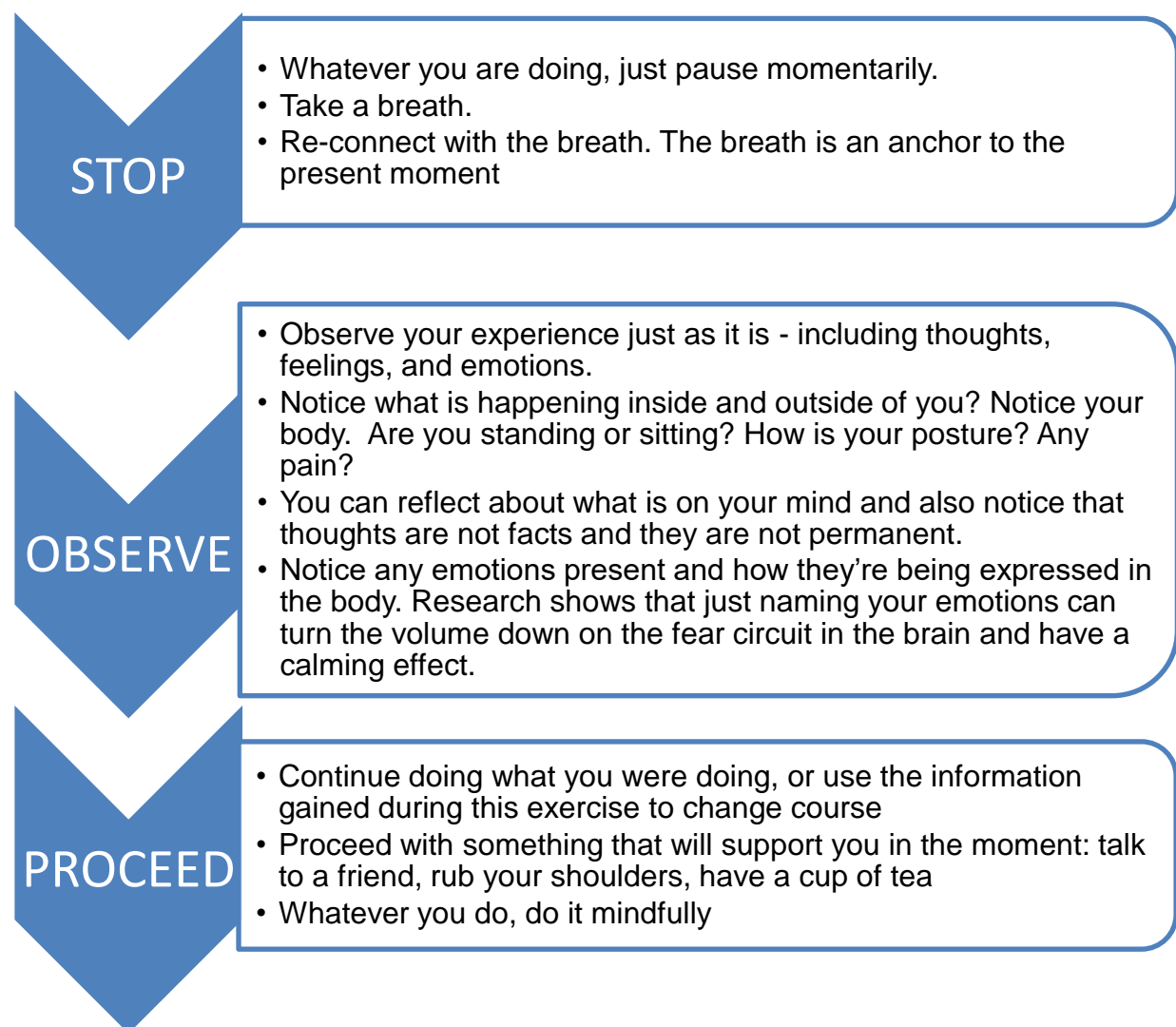
- Anxiety
- Changes to sight, hearing, taste or smell
- Depression
- Fatigue
- Memory loss
- Pain
- Post-traumatic stress symptoms (hallucinations / nightmares / fear / anger)
- Sleep problems
- Social problems

## Understanding Anxiety

Thinking about events from intensive care or worrying about the future, can release adrenaline in the body which activates the body's 'fight or flight' response. When adrenaline is not being used for 'fight or flight', you may experience unpleasant mental and physical sensations (which cannot physically harm you) such as:

- Feeling hot with clammy hands – blood moving to your muscles
- Increased breathing rate – this can make you feel dizzy or faint
- Increased heart rate – a pounding or racing in your chest
- Racing thoughts – unable to relax and sleeping difficulties
- Sinking feeling in the stomach – blood is being diverted from your digestive system to your muscles

Family can also experience anxiety as they come to terms with what you have been through. Both you and your family may benefit from doing some relaxation. The STOP exercise below might be helpful:



## What will happen when I am discharged?

When it is time for you to be discharged from hospital the team who have been looking after you will discuss the support and follow up you will receive when you go home.

If your health deteriorates at any time please contact your doctor or 111 for help and advice

## Understanding Post-traumatic Stress

After being very unwell in hospital, it can take time for our brain to process this experience. It is normal to have vivid and frightening hallucinations and nightmares which should subside over days or weeks. If you are struggling to manage or if you find that they continue for a prolonged period, speak with your GP for guidance.

What can you do?

1. Talk about how you feel – this helps us to understand better how we feel
2. Progression diary – log your daily achievements, no matter how small
3. Set manageable small goals – remember you are still recovering, take it easy
4. Relaxation exercises – use the STOP exercise (above).

## Where to find further Advice and Information

### Useful resources

- **The Chartered Society of Physiotherapy** – 'Covid-19: The Road to Recovery' <https://youtu.be/3sURTAaxmc8>
- **The Chartered Society of Physiotherapy: COVID-19 Recovery** [www.csp.org.uk/recovery](http://www.csp.org.uk/recovery)
- **ICU Steps:** the intensive care patient support charity <https://icusteps.org/>
- **NHS Lancashire Teaching Hospital** – Covid-19 specific guidance <https://bit.ly/358zBqT>
- **British Laryngological Association:** <https://www.britishlaryngological.org/sites/default/files/Advice%20for%20post-COVID%20voice%20recovery.pdf>
- **Older people:** <https://library.nhs.uk/coronavirus-resources/older-people/>
- **Accessible formats:** <https://library.nhs.uk/coronavirus-resources/accessible-formats-2/>
- **Children and young people:** <https://library.nhs.uk/coronavirus-resources/children-and-young-people/>

## Exercise

- **Royal Osteoporosis Society:** Videos for people with osteopenia, osteoporosis, or previous spinal fractures – <https://bit.ly/2XWgaiL>
- **Tune in to 10Today:** 10 minute workouts – <https://bit.ly/2XQCxqw>
- **Chartered Society of Physiotherapy:** Being active with a long term condition – <https://bit.ly/2Vllg5Z>
- **NHS:** Physical activity guidelines – <https://bit.ly/2VnShzl>
- **AgeUK:** Looking after yourself physically and mentally – <https://bit.ly/3eF4qrQ>
- **AgeUK:** Keep active and reduce your risk of falling – <https://bit.ly/3aoTMSD>

## Nutrition

- **British Dietetic Association:** General advice– <https://bit.ly/2VHi9FR>
- <https://www.malnutritionpathway.co.uk/covid19> - Use the 'resources finder' to help you find the right information on good nutrition during or after Covid-19
- **NHS Lancashire Teaching Hospital** (see link above). Covid-19 Supporting Your Recovery - Eating well to help you recover

## Mind

- **Mindfulness exercises and tips** – <https://www.mind.org.uk/information-support/drugs-and-treatments/mindfulness/mindfulness-exercises-tips/>
- **Psychology Tools:** Living with worry and anxiety amidst global uncertainty – [https://www.psychologytools.com/assets/covid-19/guide\\_to\\_living\\_with\\_worry\\_and\\_anxiety\\_amidst\\_global\\_uncertainty\\_en-gb.pdf](https://www.psychologytools.com/assets/covid-19/guide_to_living_with_worry_and_anxiety_amidst_global_uncertainty_en-gb.pdf)
- **Mind:** Psychological wellbeing during coronavirus – <https://bit.ly/2KIGRX4>
- **Headspace:** 10 days free meditation – <https://bit.ly/34QBpoh>
- **Let's Talk:** Free talking therapy service –Self referral 01482 247111 <https://www.letstalkhull.co.uk/pages/covid-19-manage-anxiety-stress>

Ref: HEY1195/2020