

COVID-19 patient rehabilitation booklet

Information for patients



Adult
Therapies

Name: NHS Number:

At home or at our hospitals

To maintain the safety of both you and our staff it is very important to observe the Government guidance regarding:

- Hand hygiene
- The wearing of face coverings
- Social distancing

Sometimes this is difficult to achieve, especially during some of your care, treatment and rehabilitation. However, all staff working with you will be wearing protective equipment and on some occasions you may be asked to wear a face mask to minimise the risk of spreading the virus.

At the end of this document there is a section that gives you more in-depth advice. Please read this important information carefully.

What is COVID-19?

COVID-19 is an infectious virus that mainly affects the lungs. Breathlessness at rest and during activities is a normal symptom of COVID-19.

Why is rehabilitation important?

While you are recovering, rehabilitation will improve your exercise tolerance, muscle strength, help manage your breathlessness and fatigue. Our treatments will focus on breathing, functional and physical exercises. **Only carry out the exercises at home and in hospital that have been discussed with you and ticked in this guide by your therapist.**

Being suitably **hydrated and nourished** play an important role in your body's response to and recovery from the COVID-19 virus. Eating well (together with the exercises) will help to rebuild your muscle strength and function.

What can I do to help myself?

- Get up at a normal hour
- Complete morning tasks e.g. wash, brush teeth, get dressed
- Sit in a chair for meals
- Follow advice on eating and drinking well
- Fill out your exercise diary

Why do I need supplemental 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 are at home.

Why do I feel breathless?

Breathlessness is a very common symptom in some people with 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. Below are exercises to help manage your breathlessness.

Breathing control - something to help you relax

1. Get in a comfortable position
2. Close your eyes and bring your attention to your breathing
3. Breathe in and out through your nose (or mouth if you are unable to do this)
4. Try to breathe in for the count of one, and out for count of two, working towards a longer breath out than in, to slow your breathing rate down
5. Notice areas of tension in the body and try to release this with each breath out
6. Gradually try to make your breaths slower and deeper

Blow as you go - useful during activities that make you breathless e.g. lifting an object (can be used with pursed lip breathing)

1. Breathe in before you make the effort
2. Breathe out whilst making the effort (e.g. as you lift the object)
3. Always breathe out on the hardest part of the action

Positions of ease - these positions may help reduce your 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 on to 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:

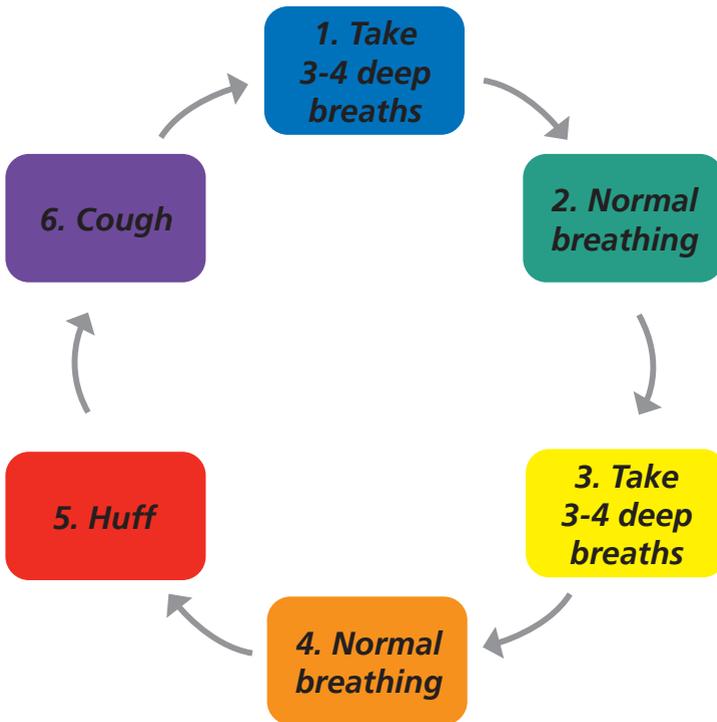
- Stand leaning forward and use a chair, bench or wall for support
- Relax your chest and shoulders



Why am I coughing up sputum?

Coughing up sputum can be a normal symptom of COVID-19. It is important to clear this from your airways to improve your breathlessness and oxygen levels.

Active Cycle Breathing Technique:



- Relax your shoulders
- Deep breathing - hold your breath for 2-3 seconds
- Huff - exhale through an open mouth like you are trying to steam up a mirror
- Repeat the cycle 2-3 times

Try the Active Cycle Breathing Technique in these positions

Frequently changing position can help to move sputum and the upright position can promote deep breathing.

Lying on your stomach:

- Lie on your abdomen
- Turn your head to one side
- Use a pillow for your head
- Don't worry if you can't manage this position, try the positions below instead



Sitting upright in bed:

- Raise the head of your bed using pillows or the bed back rest 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



Mobility: moving will promote deep breathing, help to clear sputum, and get your muscles working. This diagram shows the different levels of mobility you should work towards.



Exercises: regular exercise will improve your exercise tolerance, muscle strength, mental health. Your Physiotherapist will help you select your exercise programme using a selection of the exercises shown on the next two pages.

If you feel unwell during these exercises then stop and inform the ward staff (if you are in hospital) or your GP/ team that are reviewing you (if you are at home)

Exercises:

<i>Walk</i>	<i>Step</i>	<i>Seated walk Knee bends</i>	<i>Seated leg raise</i>
			

<i>Ankles raises</i>	<i>Ankle rotations</i>	<i>Alternate knee bends</i>	<i>Lying leg raises</i>
			

<i>Foot bridges</i>	<i>Little toe out and in</i>	<i>Bridge</i>	<i>Lying side leg raises</i>
			

Exercises:

<p><i>Calf raises back to a high surface, finger tips on surface</i></p>	<p><i>Toe raises facing a high surface, finger tips on surface</i></p>	<p><i>Squat</i></p>	<p><i>Dumbbell squat</i></p>
			

<p><i>Sit to stand</i></p>	<p><i>Shoulder rolls</i></p>	<p><i>Arm raises</i></p>	<p><i>Bicep curl</i></p>
			

<p><i>Chest press (on your bed)</i></p>	<p><i>Lateral raise</i></p>	<p><i>Shoulder press</i></p>	<p><i>Upright row</i></p>
			

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

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 my hardest race

Fatigue management

You may be wondering why your energy levels are low and why doing simple activities of daily living suddenly feel like a marathon. Fatigue is a common symptom of COVID-19. Although rest is important in recovery, unlike normal tiredness it does not improve with rest alone.

If you are experiencing 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:

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

Fatigue can affect you in lots of different ways. 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.

An Occupational Therapist can support you to become more in control of your fatigue. They can help you understand how to recognise fatigue and manage the symptoms you may be experiencing.

Rating your fatigue from 1-10 will help you identify patterns of fatigue. You can discuss this with your Occupational Therapist who will support you to identify strategies to manage your fatigue.

Completing a fatigue diary and rating your fatigue before and after an activity (e.g. having a wash and dressing) can help you to understand how different activities can affect your energy levels.

Advice

An Occupational Therapist will see you on the ward if you need them. When at home ask your GP to refer you.

How to use a fatigue diary

- Start at the beginning of each day
- Write down each activity including rest period you have taken in each three hour interval
- Using the scale below score how you felt at the end of this three hour period
- Record any other factors you feel are relevant e.g. stressful events, skipping meals, over-exertion

Fatigue scoring



Nutrition and hydration

Good nutrition and hydration help to support your body in fighting Covid-19 as well as helping to rebuild your muscle strength and function as part of your rehabilitation. 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 maximise 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.

What you need to do:

1. Stay hydrated:

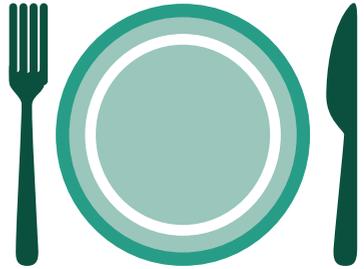
Being well hydrated helps your body to function, and aids mobilisation and recovery.

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



2. Take in enough energy 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 muscle mass, strength and function.



- 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, pulses, beans, eggs
- Whilst in hospital, choose hospital menu items coded '↑', as these are higher in energy
- If your appetite is poor and/or eating is difficult due to breathlessness:
 - Have three small meals and three high protein/higher snacks (e.g. cheese and biscuits, custard pot, rice-pudding pot) per day
 - You may be prescribed Oral Nutritional Supplement drinks (e.g. Fortisip or Fresubin). These provide extra energy, protein, and essential vitamins and minerals. Try sipping them after a meal rather than before or with a meal. This will ensure you make the most of your appetite for food

Practical tips to help you eat and drink well

<i>Reduced taste/smell</i>	Choose strongly flavoured foods, e.g. spicy, citrus. Add sauces or extra herbs/pepper to add more taste to meals
<i>Breathlessness</i>	Choose soft (easy chew) foods & nourishing drinks. Eat slowly and take smaller bites. Try to eat more at the times when you feel less breathless
<i>Dry mouth</i>	Sip drinks regularly, choose moist foods & ensure good mouth care. Try sucking on fruit sweets, mints or chewing gum to stimulate saliva production

If you have any concerns about your eating and drinking:

- **In hospital** - speak to your nurse
- **At home** - speak to your GP

Swallowing

Some individuals may experience difficulties with their eating and drinking after being admitted to hospital with COVID-19.



Indicators of swallowing difficulties:

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

Advice:

A Speech and Language Therapist will see you on the ward if you need them. When at home ask your GP to refer you to a Speech and Language Therapist if you experience:

- Coughing/choking/throat clearing when you are eating or drinking
- A gurgly or wet voice quality
- Feeling of food sticking after eating or drinking

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 and infection:

- Brush your teeth twice daily with toothbrush and toothpaste
- Take regular sips of water
- If you are NOT using oxygen, apply lip balm

Voice

You may have experienced changes to your voice since being in hospital with COVID-19. There may be several reasons for this, including:

- The insertion of a **breathing tube** into the voice box
- A persistent cough
- Dehydration of your voice box
- Acid reflux
- Fatigue and stress

What problems may I experience?

You may experience one of more of the following symptoms:

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

Will my voice return to normal?

The inflammation and damage to your voice box should get better without treatment over the next few weeks however if it does not please seek a referral to the Ear, Nose and Throat (ENT) department via your GP.



Cognitive-Communication

Some individuals may experience difficulties with their thinking. This can impact on the way that they communicate with other people.

What problems may I experience?

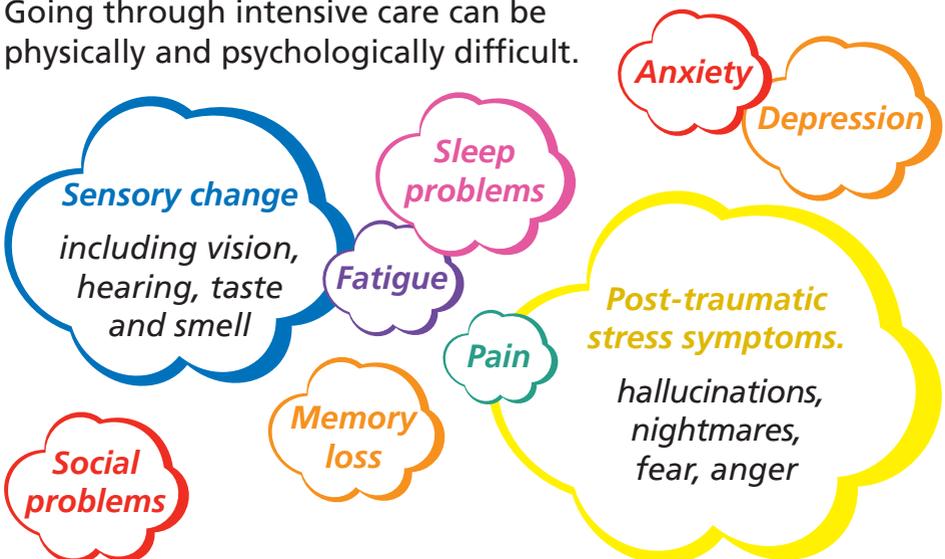
You may experience one of more of the following difficulties:

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

If you are experiencing any of these difficulties you should ask your GP to refer you to speech and language therapy.

Psychological health

Going through intensive care can be physically and psychologically difficult.



You may have little or no memory of the events leading up to your admission, or the time when you were very ill, which can leave you feeling confused. Being surrounded by staff in protective equipment may leave you feeling anxious and frightened. You may have to relearn to do things that you once could do very easily e.g. walking.

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 to 'fight or flight', you may experience unpleasant mental and physical sensations (which cannot physically harm you) such as:

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

Understanding post-traumatic stress

After a traumatic experience such as 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 I do?

- Talk about how you feel - this helps us to understand better how we feel
- Progression diary - log your daily achievements, no matter how small
- Set manageable small goals - remember you are still recovering, take it easy
- Relaxation exercises - use STOP (below) and read the useful resources links

STOP - something to help you relax

S

Stop

Whatever you are doing, just pause momentarily.

T

Take a breath

Re-connect with the breath. The breath is an anchor to the present moment.

O

Observe

Notice - What is happening inside and outside of you?

Where has your mind gone?

What do you feel?

P

Proceed

Continue what you were doing.

Or use the information gained during this exercise to change course.

Whatever you do, do it mindfully.



If you are reading this guide when you are in hospital, you may wonder “What will happen when I go home?”

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

If you wish, on discharge from hospital your rehabilitation can continue to be supported in the community.

The team that will be working with you are:

.....

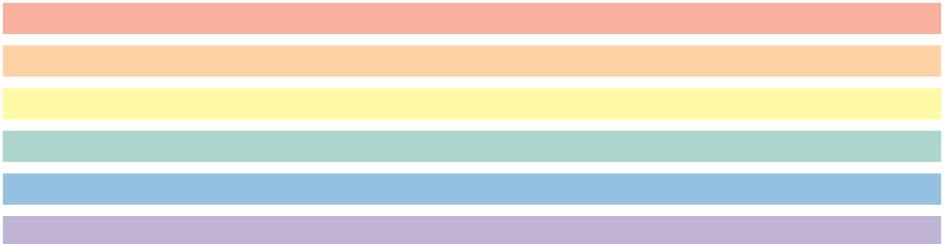
Their contact details are:

.....

The team will contact you within 24 hours of you arriving home to arrange an assessment and discuss how they can help.

If you do not receive a telephone call please contact the team on the above number.

If your health deteriorates please contact your GP or 111 for help and advice.



Useful resources

- **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/>
- **How to manage post-viral fatigue after COVID-19:**
<https://www.rcot.co.uk/how-manage-post-viral-fatigue-after-covid-19-0>

Exercise

- **Royal Osteoporosis Society:** Videos for people with osteopenia, osteoporosis, or previous spinal fractures -
<https://bit.ly/2XWgajL>
- **Tune in to 10 Today:** 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
- **Support with shopping:** Leeds city council Help Line - 0113 3781877
- **Food First** - Advice for Adults with a Poor appetite - produced by Leeds Community and Leeds Teaching hospitals. available from ward staff and dietitians

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
- **Mind:** Psychological wellbeing during coronavirus - <https://bit.ly/2KlGRX4>
- **Headspace:** 10 days free meditation - <https://bit.ly/34QBpoh>
- **Leeds Mental Wellbeing Service** - <https://www.leedscommunityhealthcare.nhs.uk/our-services-a-z/leeds-mental-wellbeing-service/what-we-offer/>

Hospital appointments

There are some actions you can take to help:

- Please keep to the left when walking along the corridors
- Please walk in single file if you are able
- Please comply with social distancing signs and floor markings
- Please follow one way routes when directed to do so by staff

If you have an appointment please do not arrive early. Try to attend no more than 10 minutes before your expected appointment time. If you arrive earlier than this you may be asked to return nearer to your appointment time. This is to stop too many people being in the department at one time. If you arrive late, your appointment may need to be rebooked for another date.

We kindly ask that you attend the outpatient department on your own, if at all possible. If you need help with walking, communicating, or have other care needs, then no more than one carer or family member who lives at same address should attend the department with you. If you need more than one carer to come to hospital with you, please contact the Trust Learning Disabilities and Autism Team on 0113 206 6836 who will discuss your support needs with you. Parents are asked that only one parent attends the department with their child. If you have been driven to the hospital, your driver will be asked to wait outside the hospital, or in their car.

Face coverings

All patients and visitors must wear a face covering whilst in the hospital.

Face coverings do not replace the need to follow social distancing rules but may prevent you passing on coronavirus before you have symptoms.

If you have your own face covering, you must wear this to your appointment. On your arrival, clinical staff may ask you to wear a surgical face mask whilst you are with us. Thank you for your cooperation with this.

A cloth face covering should cover your mouth and nose while allowing you to breathe comfortably. It can be as simple as a scarf or bandana that ties behind the head. When wearing a face covering, take care to tuck away any loose ends.

Wash your hands or use hand sanitiser before putting it on and after taking it off. Avoid touching your eyes, nose, or mouth at all times and store used face coverings in a plastic bag until you have an opportunity to wash them.

Do not touch the front of the face covering, or the part of the face covering that has been in contact with your mouth and nose. Once removed, make sure you clean any surfaces the face covering has touched.

You should wash a face covering regularly. It can go in with other laundry, using your normal detergent. Information on how to make your own face covering may be found at:

www.gov.uk/government/publications/how-to-wear-and-make-a-cloth-face-covering/how-to-wear-and-make-a-cloth-face-covering

Please take this booklet home with you.

If you still have a COVID-19 positive swab result, you must keep this booklet in a sealed bag for FIVE days.

Authors:

F. Allport (Occupational Therapist), R. Carter (Dietitian), L. Durkin (Physiotherapist), A. Gibson (Speech & Language Therapist), V. Halstead (Speech & Language Therapist), A. Hanratty (Speech and Language Therapist), L. Hubbard (Physiotherapist), L. Kelly (Dietitian), L. MClean (Occupational Therapist), C. Mills (Speech and Language Therapist), L. Pearson (Dietitian), D. Ross (Physiotherapist), R. Tarrant (Physiotherapist), R. Waddington (Physiotherapist), H. Urwin (Occupational Therapist), C. Walshaw (Occupational Therapist),

Corresponding Author:

Dr Denise Ross (Clinical Specialist Physiotherapist)



*With grateful thanks to the Liverpool Heart and Chest Hospital,
for permission to use and adapt their leaflet for Leeds patients.
And physiotec.org for the use of the exercise photographs used.*



What did you think of your care?

Scan the QR code or visit bit.ly/nhsleedsfft

Your views matter



© The Leeds Teaching Hospitals NHS Trust • 1st edition (Ver 1)
Developed by: Dr Denise Ross (Clinical Specialist Physiotherapist)
Produced by: Medical Illustration Services • MID code: 20200616_007/BP

LN004864
Publication date
06/2020
Review date
06/2023