



Physical activity & exercise

Many people with Long COVID experience symptoms that can make it difficult to be physically active. However, exercise has many health benefits, both physically and emotionally, and is an important part of the recovery process. Exercise can help to:

- Improve fitness
- Reduce breathlessness
- Increase muscle strength
- Improve balance and coordination
- Improve your thinking
- Reduce stress and improve mood
- Increase confidence
- Improve your energy

It's important to talk to your health care provider about the right level of activity before getting started. For people experiencing extreme fatigue or post-exertional malaise (PEM), the wrong kind or amount of exercise could lead to worsening symptoms.

There's no one route back to fitness. Slowly working toward a gradual return to normal activity is the goal. Consider following the "Rule of Tens", which recommends increasing the duration, intensity and frequency of activity or exercise by 10% every 10 days, as tolerated.

Exercising safely

Exercising safely is important, even if you were independent with your mobility (walking) and other exercise before becoming ill. It's particularly important if you:

- Had difficulty with your mobility before becoming sick
- Have a history of falls
- Have any other health condition or injury that may put your health at risk with exercising
- Have been discharged from hospital on medically prescribed oxygen

In these cases, you may need to exercise with someone else for safety. Anyone on additional oxygen **MUST** discuss their use of oxygen during exercise with a healthcare professional before starting.

These simple rules will help you exercise safely:

- Always warm-up before exercising, and cool down after exercising
- Wear loose, comfortable clothing and supportive shoes
- Wait at least an hour after a meal before exercising
- Drink plenty of water
- Avoid exercising in very hot weather
- Exercise indoors in very hot or cold weather

Exercising at the right level

To work out whether you are exercising at the right level, think about speaking a sentence:

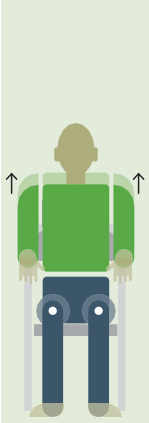
- If you can speak the whole sentence without stopping and are not feeling breathless, then you can exercise harder
- If you cannot speak at all, or can only say a word at a time and are severely breathless, then you are exercising too hard
- If you can speak a sentence, pausing once or twice to catch your breath, and are moderately to *almost* severely breathless, then you are exercising at the right level

Remember that it is normal to feel breathless when you exercise, and it is not harmful or dangerous. Gradually building your fitness can help you become less breathless. In order to improve your fitness, you should feel moderately to almost severely breathless when you exercise.

If you feel too breathless to speak, you should slow down or stop to rest until your breathing feels more controlled.

Warm-up exercises

Warming up prepares your body for exercise to prevent injury. Your warm-up should last around 5 minutes, and at the end you should feel slightly breathless. Warm-up exercises can be done in sitting or in standing. If you do your warm-up in standing, hold on to a stable surface for support if needed. Repeat each movement 2-4 times.



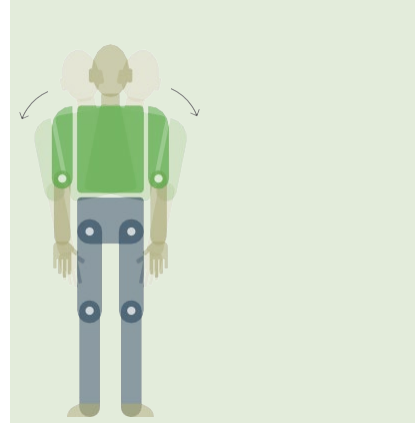
1. Shoulder shrugs

Slowly lift your shoulders up towards your ears and then down again



2. Shoulder circles

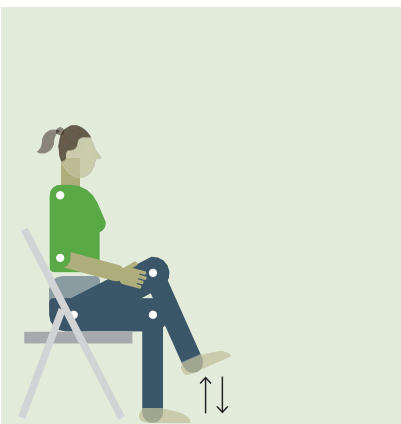
Keeping your arms relaxed by your side or resting on your lap, slowly move your shoulders round in a circle forwards, and then backwards



3. Side bends

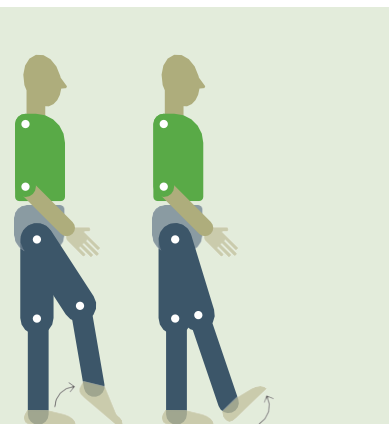
Start with your body straight and your arms by your sides

Slide one arm, then the other, a short way towards the floor, bending sideways



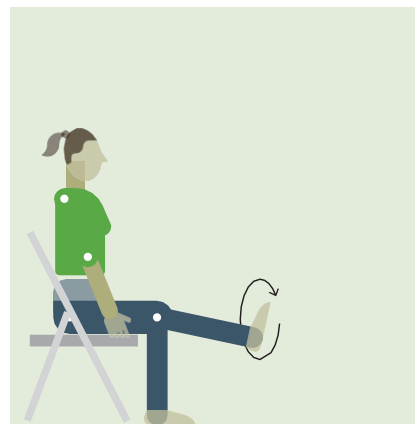
4. Knee lifts

Lift your knees up and down slowly, no higher than your hip, one at a time



5. Ankle taps

Firstly, using one foot, tap your toes and then your heel on the ground in front of you; repeat with the other foot



6. Ankle circles

Using one foot, draw circles with your toes; repeat with the other foot

Fitness exercises

You should aim to do fitness exercise for 20-30 minutes, 5 days each week.

Some examples of different types of fitness exercises are described below, but any activity that makes you feel moderately to almost severely breathless can be counted towards your fitness exercise. Time your fitness exercise and gradually build up the amount of time you can manage. This may be in small increases such as an additional 30 seconds or 1 minute of activity. It may take a while to return to the level of activity you were normally able to do before you became unwell.

Examples of fitness exercises

7. Marching on the spot

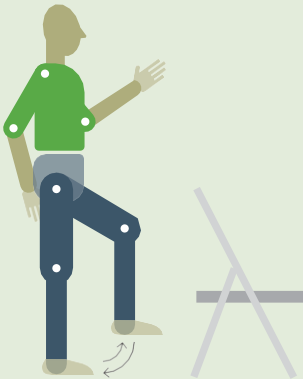
- If needed, hold onto a stable chair, or surface for support, and have a chair nearby to rest
- Lift your knees one at a time

Progressing this exercise:

- Increase the height you lift your legs, aiming to reach hip height if possible

When you might choose this exercise:

- If you cannot go outside to walk
- If you are not able to walk very far before needing to sit down



8. Step-ups

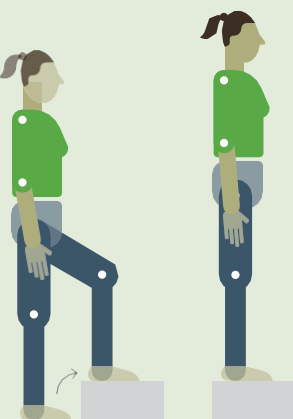
- Use the bottom step of your flight of stairs
- If needed, hold on to the handrail for support, and have a chair nearby to rest
- Step up and down, changing the leg you start with every 10 steps

Progressing this exercise:

- Increase the height of the step, or speed of stepping up and down
- If your balance is good enough to do this exercise without holding on, then you can carry weights as you step up and down

When you might choose this exercise:

- If you cannot go outside
- If you are not able to walk very far before needing to sit down



9. Walking

- Use a walking frame, crutches, or stick if needed
- Choose a route that is relatively flat

Progressing this exercise:

- Increasing the speed or distance you walk, or if accessible, include walking uphill in your route

When you might choose this exercise:

- If you can get outdoors to exercise

10. Jogging or cycling

- Only do jogging or cycling if it is medically safe for you

When you might choose this exercise:

- If walking is not making you out of breath enough
- If you could jog or cycle before you became unwell

Strengthening exercises

Strengthening exercises will help improve muscles that have become weaker as a result of your illness. You should aim to do three sessions of strengthening exercise each week. Strengthening exercises will not make you feel breathless in the same way as fitness exercises. Instead, your muscles will feel like they have worked hard.

You should aim to complete up to 3 sets of 10 repetitions of each exercise, taking a short rest in between each set. Do not worry if you find these exercises hard. If you do, start with a smaller number of repetitions in each set and build up to achieving sets of 10. As you get better with the exercises, use heavier weights to make your muscles work harder. You can use tins of food or bottles of water as weights.

Some strengthening exercises for your arms and legs are described below, which can be done in sitting or standing. These can be done in any order. Keep a good posture, with your back straight and your tummy tucked in, and complete the exercises slowly.

Remember to breathe in as you prepare to do the hardest part of the exercise and breathe out as you make the effort.

Examples of strengthening exercises for your ARMS

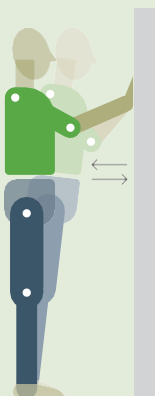


1. Bicep curl

- With your arms by your side, hold a weight in each hand with your palms facing forwards
- Keep the top part of your arm stationary. Gently lift the lower part of both arms (bending at the elbows), bringing the weights up
- You can do this exercise sitting or standing

Progressing this exercise:

- Increase the weight you use while doing this exercise

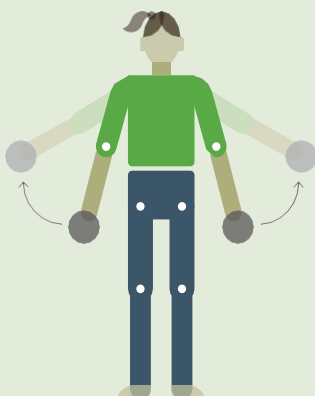


3. Wall push off

- Place your hands flat against a wall at shoulder height, with fingers facing upwards, and your feet about a foot away from the wall
- Keeping your body straight at all times, slowly lower your body towards the wall by bending your elbows, then gently push away from the wall again, until your arms are straight

Progressing this exercise:

- Stand further away from the wall



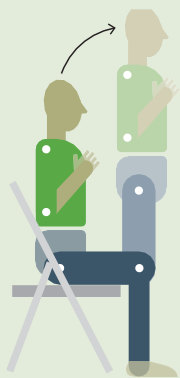
3. Arm raises to the side

- Hold a weight in each hand, with your arms by your sides, and your palms facing inwards
- Raise both arms out to the side, up to your shoulder level (but not higher), and slowly lower back down
- You can do this exercise sitting or standing

Progressing this exercise:

- Increase the height that you lift your arms, but no higher than your shoulder level
- Increase the weight you use while doing the exercise

Examples of strengthening exercises for your LEGS

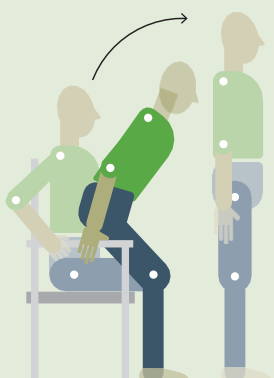


1. Sit to stand

- Sit with your feet hip-width apart. With your arms by your side or crossed over your chest, slowly stand up, hold the position for the count of 3, and slowly sit back down onto the chair. Keep your feet on the floor throughout
- If you cannot stand up from the chair without using your arms, try a higher chair. If this is still too hard at first, you may push with your arms

Progressing this exercise:

- Make the movement as slow as possible
- Perform the exercise using a lower chair
- Hold a weight close to your chest whilst doing the exercise

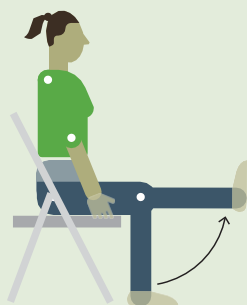


2. Knee straightening

- Sit in a chair with your feet together. Straighten one knee and hold your leg out straight for a moment, then slowly lower it. Repeat with your other leg.

Progressing this exercise:

- Increase the time holding your leg out straight to a count of 3
- Perform the exercise more slowly

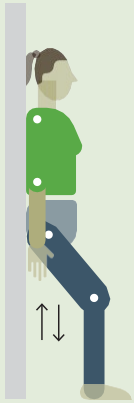


3. Squats

- Stand with your back against a wall or other stable surface and your feet slightly apart. Move your feet about a foot away from the wall. Alternatively rest your hands on the back of a stable chair
- Keeping your back against the wall, or holding on to the chair, slowly bend your knees a short distance; your back will slide down the wall. Keep your hips higher than your knees
- Pause for a moment before slowly straightening your knees again

Progressing this exercise:

- Increase the distance you bend your knees (remember to keep your hips higher than your knees)
- Increase the time you pause to a count of 3 before straightening your knees

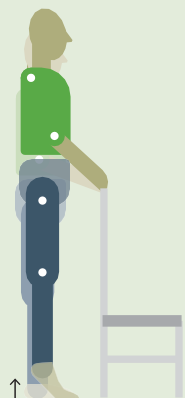


4. Heel raises

- Rest your hands on a stable surface to support your balance, but do not lean on them
- Slowly rise up on to your toes, and slowly lower back down again

Progressing this exercise:

- Stand on your toes for a count of 3
- Stand on one leg at a time



Cool down exercises

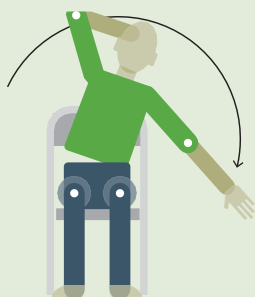
Cool down exercises allow your body to return to normal before stopping exercise. Your cool down should last approximately 5 minutes, and your breathing should be back to normal by the end. Try working through all these suggestions, but if you cannot manage all the exercises or stretches, do the ones that you can.

1. Walking at a slower pace or gently marching on the spot, for approximately 2 minutes

2. Repeat the warm-up exercises to move your joints; these can be done in sitting or standing

3. Muscle stretches

Stretching your muscles can help to reduce any soreness you may feel over the one to two days following exercise. You can do these stretches in sitting or in standing. Each stretch should be performed gently, and you should hold each one for 15-20 seconds.



Side:

Reach your right arm up to the ceiling and then lean over to the left slightly; you should feel a stretch along the right side of your body. Return to the starting position and repeat on the opposite side.



Shoulder:

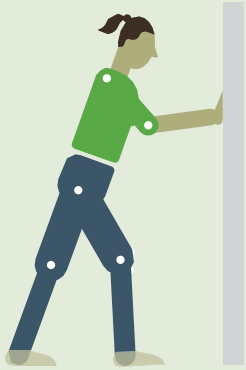
Put your arm out in front of you. Keeping your arm straight, bring it across your body at shoulder height, using your other hand to squeeze your arm to your chest so you feel a stretch around your shoulder. Return to the starting position, and repeat on the opposite side.

Back of thigh (Hamstring):



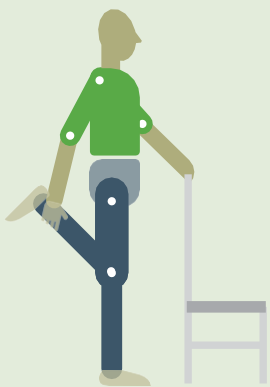
Sit on the edge of a chair with your back straight and feet flat on the floor. Place your leg out straight in front of you with your heel resting on the ground. Place your hands on your other thigh as support. Sitting as tall as you can, bend slightly forwards at your hips until you can feel a slight stretch down the back of the leg that is stretched out. Return to the starting position, and repeat on the opposite side.

Lower leg (Calf):



Stand with your feet apart and leaning forwards onto a wall or something sturdy for support. Keep your body upright and step one leg behind you. With both feet facing forwards, bend your front knee, keeping your back leg straight and your heel on the floor. You should feel a stretch in the back of your lower leg. Return to the starting position and repeat on the opposite side.

Front of thigh (Quads):



Stand up and hold onto something stable for support. Bend one leg up behind you, and if you can reach it, use the hand on the same side to hold your ankle or the back of your leg. Take your foot up towards your bottom until you feel a stretch along the front of your thigh. Keep your knees close together and your back straight. Return to the starting position and repeat on the opposite side.

You can also do this stretch sitting down on a stable chair: sit near the front of the chair, off to one side (so that you are only sitting on about half of the chair). Slide the leg closest to the edge off the chair and position it so that your knee is pointing down in line with your hip and your weight is through your toes. You should feel the stretch along the front of your thigh. Repeat on the opposite side.

Find a way to stay motivated with your exercises. Keeping track of your progress with a diary or exercise 'app' on your phone or watch may help.



“RED FLAGS” NEEDING URGENT ATTENTION:

If you start to feel any of the following symptoms, do not exercise, or stop exercising right away. Contact your health care provider or call 911:

- Nausea or feeling sick
- Dizziness or light headedness
- Severe shortness of breath
- Clamminess or sweating
- Chest tightness
- Increased pain