



Pulmonary Rehabilitation Exercise Booklet





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Disclaimer

It is your responsibility to undertake these exercises safely. Stop performing these exercises if you experience pain or you feel unwell. The authors and advisors, who have created this booklet, accept no liability for injury caused as a result of doing these exercises.

1. Why do I need to exercise?

If you are a patient with a breathing condition you should do a home exercise program along with your pulmonary rehabilitation. It helps keep your lungs and muscles strong. Regular exercise makes it easier to breathe and do your everyday tasks like walking or climbing stairs. It also helps your lungs work better over time. This can make you feel more energetic and less tired. By exercising at home, you can keep improving even when you are not at rehabilitation. Remember it is your responsibility to undertake these exercises safely.

2. What are the benefits of doing exercise?

- ✓ Improves muscle strength and fitness, fitter muscles require less oxygen to work.
- ✓ A fitter heart means a more efficient heart.
- ✓ Increases respiratory muscle strength and chest mobility, helping to reduce work of breathing.
- ✓ Increased feeling of well-being.
- ✓ Can reduce anxiety & depression.
- ✓ Improves your circulation.
- ✓ Better sleep patterns.
- ✓ Increases appetite.
- ✓ Increases resistance to infection.

- ✓ Improves bone density.
- ✓ During daily activities you will be less short of breath and less tired.
- ✓ Getting breathless when you exercise is good for you. It is normal to get breathless when you are active. You can get more used to the feeling of being breathless, so it does not feel as uncomfortable.



3. Make a plan to suit you

Setting goals helps you work out what you would like to achieve from your exercise program and why. Look at your exercise options, for example, walking, home exercise programme from exercise professionals, gym/exercise facility.

What is your main goal?

4. How do I get started?

Aim to move more every day and set yourself goals that you can achieve, for example, walk 15 minutes twice per day. Always remember to warm up before you exercise and cool down and stretch afterwards.

For cardiovascular exercise aim for:

- 30 - 60 minutes a day.
- Aim for 3-5 days a week.
- Starting out, break this up into three 10 - minute timeslots, morning, afternoon and evening.
- Increase a little each week.

For strength exercises aim for:

- 2-3 days per week.
- Approximately 1-3 sets of 8-12 repetitions.
- 1-3 minute rest between sets.

For all the exercises that require a weight, try to find a weight that allows you to do 8-12 repetitions, making the muscle feel tired with a slight ache that recovers following a short rest.” (Examples might be a 1 or 2 litre milk carton filled with water or rice).

5. How short of breath should I feel during exercise?

The BORG breathlessness scale helps people with lung disease to rate how breathless or fatigued they feel during exercise, and to understand how hard they should work.

At rest, your score should be 0-1, meaning you are breathing easily and comfortably. Research has shown that to benefit from exercise you should work at a level that makes you feel moderately to somewhat severely breathless, a score of **3-4 on the BORG scale**.

This is the right level because it means you are pushing yourself enough to improve your lungs and muscles but not so much that you will feel too out of breath.

Working at these scores ensures that exercise is safe and that your muscles and lungs will feel the benefits of the work that you put in, without feeling too breathless or fatigued.

Use this scale to help you to see how hard you need to work - the words and numbers describe how breathless you feel.

The Borg scale is located at the back of this booklet.

6. The talk test

If you can talk but not sing, you are in a good exercise zone. If you can't talk at all, you are working too hard.

7. What if I am working too hard?

If you are exercising above BORG score of 4 or more, or can't talk while exercising, it means you are working too hard.

The advice is not to stop suddenly but to reduce your exercise by doing one or all of the following:

1. **Slow down** by walking or moving at a slower pace to give your lungs a break.
2. **Take deeper, slower breaths:** This helps bring more oxygen into your body.
3. **Focus on your long slow exhale,** forget about your inhale, you will do this automatically.
4. **Rest or stop** for a short time to catch your breath before starting again at a lower intensity.
5. **Do smaller movements:** For example, if you are walking, take smaller steps or lower your arm movements to make the effort less.

By following these steps, your body will get the exercise it needs without overworking your lungs or muscles!

8. Tips for exercising safely

It is very important to look after yourself while you exercise. Make sure you:

- ✓ Talk to your doctor or health care professional before starting any new exercise regime.
- ✓ Wear comfortable clothes and good shoes.
- ✓ Start slow and build up.
- ✓ Make sure that you do your warm up and cool down.
- ✓ If you have an inhaler or a special spray for your heart, always keep it close by.
- ✓ Drink plenty of water during the day and do not exercise for at least an hour after eating.
- ✓ If your doctor has prescribed oxygen for you, make sure to use it correctly when you are exercising.
- ✓ It might help to use your inhaler 5-20 minutes before exercising, but always check with your doctor first.

STOP exercising if you

- Have sudden chest pain or tightness.
- Feel dizzy, lightheaded.
- Feel clammy or cold.
- Have weakness in your arms or legs.
- Have extreme tiredness.

Get advice from your GP or contact emergency services if you experience any of the above.

9. Warm Up

It is very important before starting any exercises that you take 5 minutes to complete a full warm-up. This helps to get your muscles, joints, heart and lungs ready by raising your body temperature and ensuring blood flow to your muscles.

The warm-up exercises below should help to prepare your body for the exercise routine that follows and should last 5 minutes, or the full length of a short song. Listen to 'Here Comes the Sun' by the Beatles or 'Lean on me' by Bill Withers to get an example of the pacing.

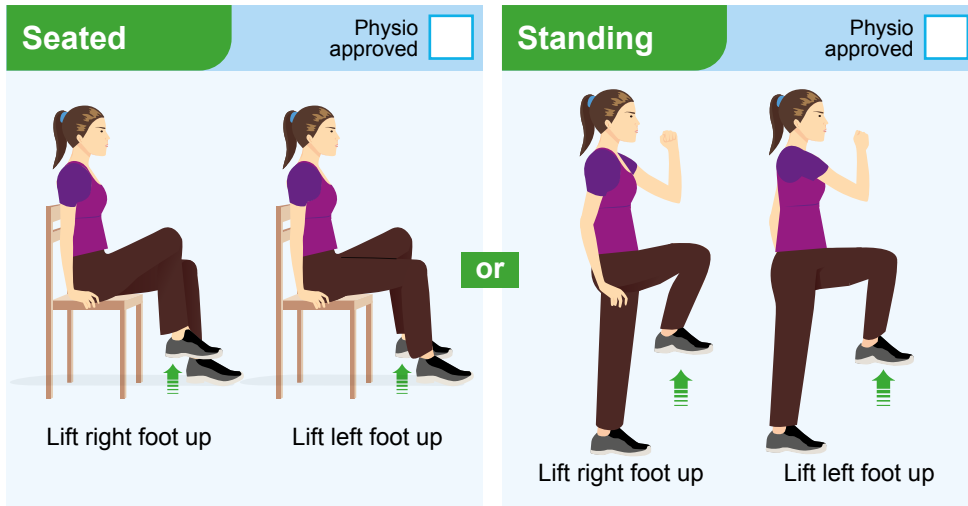
The following exercises are all part of the Warm Up. Not all the exercises have to be done, just the exercises you are familiar with from your class or your physiotherapist has marked for you. Most exercises can be done either sitting or standing. Do whatever works for you on a given day!

Warm up Exercises



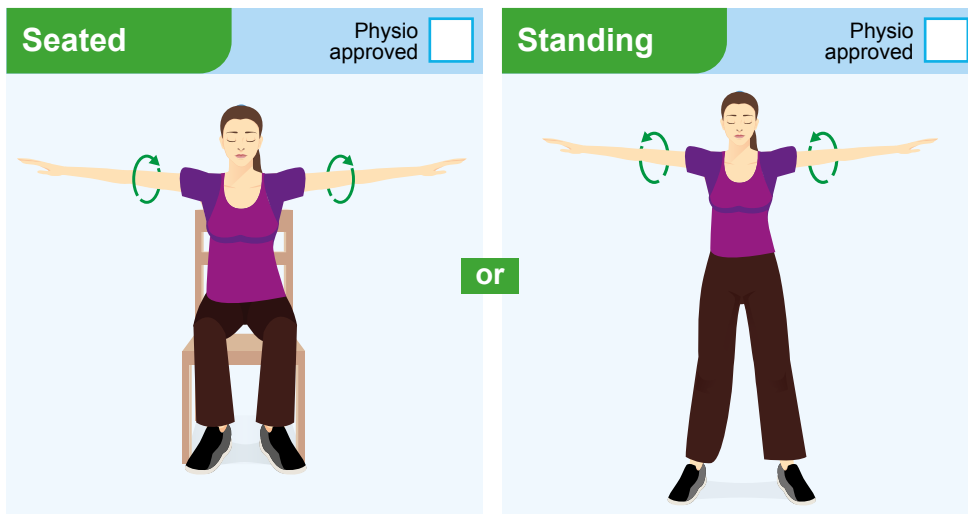
1. March on the Spot

- March on the spot, at your own pace, for approximately 30 seconds.



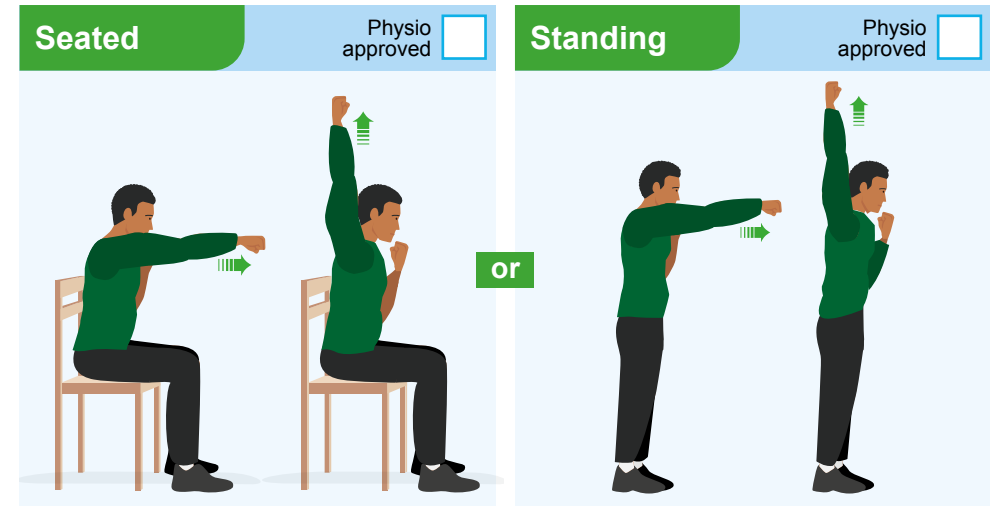
2. Arm Circles

- Hold your hands out to the side, with your elbows straight.
- Circle your arms for 30 seconds one direction then the other.



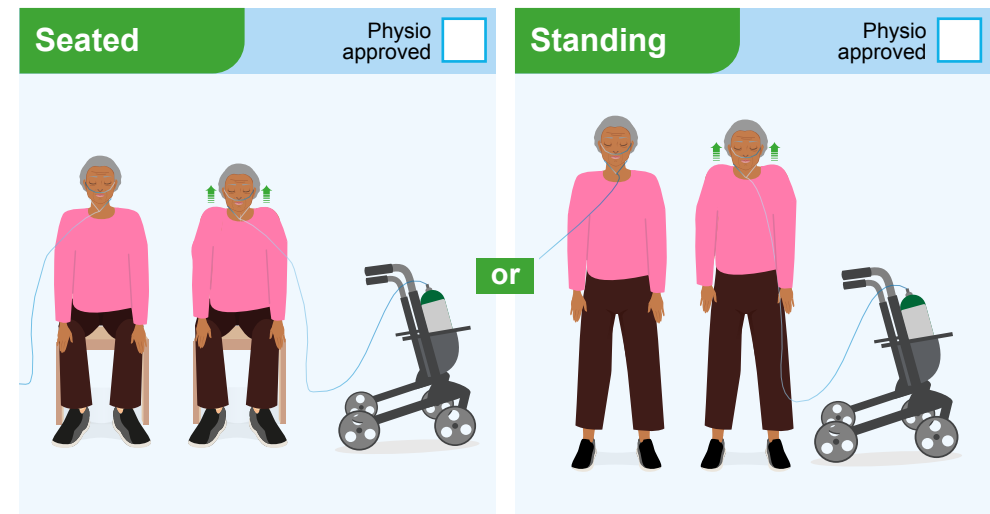
3. Arm Punches

- Punch outwards, across the body or upwards for 30 seconds.



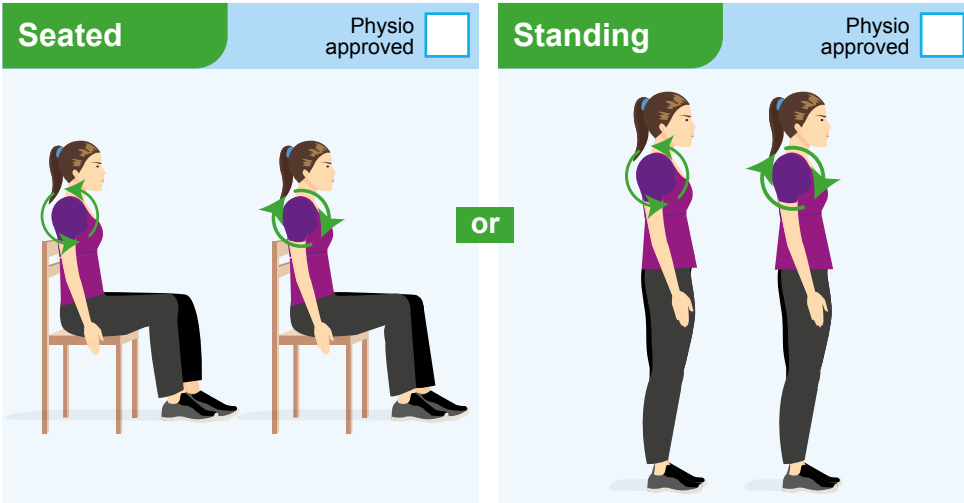
4. Shoulder Shrugs

- Shrug your shoulders up and down.
- Repeat 3 times.



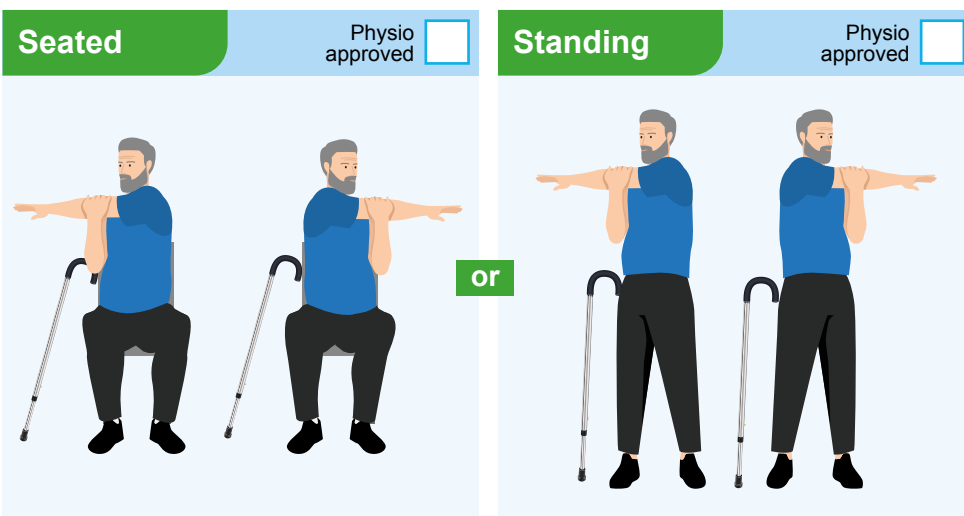
5. Shoulder Rolls - Forwards & Backwards

- Roll your shoulders forwards 3 times.
- Roll your shoulders backwards 3 times.



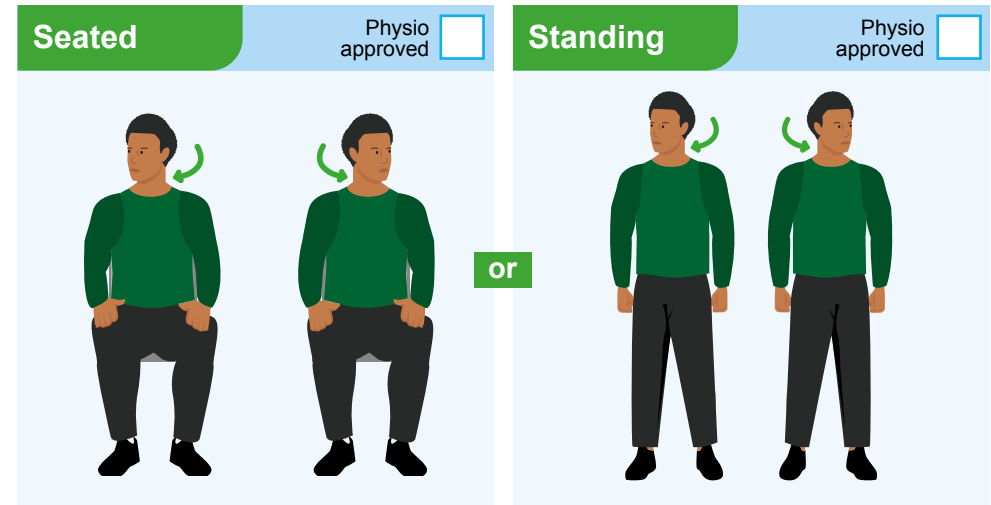
6. Upper Arm Stretch

- Cross your arm towards the opposite shoulder.
- Press gently on your elbow, hold for 10. Repeat 3 times each side.



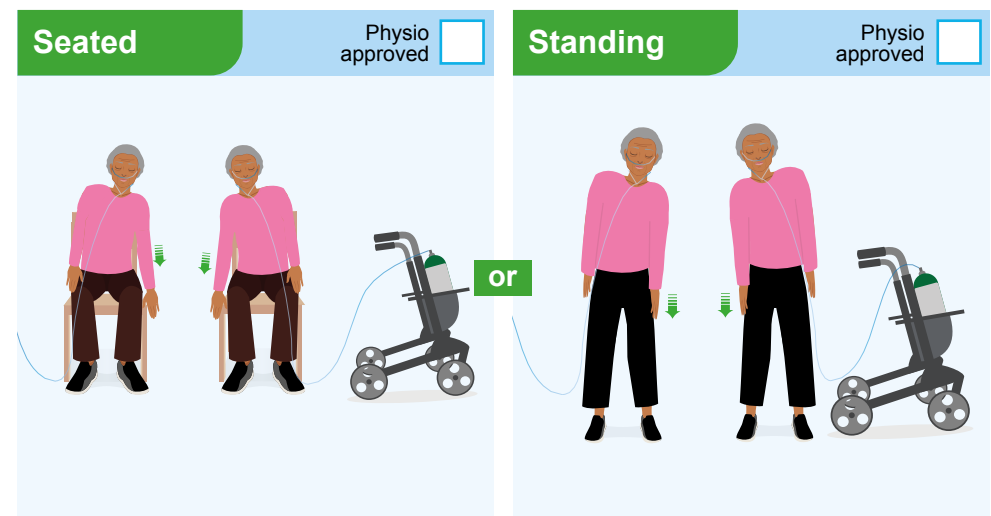
7. Neck Rotation

- Look to the left, then the right. Repeat 3 times each side.



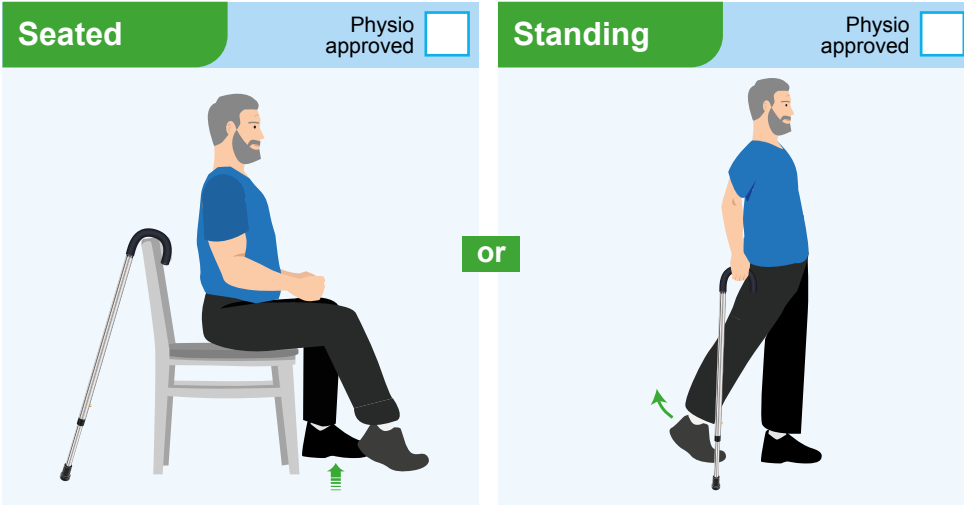
8. Side Bends

- Bend sideways down towards the floor.
- Repeat 10 times.



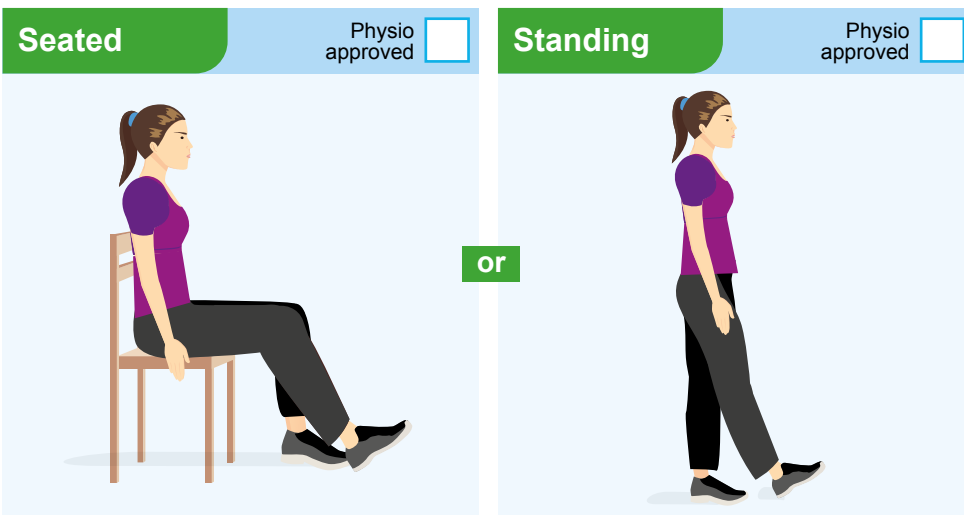
9. Toe Taps

- Tap your toes to the floor in front or behind you.
- Place your feet back together. Repeat with other leg.



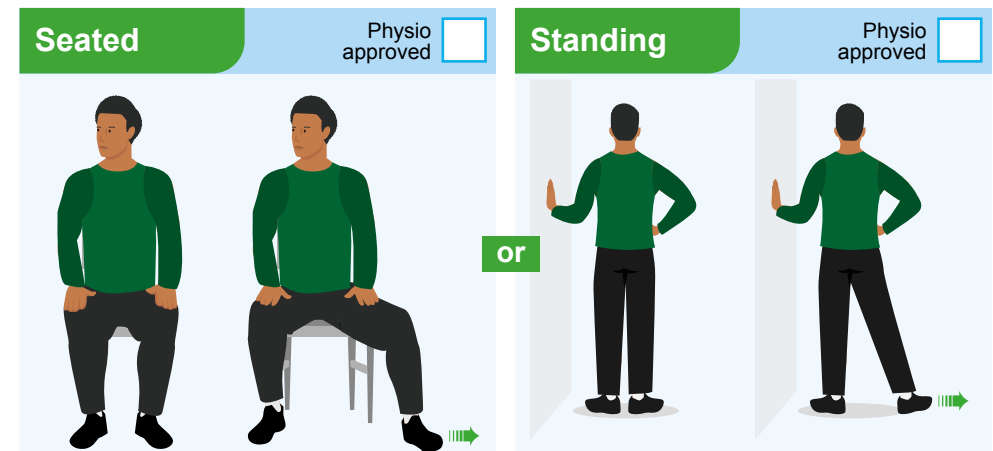
10. Heel Taps

- Tap one heel on the floor in front of you.
- Place your feet back together. Repeat with other leg.



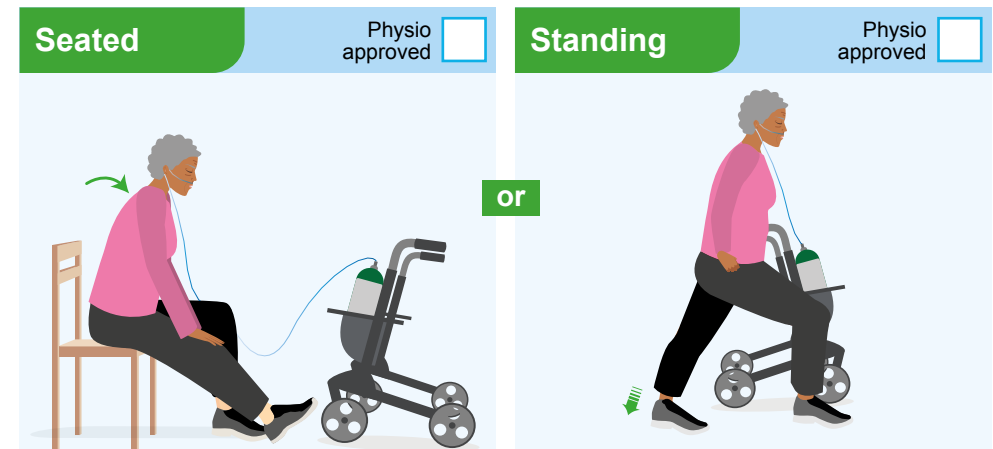
11. Side Steps

- Seated, holding onto a wall or back of a chair. Step left leg to the side, return to centre. Repeat with right leg. Repeat 10 times each leg.



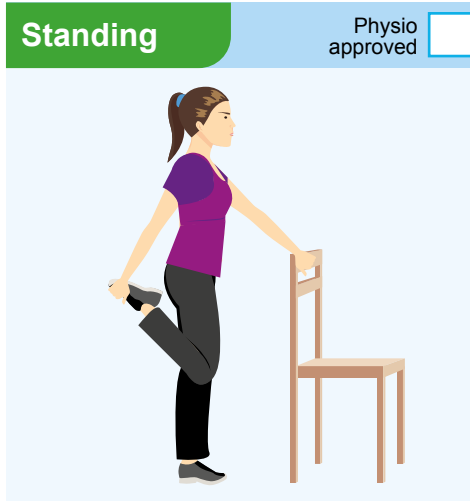
12. Calf Stretch

- Stand with your feet hip width apart holding on for support.
- Keeping your body upright step one leg behind you. Keep this back knee straight, bend the front knee and feel a stretch in your back calf. Keep both feet pointing forwards. Hold for 30 seconds. Repeat twice both legs.



13. Thigh Stretch

- Stand holding onto the back of the chair.
- Bend one knee and take hold of the ankle behind your back.
- Feel the stretch in the front of your thigh.
- Hold for 20 seconds. Repeat twice each leg.



14. Hamstring Stretch

- Sit or stand with the leg to be stretched out in front on the floor.
- Keep the leg in front straight.
- Sit back to feel a stretch in the back of your thigh.
- Repeat 2 times each leg.

Seated Physio approved



or

Standing Physio approved



Main Exercises



10. Main Exercises

10.1 Cardiovascular Exercises

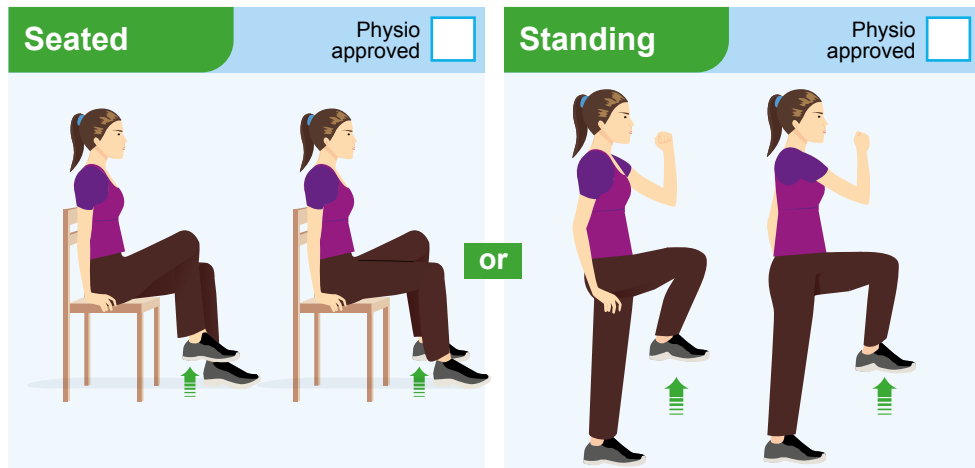
The following exercises are all part of the main exercises. Not all the exercises have to be done, just the exercises you are familiar with from your class or the physiotherapist has ticked for you.

Exercises can be done in sitting or standing.

Do whatever works for you on the day!

15. Marching

- March on the spot, at your own pace.



Exercise Professionals Comments:

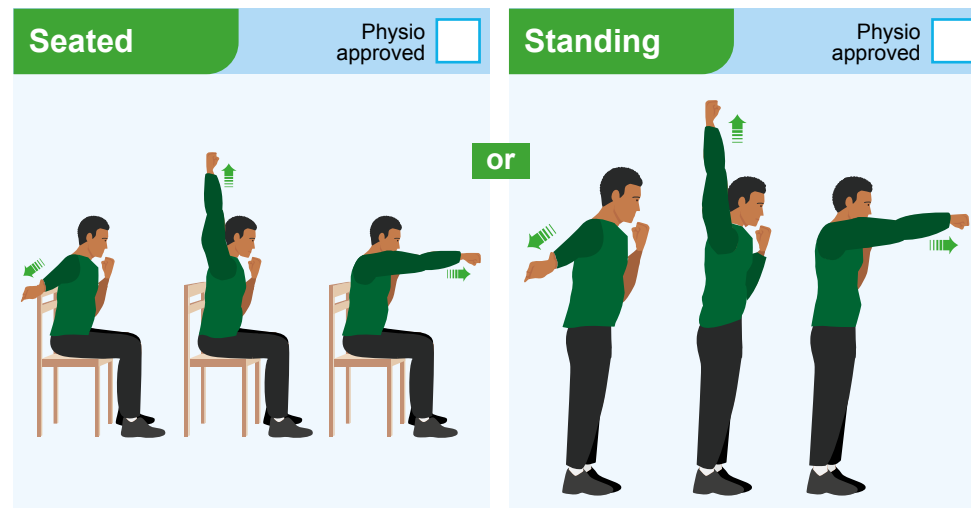
How Often:

How to progress exercise:

Reps:

16. Arm Punches

- Punch outwards, sideways and upwards.



Exercise Professionals Comments:

How Often:

How to progress exercise:

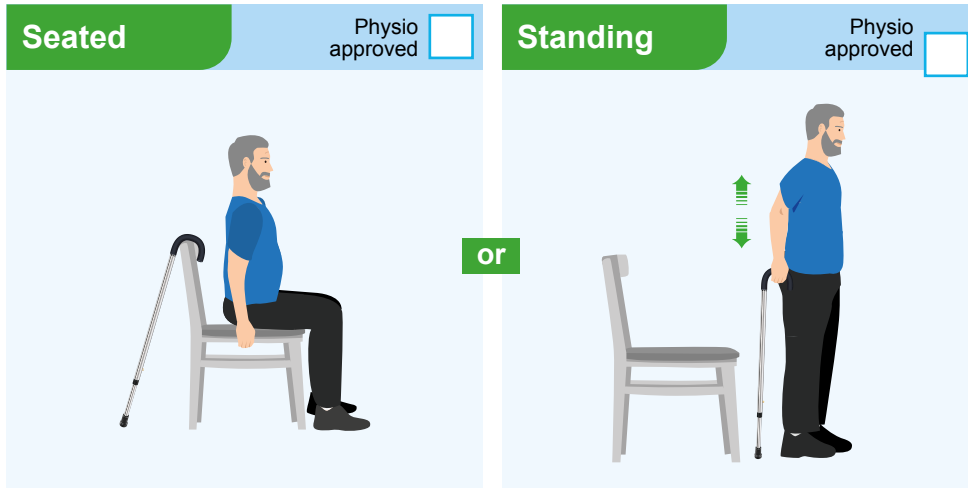
Reps:



Stop exercising if you have sudden chest pain or tightness or feel unwell

17. Sit to Stand

- Stand up from a chair slowly. Keep your feet shoulder width apart.
- Sit down slowly.



Exercise Professionals Comments:

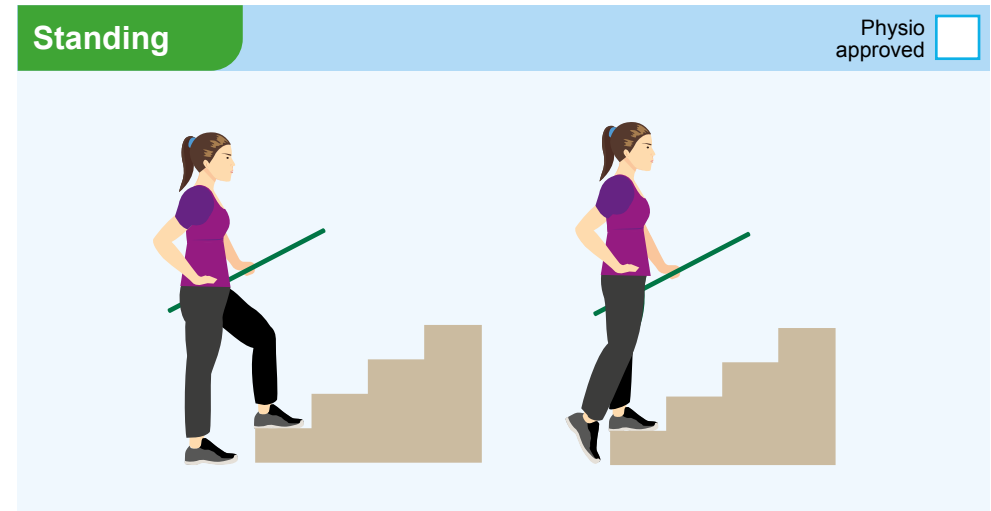
How Often:	How to progress exercise:
Reps:	



Remember your BORG score 3-4 during exercise

18. Step ups

- This can be done on the bottom step of a stairs.
- Stand in front of a step with hand support.
- Step up one foot at a time (like climbing stairs) making sure the entire foot is on the step.
- Return both feet to the ground. Repeat.



Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

19. Sit to Stand with Punches

- Combine exercises 16 and 17 above going from sitting to standing and punching out with arms on standing.

Seated/Standing Physio approved



Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

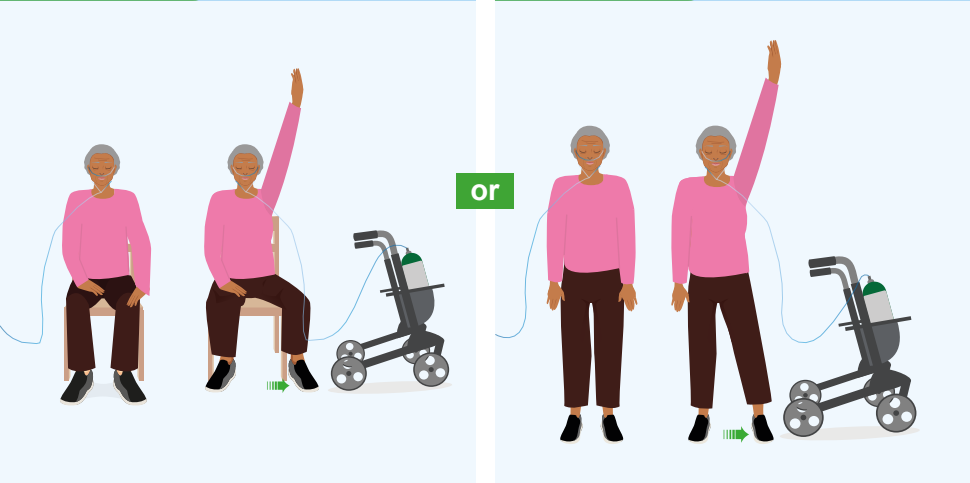


Stop exercising if you feel dizzy or lightheaded

20. Side Jacks

- Step your right foot out to the side and at the same time bring your right hand up over your head or to shoulder height.
- Step back to the middle and bring your hand back to your side.
- Repeat, alternating sides.

Seated Physio approved Standing Physio approved



Exercise Professionals Comments:

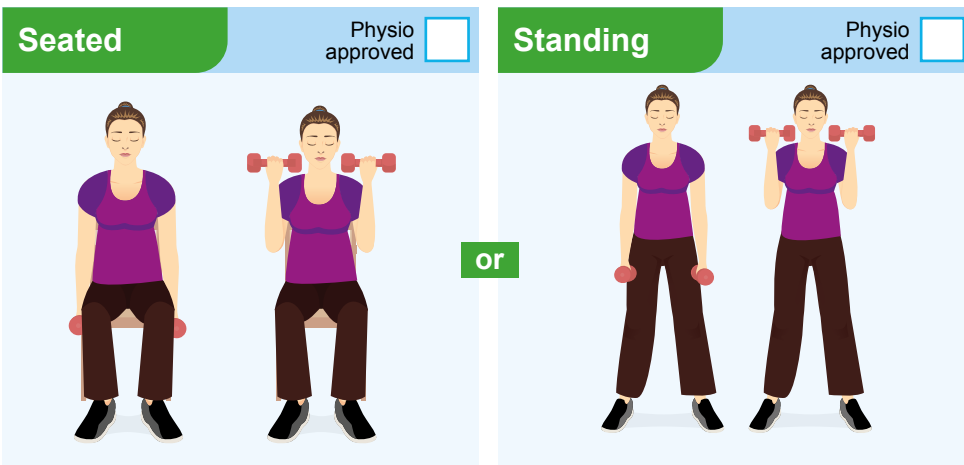
How Often:	How to progress exercise:
Reps:	

10.2 Strength Exercises

The following exercises are all part of the main exercises. Not all the exercises have to be done, just the exercises you are familiar with from your class or the physiotherapist has ticked for you. Exercises can be done in sitting or standing. Do whatever works for you on the day!

21. Bicep Curls

- Hold weight at your side, with elbows close to your body.
- Curl arm towards your shoulder ensuring your elbows stay at your side.
- Slowly lower back down.
- This can be done with both arms together or alternating arms.

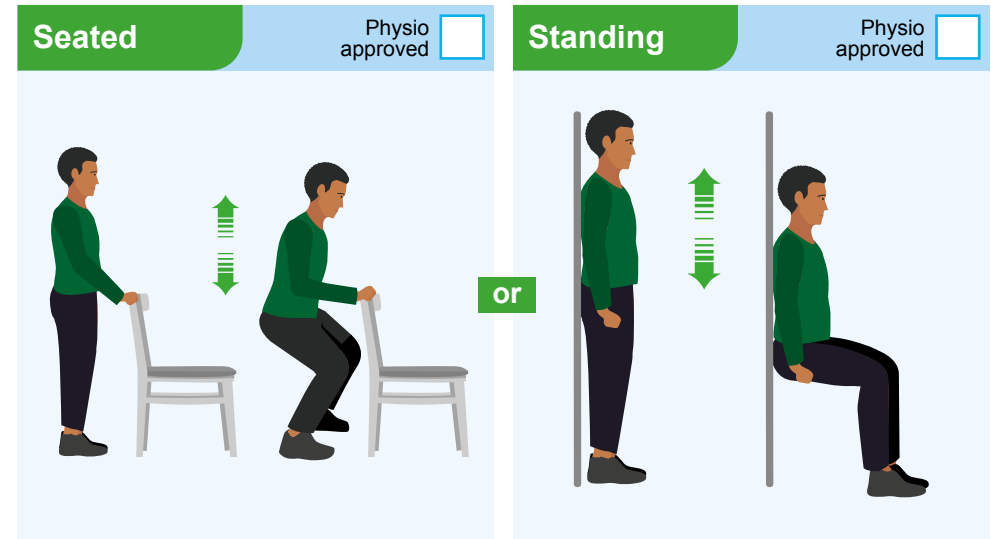


Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

22. Half/Mini Squats

- Lean your back against a wall or hold a chair.
- Bend your knees slightly keeping your back straight.
- Straighten back up.
- Slide up the wall to a standing position.



Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	



Remember your BORG score 3-4 during exercise

23. Arms Wings

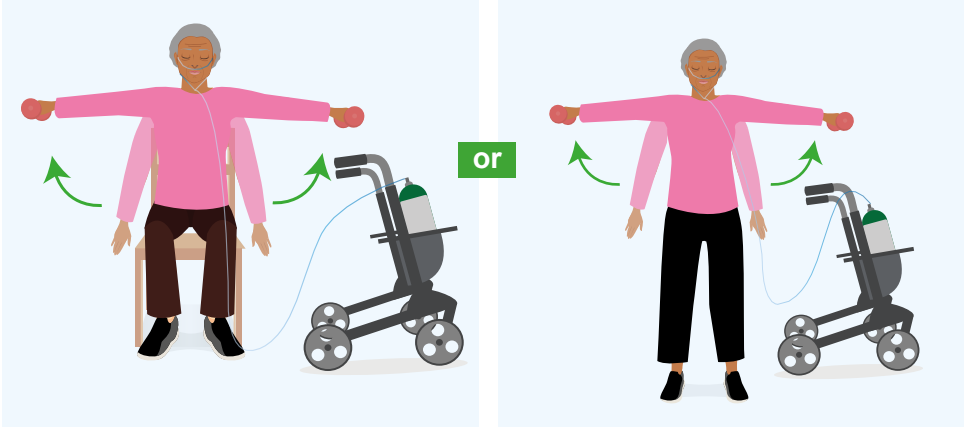
- Place a weight in each hand at your side.
- Lift both arms out to the side, to shoulder height and then lower again.

Seated

Physio approved

Standing

Physio approved



Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	



Remember your BORG score 3-4 during exercise

24. Knee Strength

- Sit tall in a chair with your back well supported & feet on the floor.
- Straighten our right leg fully and bring your toes up towards you.
- Hold for 5 seconds.
- Lower the leg slowly.
- Repeat 10 times per leg.

Seated

Physio approved

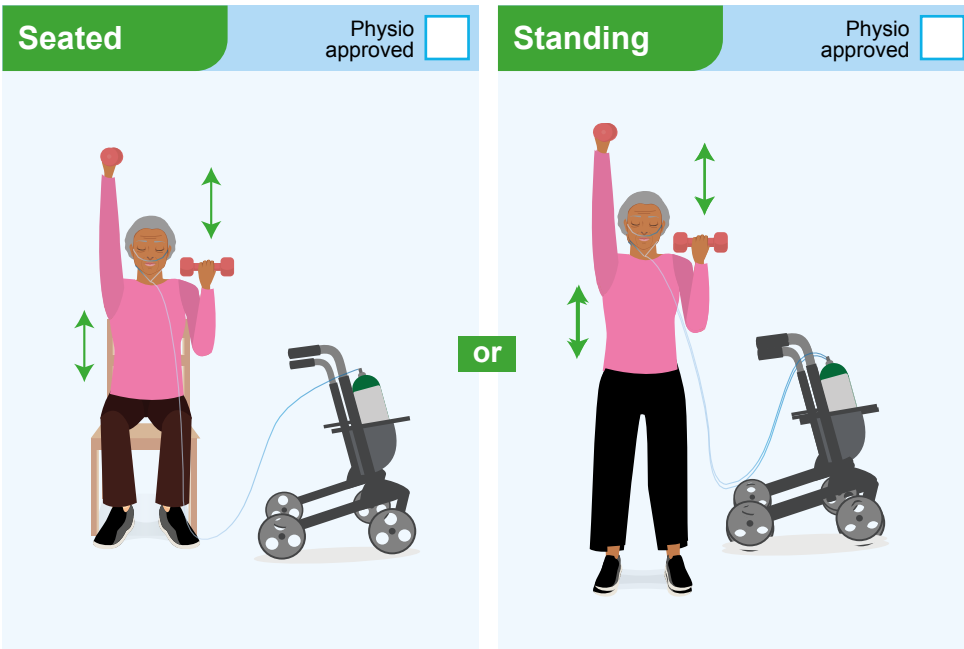


Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

25. Overhead Press

- Hold a weight securely in each hand.
- Lift one arm over your head at a time.
- Replace to starting position.
- Repeat 10 - 15 times, on each side.

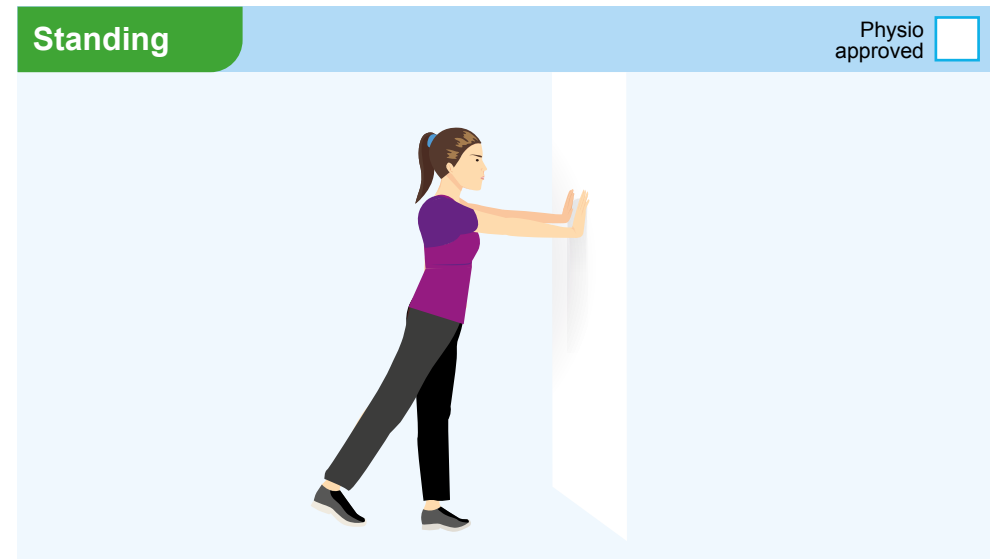


Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

26. Hip Extension

- Stand with your right leg slightly behind you, resting the ball of your foot on the ground.
- Keep your knee straight. Gently lift your right foot one inch off the ground behind you. Keep your body upright and your leg straight.
- Pause for a moment, then slowly lower your leg back down again. Repeat with your other leg.

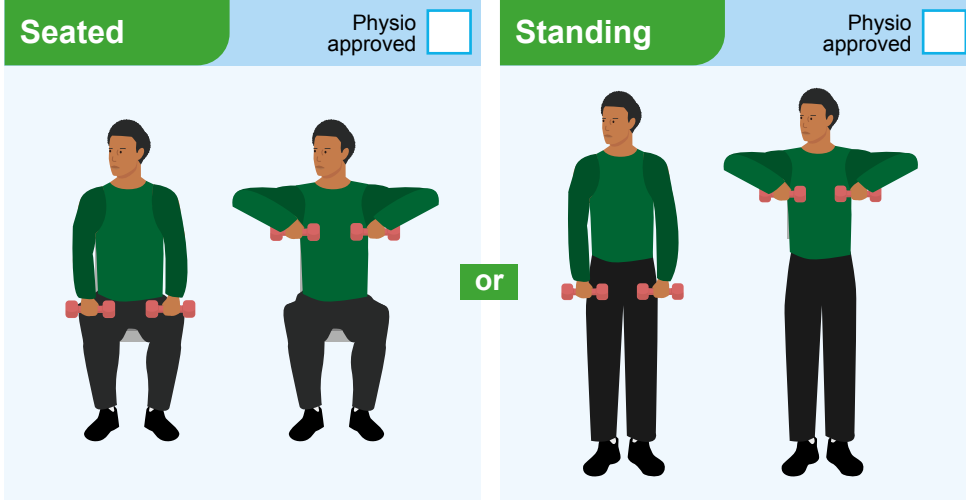


Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

27. Upright Row

- Start with a weight in each hand.
- Keeping your back straight and your head up, slowly bring the weights up along the side of your body towards your armpits so that they are in front of your shoulders.
- Slowly lower down again so they are by your sides. Repeat.

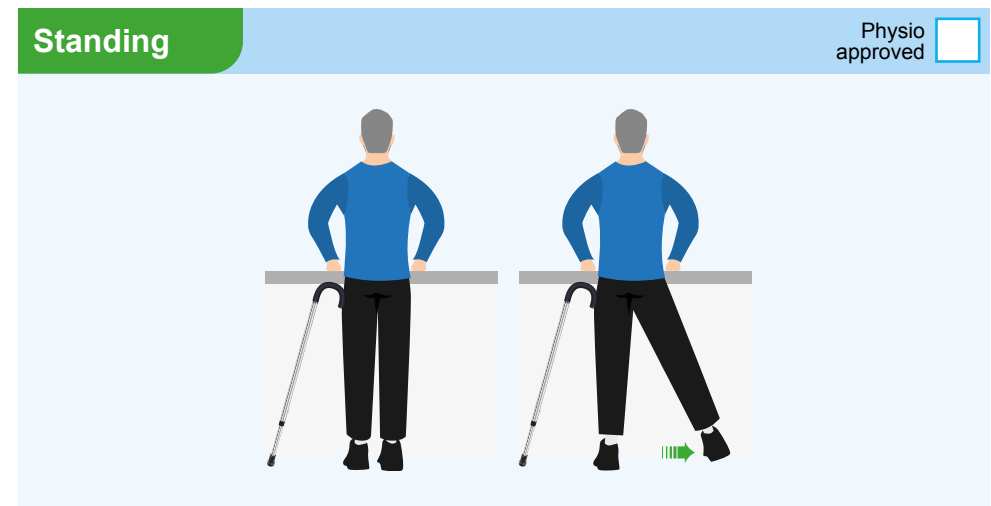


Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

28. Hip Strengthening

- Stand tall in front of your kitchen counter or the back of a sturdy chair and hold on with both hands.
- Standing on your left leg, keep your right leg straight and your right foot facing forward.
- Lift your right leg out to the side slowly.
- Return your right leg to the starting position slowly.
- Repeat 10-15 times on each side.

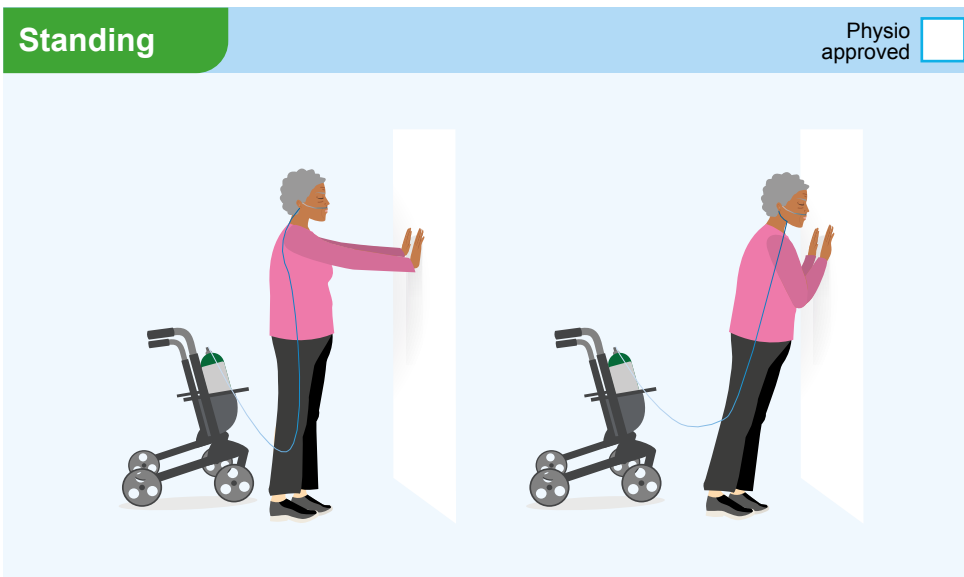


Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

29. Wall Push Up

- Stand facing a wall with feet shoulder width apart. Leaning towards the wall place hands at shoulder height.
- From the start position, bend your elbows moving your body towards the wall. Slowly push away from wall and return to the starting position.
- Ensure to keep body straight throughout.

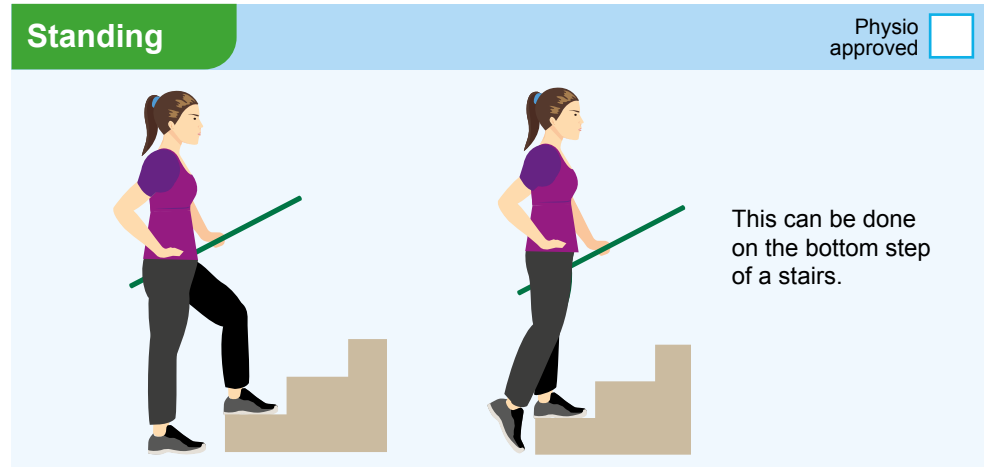


Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

30. Step Ups

- Stand in front of a step with hand support.
- Step up one foot at a time (like climbing stairs) making sure the entire foot is on the step.
- Return both feet to the ground. Repeat.
- This activity can be a strength or an aerobic exercise.



Exercise Professionals Comments:

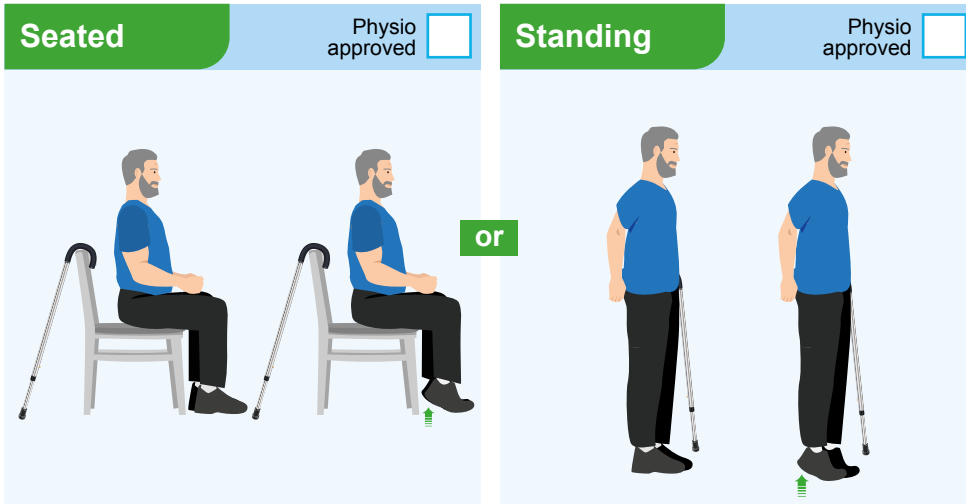
How Often:	How to progress exercise:
Reps:	



Stop exercising if you feel clammy or cold, have weakness in your arms or legs or experience extreme tiredness.

31. Heel Raises

- Gently rise up on your toes then return foot back down to the floor. Repeat 3 times.



Exercise Professionals Comments:

How Often:	How to progress exercise:
Reps:	

Cool down Exercises



11. Cool Down

Cooling down gradually will help your body recover from exercise, returning your heart rate and breathing back to normal levels. A cool down will normally last for 5 minutes, but you may have to reduce this down or add rest periods to what you can manage.

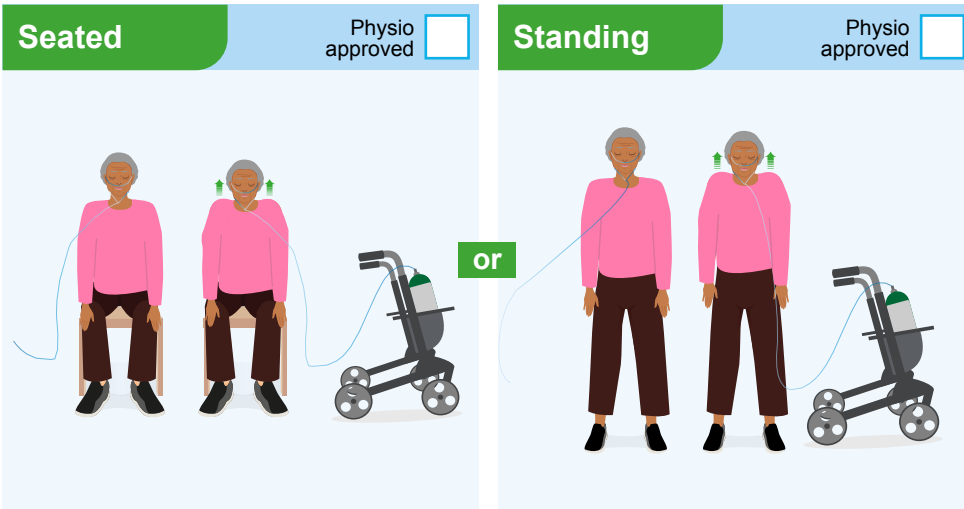
Walk around your room for 2 minutes at a slow pace or march slowly on the spot.

Hold all stretches for a count of 30 seconds.

The following exercises are all part of the Cool down. Not all the exercises have to be done, just the exercises you are familiar with from your class or your physiotherapist has ticked. Exercises can be done in sitting or standing. Do whatever works for you on the day!

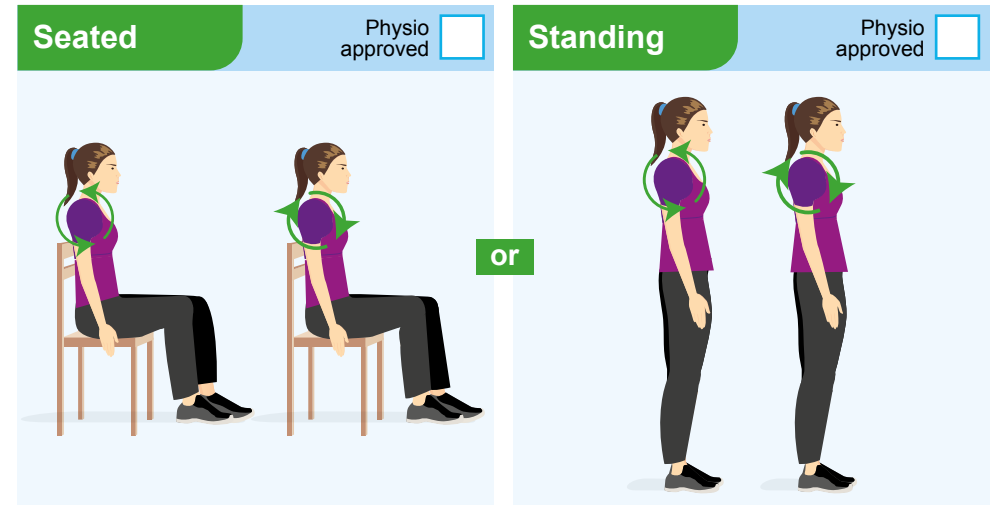
32. Shoulder Shrugs

- Shrug your shoulders up and down.
- Repeat 3 times.



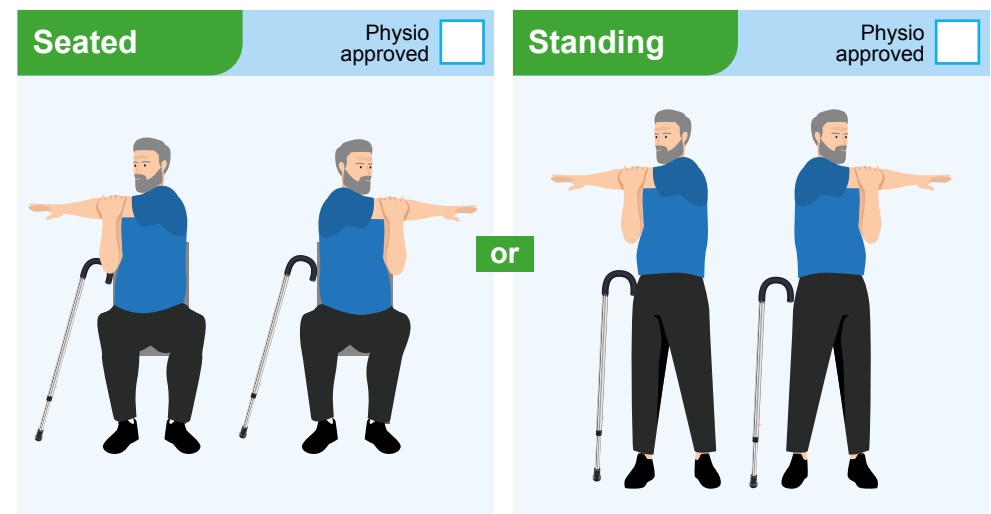
33. Shoulder Rolls

- Roll your shoulders forwards 3 times.
- Roll your shoulders backwards 3 times



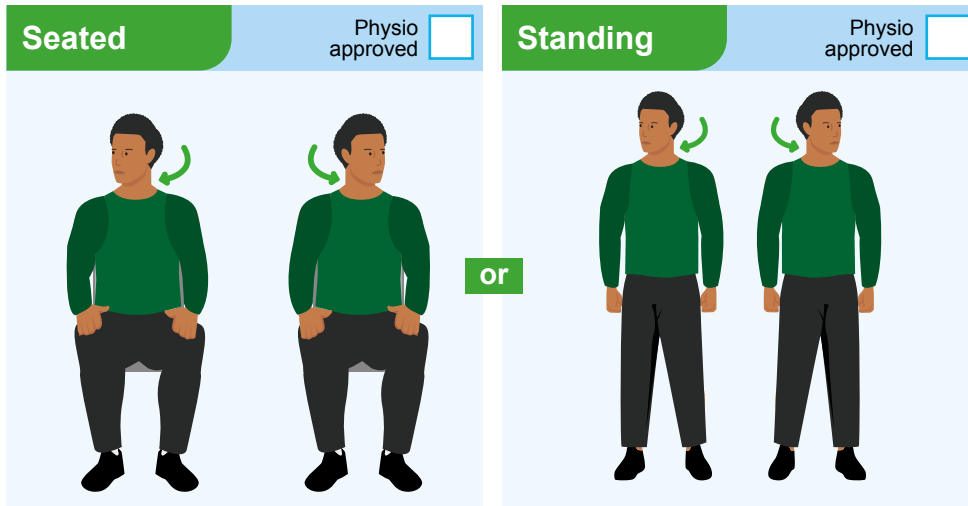
34. Upper Arm Stretch

- Cross your arm towards the opposite shoulder.
- Press gently on your elbow, hold for 10. Repeat 3 times each side.



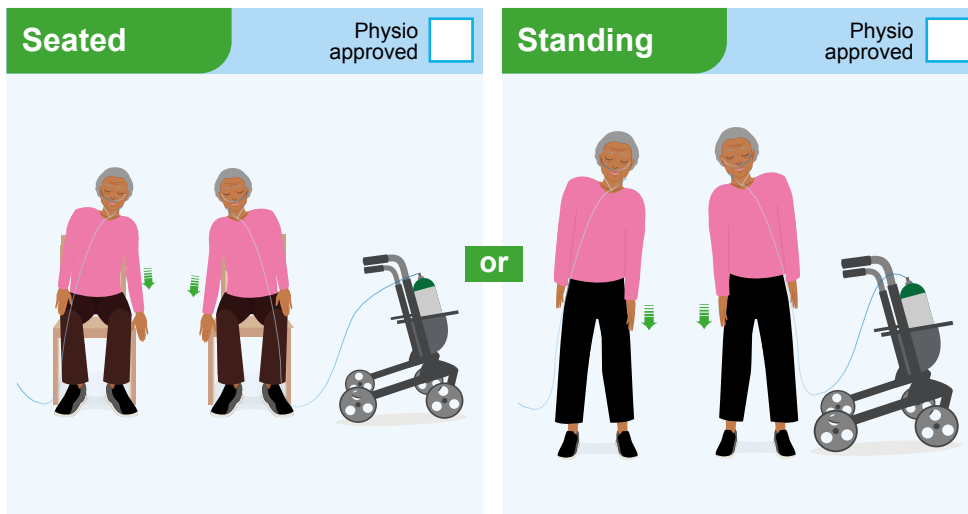
35. Neck Rotation

- Look to the left, then the right. Repeat 3 times each side



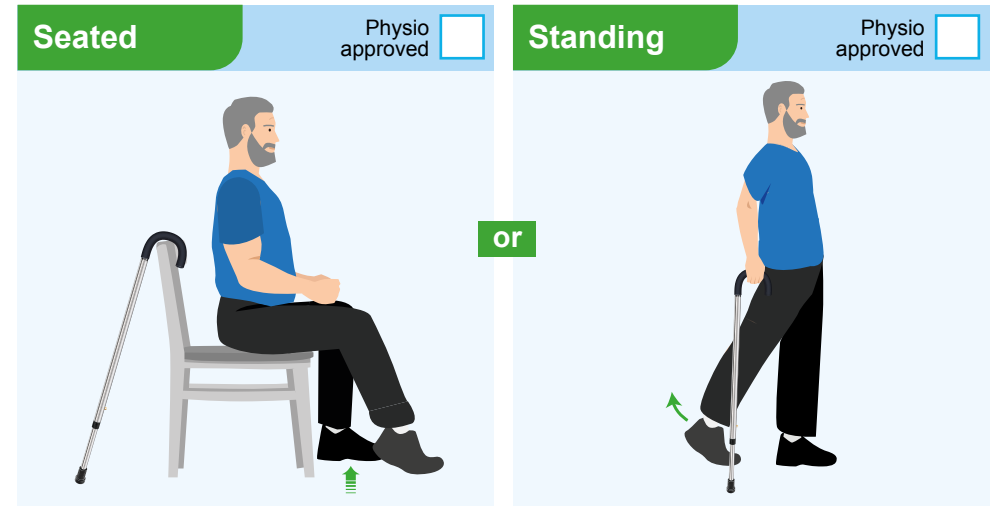
36. Side Bends

- Bend sideways down towards the floor
- Repeat 10 times



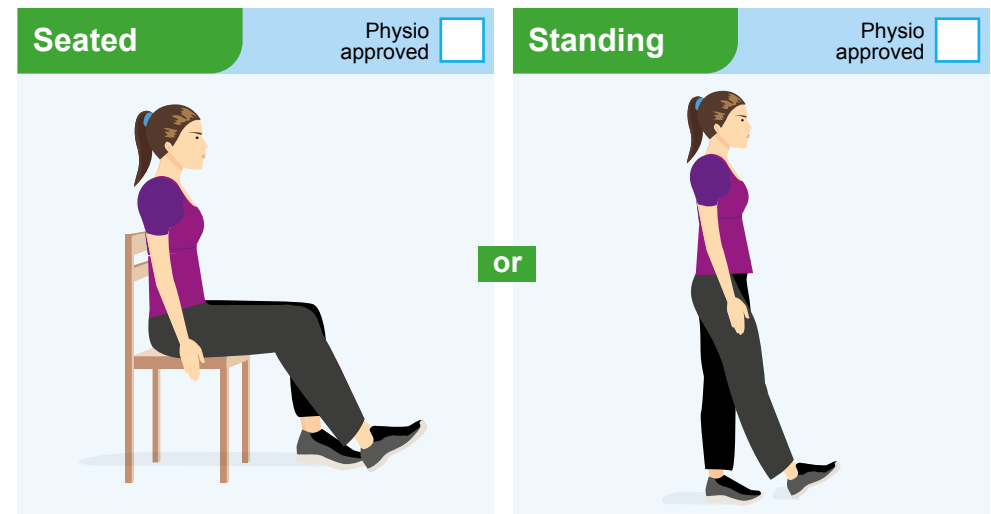
37. Toe Taps

- Tap your toes to the floor in front or behind you.
- Place your feet back together. Repeat with other leg.



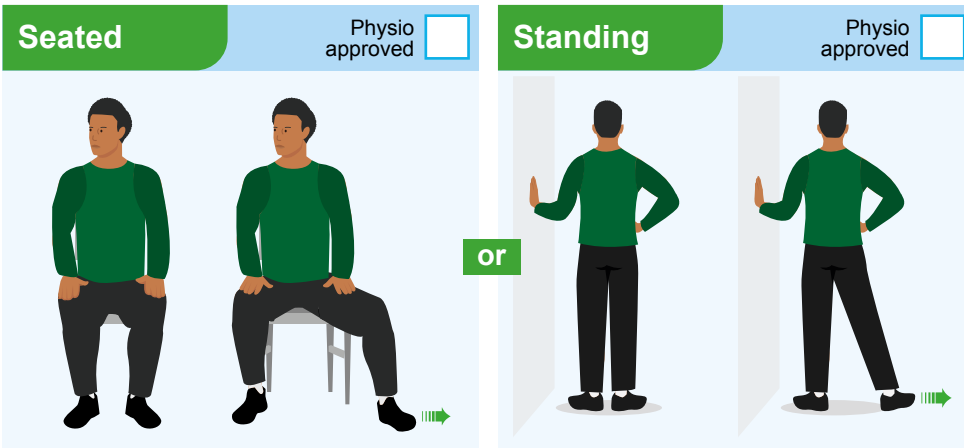
38. Heel Taps

- Tap one heel on the floor in front of you.
- Place your feet back together. Repeat with other leg



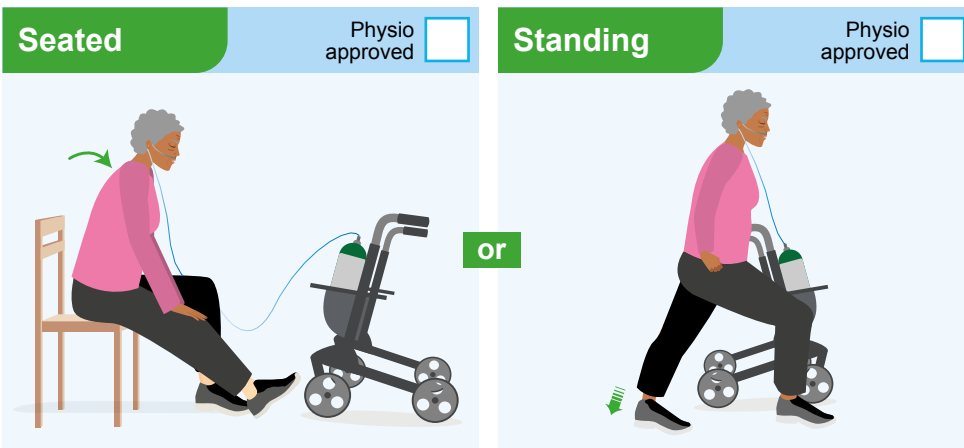
39. Side Steps

- Seated, holding onto a wall or back of a chair. Step left leg to the side, return to centre. Repeat with right leg. Repeat 10 times each leg.



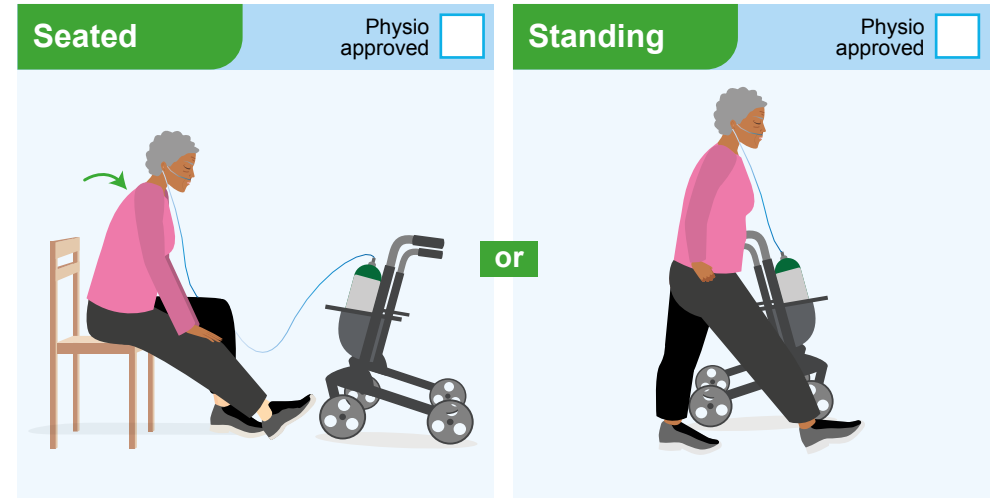
40. Calf Stretch

- Stand with your feet hip width apart holding on for support.
- Keeping your body upright step one leg behind you. Keep this back knee straight, bend the front knee and feel a stretch in your back calf. Keep both feet pointing forwards. Hold for 30 seconds. Repeat twice both legs.



41. Hamstring Stretch

- Sit or stand with the leg to be stretched out in front on the floor
- Keep the leg in front straight
- Sit back to feel a stretch in the back of your thigh.
- Repeat 2 times each leg.



! Stop performing these exercises if you experience pain or you feel unwell.

12. Walking Plan

BORG 3-4

TIME: _____

Notes:



13. Diary

Date:	Goal for the week:
--------------	---------------------------

Exercise Completed. Place numbers in box.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Walking time/distance:

Date:	Goal for the week:
--------------	---------------------------

Exercise Completed. Place numbers in box.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Walking time/distance:

Date:	Goal for the week:
Exercise Completed. Place numbers in box.	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Walking time/distance:	

Date:	Goal for the week:
Exercise Completed. Place numbers in box.	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Walking time/distance:	

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Exercise Completed. Place numbers in box.	
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Tuesday	
Wednesday	
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Friday	
Saturday	
Sunday	
Walking time/distance:	

Date:	Goal for the week:
Exercise Completed. Place numbers in box.	
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Sunday	
Walking time/distance:	

Date:	Goal for the week:
Exercise Completed. Place numbers in box.	
Monday	
Tuesday	
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Friday	
Saturday	
Sunday	
Walking time/distance:	

Date:	Goal for the week:
Exercise Completed. Place numbers in box.	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Walking time/distance:	

Disclaimer

It is your responsibility to undertake these exercises safely. Stop performing these exercises if you experience pain or you feel unwell. The authors and advisors, who have created this booklet, accept no liability for injury caused as a result of doing these exercises.

Notes

14. Borg Scale



**Please ensure
your BORG score
is no more than 3-4
while carrying out
all exercises**

0	Nothing at all
0.5	Very, very slight (just noticeable)
1	Very slight
2	Slight
3	Moderate
4	Somewhat severe
5	Severe
6	
7	Very severe
8	
9	Very, very severe
10	Maximal



**BORG Score of 3-4
= Safe Exercise Zone**

14. Borg Scale

0	Nothing at all
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**BORG Score of 3-4
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