



**Royal Berkshire NHS Foundation Trust
Berkshire Healthcare NHS Foundation Trust**

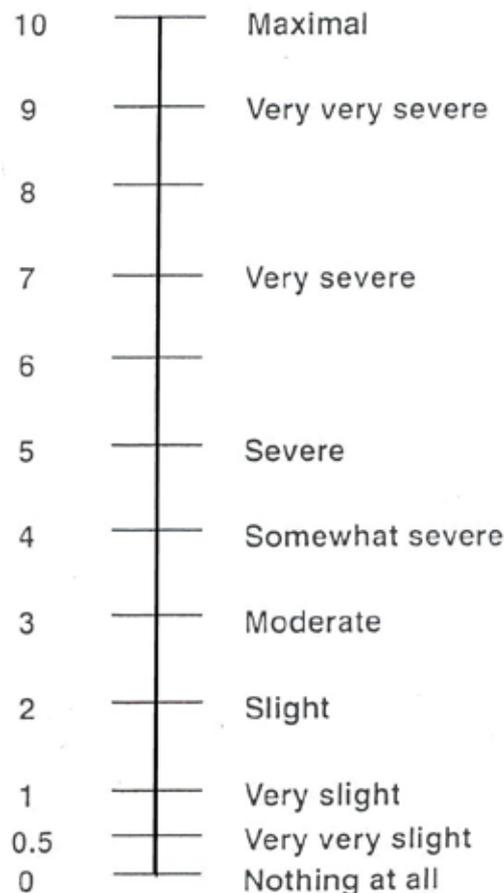


Pulmonary Rehabilitation

Exercise programme

Introduction to exercises

- Wear sensible shoes and loose clothing.
- When performing the exercises, make sure you have sufficient space to do them.
- Take sips of water between the exercises.
- Start with the **warm up exercises**.
- You should expect to get breathless when you are performing the **main exercises**.
- Use the Borg scale (below) to monitor your breathlessness: You should be aiming for a score of 3-4.



- At the end of the main exercises, do the **stretching exercises**.

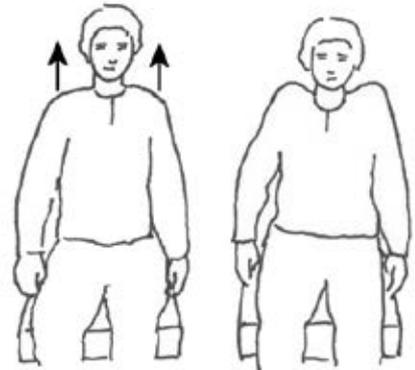
Warm up exercises

All the warm up exercises must be performed at the beginning of **each** exercise session. The exercises are performed whilst **standing**, with your arms relaxed by your side, unless otherwise stated.

Repeat all exercises **four times**, and remember to use your **breathing control** throughout the exercises.

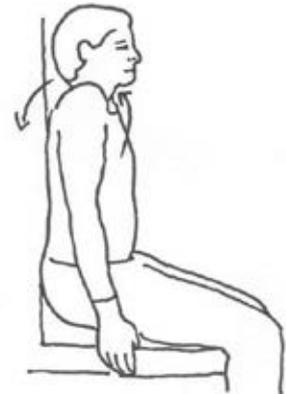
1. Shoulder elevation

- Raise your shoulders slowly up towards your ears, and down again.
- Breathe in as you raise your shoulders and breathe out as you let your shoulders down.



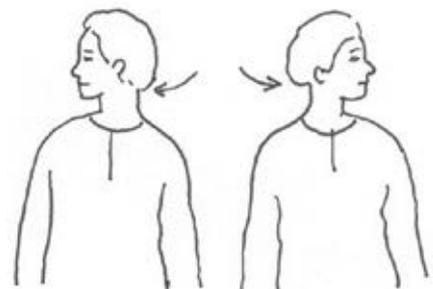
2. Shoulder circling

- With your arms at your side, **slowly** circle your shoulders backwards.
- **Slowly** circle your shoulders forward.
- Don't forget to breathe as you exercise.



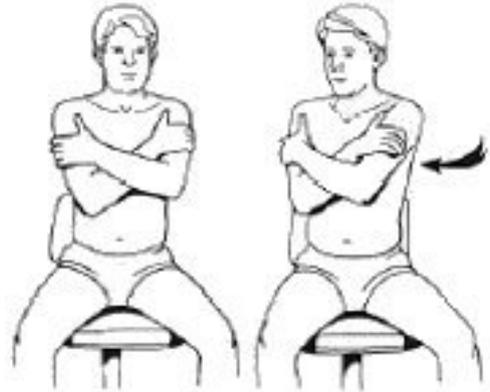
3. Head rotations

- Slowly turn your head to look over one shoulder, whilst breathing in.
- Slowly bring your head back to centre, whilst breathing out.
- Repeat the exercise, turning your head to the opposite shoulder.



4. Trunk rotations

- Can be done in standing or sitting
- Place your hands across your chest.
- Keep your hips and knees facing forwards.
- Breathe **out** whilst twisting your shoulders around as far as possible to your right, to look over your right shoulder.
- Breathe **in** as you return to the centre.
- Repeat, twisting around to look over your left shoulder.



5. Side bends

- Stand with your feet hip width apart and your arms by your side.
- Slide your right hand down towards your knee until you feel a stretch on the opposite side.
- Do not lean forwards or backwards.
- Return to standing and repeat on the opposite side.



6. Heel digs

- In standing tap one heel on the floor in front of you.
- Place your feet back together and repeat with the other leg.

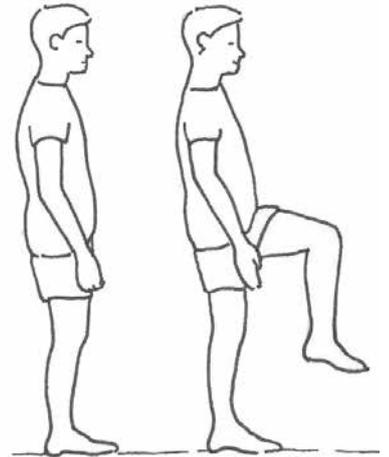
Timed for 1 minute.



7. Knee lifts

- In standing, slowly lift one knee up, to no higher than your hip, then slowly lower down.
- Repeat with the other leg.

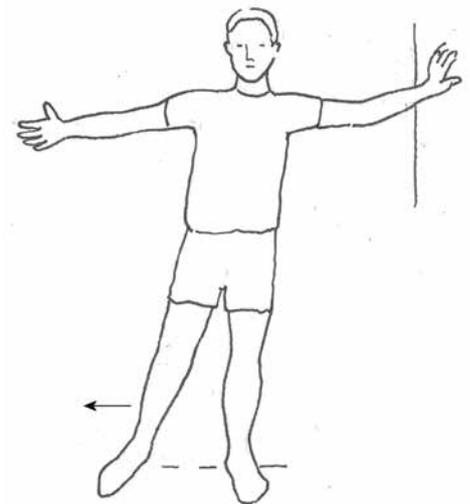
Timed for 1 minute.



8. Toe taps to the side

- In standing, using a chair for balance if needed.
- Tap your right foot out to the side.
- Bring it back to join the other leg.
- Repeat with left leg.

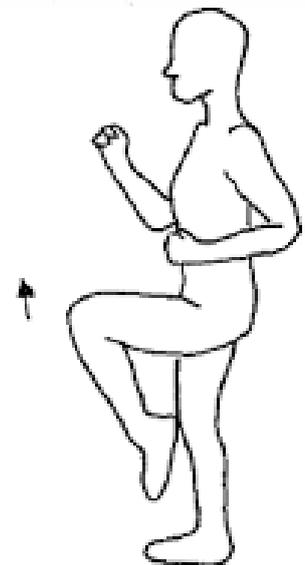
Timed for 1 minute.



9. Marching on the spot

- Stand up straight with feet hip width apart.
- Lift knees up and down at a gentle pace.
- Breathe rhythmically.

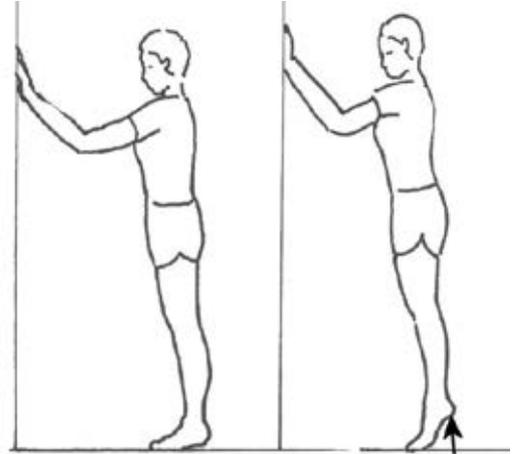
Timed 1 minute.



Main exercises

10. Heel lifts

- Stand up straight, with your feet hip-width apart and your weight balanced evenly.
- Rest your hands on a firm surface for support.
- Lift up onto the balls of your feet.
- Hold for a count of 1.
- Gently lower down until your feet are flat on the floor once more.
- Repeat, gradually working up to hold for a count of 4.
- Don't forget to breathe.



Repeat x 10 x 3 sets.

11. Bicep curls

- Sitting with your elbows by your side and keeping your back straight.
- Hold a weight in each hand.
- Bend one arm towards your shoulder whilst breathing out.
- Whilst breathing in, slowly lower your arm until the elbow is straight.
- Repeat with the opposite arm.
- Progress to doing the exercise whilst standing and by increasing the weight.



Repeat x 10 x 3 sets.

12. Marching on the spot

- Stand up straight with feet hip width apart.
- Lift knees up and down.
- Breathe rhythmically.
- If you can do this easily, add arm swinging to the move.

Timed: aim to build up to 5 minutes.



13. Sit to stand

- Sit slightly forward on a firm chair.
- Make sure your feet are under your knees.
- Fold your arms.
- Breathe in.
- Whilst breathing out, lean forwards and stand up.
- Stand up straight and breathe in.
- **Slowly** sit down again whilst breathing out.

Repeat x 10 x 3 sets.



14. Bending

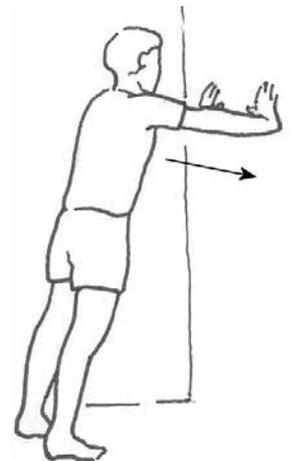
- In a sitting position, bend forward slowly, breathing out as you stretch down.
- Breathe in as you come back up to the sitting position.
- Walk your hands back up your legs to prevent extra strain on your back.



Only do this exercise 3-5 times.

15. Arm press-ups

- Stand facing a wall, approximately 15-20cm away.
- Place your hands flat on the wall at chest level.
- Breathe in.
- Breathe out and slowly lower your face and chest towards the wall, by bending your elbows.
- Breathe in.
- Breathe out and push back to the standing position.



16. Step ups

- If you have stairs, use the bottom step.
- If you don't have stairs, use a **very** stable step.
- If you are unsteady, hold onto a rail.
- Step up with your right leg
- Step up with your left leg to join the right
- Step down off the step, one leg at a time
- It is important to breathe rhythmically and to not



hold your breath.

Timed: build up to 5 minutes.

17. Knee extensions

- Sitting on a chair with your feet side by side.
- Straighten one leg out in front of you and hold for a few seconds.
- Slowly lower your foot back to its starting position.
- Repeat on the other leg.
- Progress to using ankle weights.

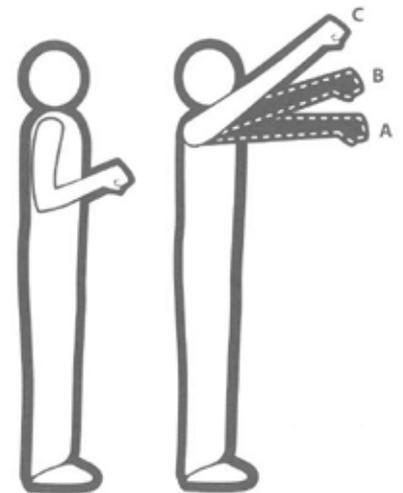
Repeat x10 x 3 sets.



18. Shoulder press

- Sit or stand with your arms by your side.
- Hold a walking stick or weights in your hands.
- Bring the stick / weights up to your chest.
- Now straighten your arms out in front of you.
- Bring your hands back to your chest.
- Finally bring your hands back to your sides.
- Repeat this action going a little higher each time.
- Breathe IN as you bend your arms up.
- Breathe OUT as you take your arms forward.

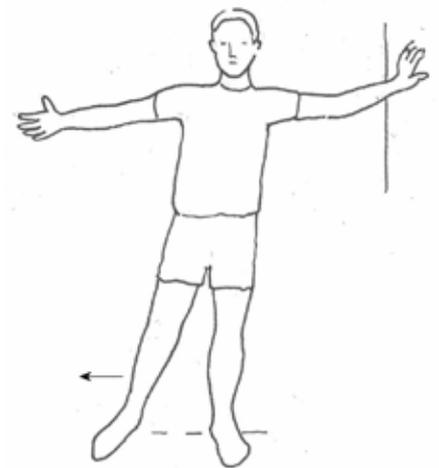
Repeat x 10 x 3.



Star Jacks

- Stand with your feet hip width apart.
- Hold onto a wall for support if you need to.
- Slowly slide your right foot out to the side while lifting your right arm up to shoulder height.
- Bring your arm and leg back into the middle and repeat on the other side.

Timed: Build up to 5 minutes.



19. Wall Squats

- Stand with your back against a wall, with your feet slightly apart.
- Move your feet forward about a foot from the wall.
- Keeping your back against the wall, slowly bend your knees as far as you feel comfortable.
- As you bend your knees your back will slide down the wall (make sure your hips stay higher than your knees and your whole back remains in contact with the wall).
- Pause for a moment then slowly straighten your knees – sliding back up the wall and returning to the starting position.

Repeat x 10 x 3.



20. Walking

Brisk walking programme. Your physiotherapist will advise you on the walking speed to gain maximal benefit. **Aim to build up to 20 minutes continuous walking.**

21. Static bike

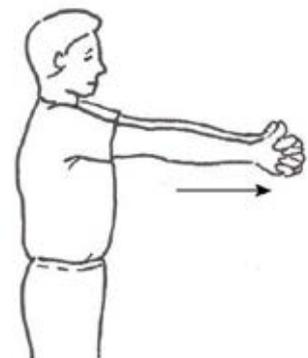
Your physiotherapist will assess your starting resistance and time. **Aim to build up to 10-15 minutes continuous cycling.**

Stretching exercises while standing

Don't forget to breathe rhythmically whilst performing these stretching exercises – **do not** hold your breath.

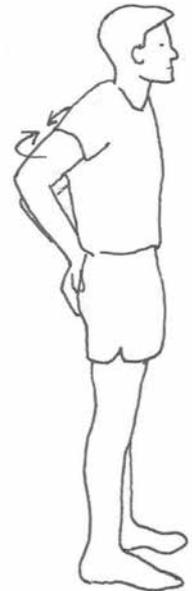
Shoulder / back stretch

- Stand upright.
- Clasp your hands together in front of you with your knuckles outwards.
- Stretch your arms out in front.
- Feel the stretch around your shoulders and back.
- Hold for 10-20 seconds.



Chest stretch

- Stand upright.
- Place your hands on your lower back.
- Squeeze your shoulder blades together, keeping your elbows bent.
- Hold for 10-20 seconds.



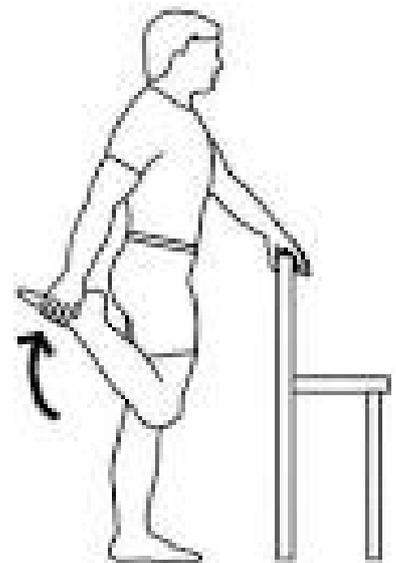
Side stretch

- Stand with your feet hip-width apart and your arms by your sides.
- Slide your right hand down towards your knee until you feel a stretch on the opposite side.
- Do not lean forwards or backwards.
- Hold for 10 seconds.
- If possible, take your left hand up and over your head and stretch for another 10 seconds.
- Return to standing and repeat on the opposite side.



Quadriceps stretch

- Holding a chair / wall for support.
- Bend your right leg up behind you and hold onto either your ankle or back of your trousers.
- Try to take your foot towards your bottom and your knees together.
- You should feel a stretch at the front of the thigh.
- Return to normal position and relax.
- Repeat with the other leg.



Back of arm/side stretch

- Sit upright with a straight back.
- Place one hand on the shoulder on the same side.
- Use your other hand to lift the elbow up towards your head.
- You should feel a stretch in the back of your arm.
- Then straighten the arm and stretch to the ceiling.
- You should feel the stretch down the side of your body.
- Hold for 10 seconds.
- Lower your arm gently and repeat on the other side.



Calf stretch

- Sit forward in a chair with your back straight.
- Stretch one leg up straight in front of you (keeping foot on floor).
- Keep your other leg bent.
- Stretch the toes of your straightened leg towards you.
- Hold for 10 seconds.
- Return leg to floor and repeat with other leg.



Hamstring stretch

- Sit forward in a chair with your back straight.
- Stretch one leg up straight in front of you with the foot on the floor and relaxed.
- Put both your hands on your other leg, which should be still bent.
- Lean forwards from the hip, supporting your weight on your hands.
- You should feel a stretch at the back of the thigh of the straightened leg.
- Hold for 10 seconds.
- Return to normal position and relax.
- Repeat with other leg.



To get the most benefit from doing exercise, it needs to be done on a regular basis. It is recommended that adults should be exercising **5 times a week for a minimum of 20 minutes**. Don't forget to rest between exercises as needed.

Please use these tables to document how much exercise you have done and how breathless you felt after the exercise for the days when you are not at the group. Bring these back so that the team can review them and give you some advice/feedback.

Scale	Severity
0	No breathlessness at all
0.5	Very very slight (just noticeable)
1	Very slight
2	Slight
3	Moderate
4	Somewhat severe
5	Severe breathlessness
6	
7	Very Severe breathlessness
8	
9	Very very severe
10	Maximum

DO NOT exercise or **STOP** if:

- You feel unwell
- You have chest pain
- You cannot regain control of your breathing

Aim to exercise to a breathing score of 3-5.

DO NOT exercise to a breathing score of 7 or above.

Example

Week 1	Mon	Tues	Weds	Thurs	Fri	Sat	Sun
Heel lifts			25 4				30 5
Bicep curls			15 4				17 5
Marching on spot			2 mins 5				14 4

How many reps or time

Breathing score

Week 1	Mon		Tues		Weds		Thurs		Fri		Sat		Sun	
Warm-up														
Heel lifts (reps)														
Bicep curls (reps)														
Marching on spot (Time)														
Sit to Stand (reps)														
Bending (reps)														
Arm press ups (reps)														
Step ups (Time)														
Knee extensions (reps)														
Shoulder Press (reps)														
Star Jacks (Time)														
Wall Squats (reps)														
Walking (Time)														
Bike (Time)														
Cool down														
Physio comments:														

Week 2	Mon		Tues		Weds		Thurs		Fri		Sat		Sun	
Warm-up														
Heel lifts (reps)														
Bicep curls (reps)														
Marching on spot (Time)														
Sit to Stand (reps)														
Bending (reps)														
Arm press ups (reps)														
Step ups (Time)														
Knee extensions (reps)														
Shoulder Press (reps)														
Star Jacks (Time)														
Wall Squats (reps)														
Walking (Time)														
Bike (Time)														
Cool down														
Physio comments:														

Week 3	Mon		Tues		Weds		Thurs		Fri		Sat		Sun	
Warm-up														
Heel lifts (reps)														
Bicep curls (reps)														
Marching on spot (Time)														
Sit to Stand (reps)														
Bending (reps)														
Arm press ups (reps)														
Step ups (Time)														
Knee extensions (reps)														
Shoulder Press (reps)														
Star Jacks (Time)														
Wall Squats (reps)														
Walking (Time)														
Bike (Time)														
Cool down														
Physio comments:														

Week 4	Mon		Tues		Weds		Thurs		Fri		Sat		Sun	
Warm-up														
Heel lifts (reps)														
Bicep curls (reps)														
Marching on spot (Time)														
Sit to Stand (reps)														
Bending (reps)														
Arm press ups (reps)														
Step ups (Time)														
Knee extensions (reps)														
Shoulder Press (reps)														
Star Jacks (Time)														
Wall Squats (reps)														
Walking (Time)														
Bike (Time)														
Cool down														
Physio comments:														

Week 5	Mon		Tues		Weds		Thurs		Fri		Sat		Sun	
Warm-up														
Heel lifts (reps)														
Bicep curls (reps)														
Marching on spot (Time)														
Sit to Stand (reps)														
Bending (reps)														
Arm press ups (reps)														
Step ups (Time)														
Knee extensions (reps)														
Shoulder Press (reps)														
Star Jacks (Time)														
Wall Squats (reps)														
Walking (Time)														
Bike (Time)														
Cool down														
Physio comments:														

Week 6	Mon		Tues		Weds		Thurs		Fri		Sat		Sun	
Warm-up														
Heel lifts (reps)														
Bicep curls (reps)														
Marching on spot (Time)														
Sit to Stand (reps)														
Bending (reps)														
Arm press ups (reps)														
Step ups (Time)														
Knee extensions (reps)														
Shoulder Press (reps)														
Star Jacks (Time)														
Wall Squats (reps)														
Walking (Time)														
Bike (Time)														
Cool down														
Physio comments:														

If you have any questions or queries regarding these exercises, please contact:

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