

Cystic Fibrosis all about physiotherapy

How to improve your posture:

A guide for adults with cystic fibrosis

This guide explains the common postural problems that people with cystic fibrosis (CF) can have and shows you how you can improve your posture through simple, effective exercises.

With thanks to Julia Taylor, University Hospital South Manchester, for preparing the information in this leaflet.

Patient name			
DOB		Hospital number	
Physiotherapy recommendations			
This leaflet was issued by: (Physiotherapist name and contact details)		This leaflet was issued on:	

How to improve your posture: a guide for adults with cystic fibrosis

Do you have concerns about your posture and would like to be able to improve it?

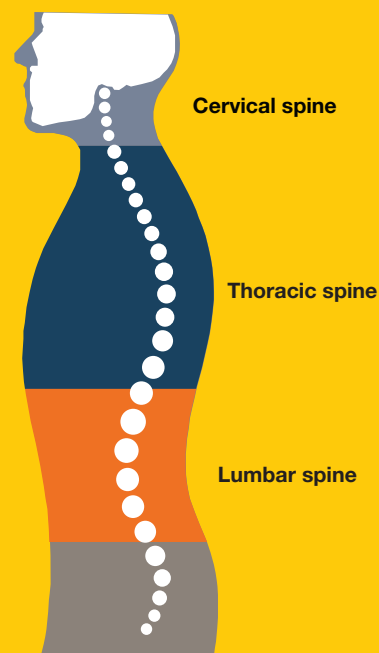
This guide explains the common postural problems that people with CF can have, and shows you how you can improve your posture through simple, effective exercises.

What is good posture?

Posture is the position that we hold our bodies in when we are sitting or standing. Good posture allows us to sit, stand or move with minimal effort and without putting strain on our bodies.

When seen from behind, the spine runs in a straight line, but when viewed from the side it should have natural curves (see picture).

When the spine is in the correct alignment (neutral spine) we have good posture. The muscles of the trunk that help to maintain good posture are called core muscles, and core stability training is when we set out to activate these deep muscles. There is no such thing as 'perfect posture' and good posture should always feel comfortable.



Why is good posture important?

It is important to try to maintain the best posture that we can to avoid problems such as pain and stiffness now or in the future.

What causes poor posture?

If we sit or stand in a slouched position, our bodies will adapt to this poor posture. The posture that we hold when coughing can cause the upper back to become rounded and if we then continue to sit in this position it can then become more difficult to adopt a good posture in the future. People with CF are more likely to develop a rounded upper back (thoracic kyphosis) and there are many reasons for this. It may not be possible to fully correct the position of the upper back but keeping the spine flexible may prevent future problems.

What causes stiffness?

When the spine is not in the best position, some muscles will become tight and some will become stretched. This can happen slowly over a long period of time. The little joints in the spine and ribs will then become stiff because they are unable to move normally. Stiff joints can be painful and can sprain more easily. Good posture should feel more comfortable but any posture (no matter how good) that is held for a long time will become uncomfortable. It is important to move and change position regularly.

What causes weakness?

The core muscles and upper back stabilising muscles can work for a long time without getting tired. If poor posture occurs, other muscles take over to keep us standing upright. Because these muscles are not designed to work for long periods, they can quickly become tired and tense. This tension can cause pain.

Many of the muscles we use for breathing also help to control our posture. If we have times when breathing is more difficult than usual, our core muscles may not be as effective at controlling our posture.

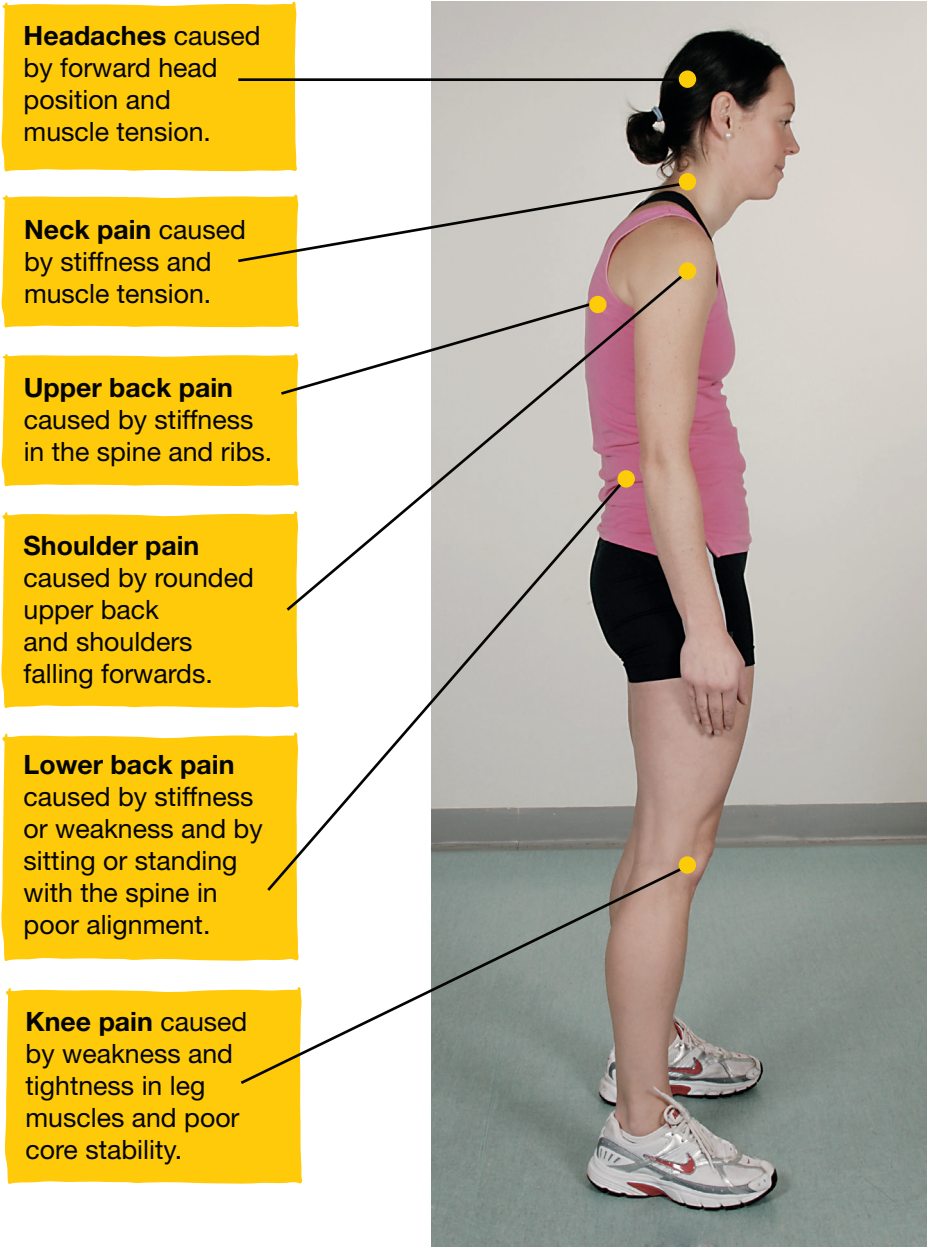
Sitting or standing in a good posture will improve our ability to use our core and other stability muscles.

Can poor posture cause pain?

Poor posture can cause pain in a number of different parts of the body, as shown in the picture on the next page.

Precautions

If you are pregnant, have bone disease, liver disease or uncontrolled reflux then please speak to your physiotherapist before starting these exercises.

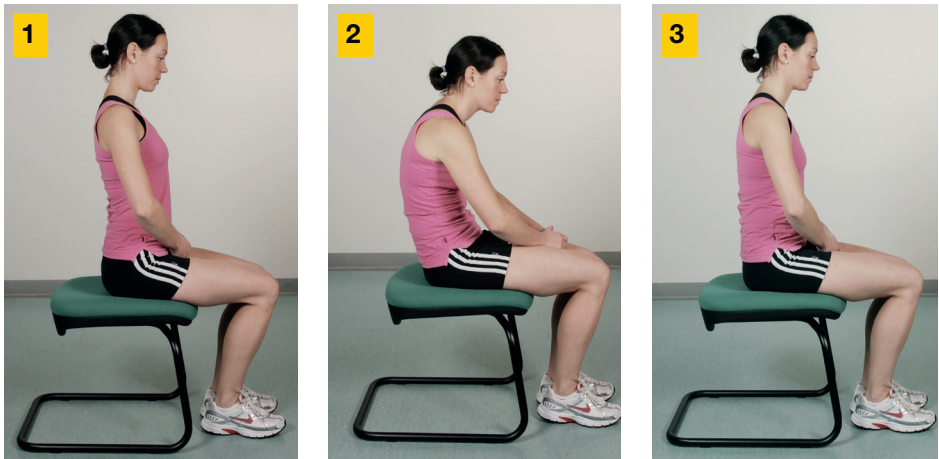


Some people may have a stiff upper back and have no pain, but it is still important to maintain flexibility and to have good posture to avoid pain in the future. In addition, good flexibility of the upper back and ribcage may help with lung expansion in people with cystic fibrosis.

How can I improve my posture?

How do I find a 'neutral spine' position?

To sit in a good position, you have to find your neutral spine position. To find this position, sit and move your hips/pelvis forwards (1) and backwards (2). Stop in the mid position (3). You should now feel all of your weight going through your sitting bones.





Incorrect



Correct

If you sit for long periods of time in the car, at work, or on the sofa, a small folded up towel may help. Put the towel at the small of your back to help keep a neutral spine position. You can then sit with your upper back supported by the chair.

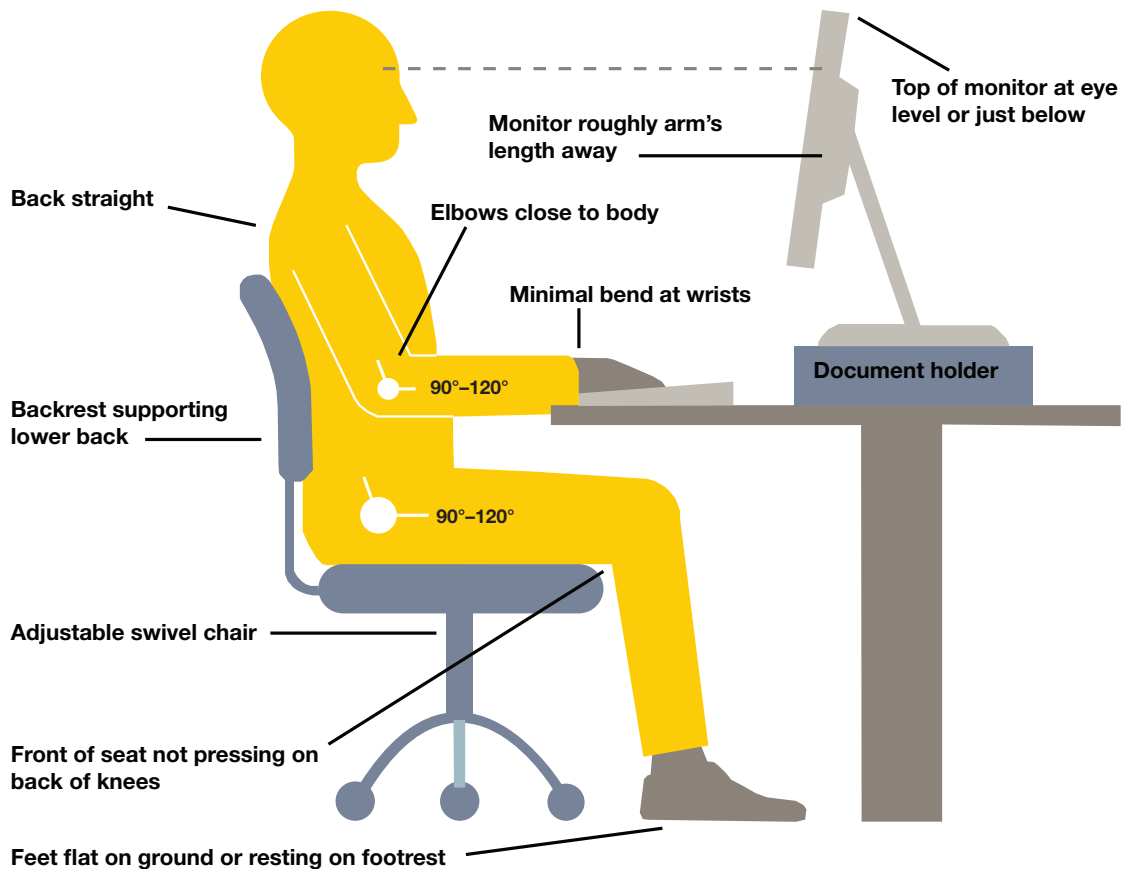
How can I improve my core stability muscles?

Core muscle activity can sometimes improve simply through doing everyday activities or as a result of our usual exercise regimes. However, some people will benefit from doing more specific exercises. Speak to your physiotherapist for ideas on how to progress your exercise programme. Your body will activate the core muscles automatically at the time they are needed and you do not need to constantly pull in your stomach muscles when sitting, standing or doing exercise.

Good sitting posture

Try to adjust your workstation (at work and at home) so that your body is fully supported and in a good position.

Workstation ergonomics: ideal set-up



If you use a laptop, you could achieve the posture above by using a separate keyboard.

Looking down at a tablet or phone for long periods of time can cause neck pain. You could consider propping the device up. It is the angle of your neck that you need to think about. Try to keep your head and upper back in the correct alignment.

Good standing posture

Stand in a neutral spine position and then gently lift your breastbone up. You may need to gently put your shoulders back and down. Take care not to over-correct your posture as shown opposite.

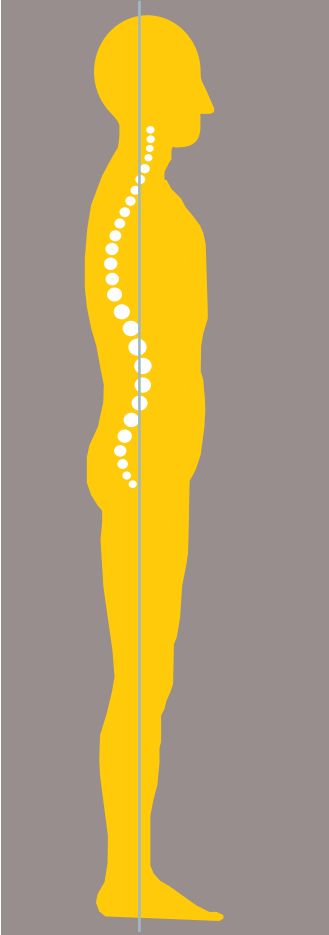
To check your posture, stand in front of a mirror and look at yourself from the side:

- You should have your weight spread evenly through both feet
- Your ankle, knee, hip and ear lobe should be in line
- Your knees should be soft and not locked back
- Your shoulders should be back and relaxed
- Your chin should be slightly tucked in (pulled backwards, not down)

Exercises to improve your posture

The section below shows you how to do stretches that should improve your body's flexibility. Each stretch should be held for 15–20 seconds and repeated three times in a row. You can do your stretches three times a day. Stretching can sometimes feel a little uncomfortable, but should not be painful. If you have any problems, please speak with your physiotherapist.

Good standing posture



Over-corrected posture



Upper back (thoracic spine) stretches

Rotation (see left)

1. Sit on a chair and cross your arms over your chest.
2. Turn to the right and hold.
3. Turn to the left and hold.
4. Let your eyes follow the movement



Side bend (see above)

1. Sit on a chair.
2. Cross your arms over the top of your head (**option 1**) or raise your arm (**option 2**).
3. Lean to the right and hold.
4. Swap arms, lean to the left, and hold.

Straightening

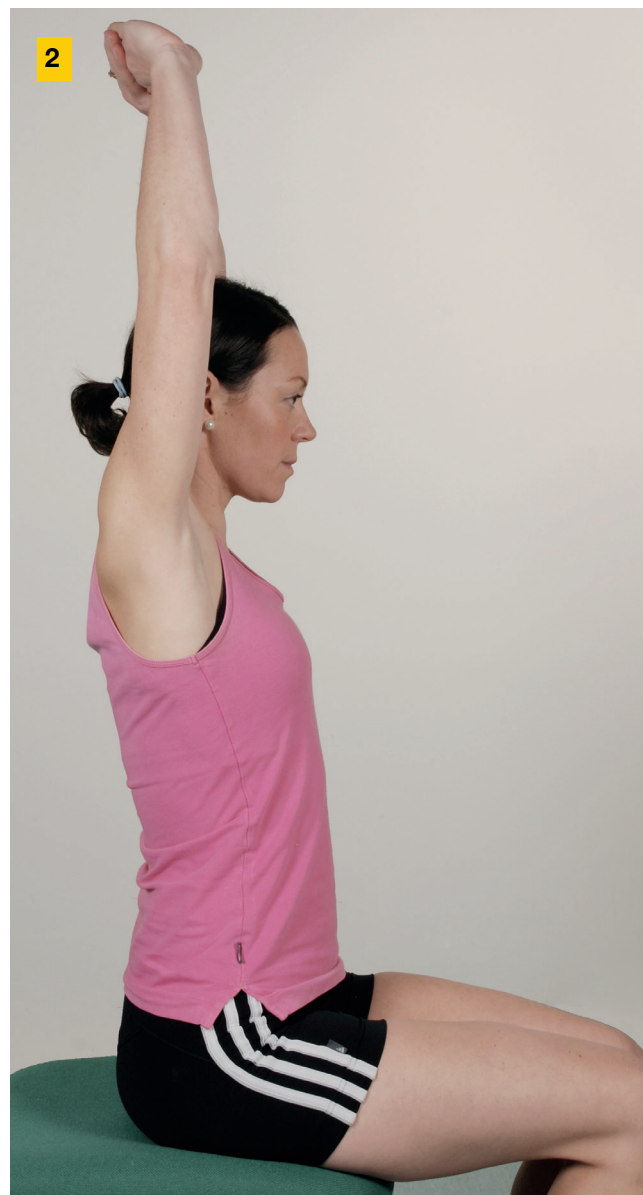
Option 1: Lift your breastbone.

Option 2: Lift your arms straight above your head.

■ Feel a stretch in your upper back.

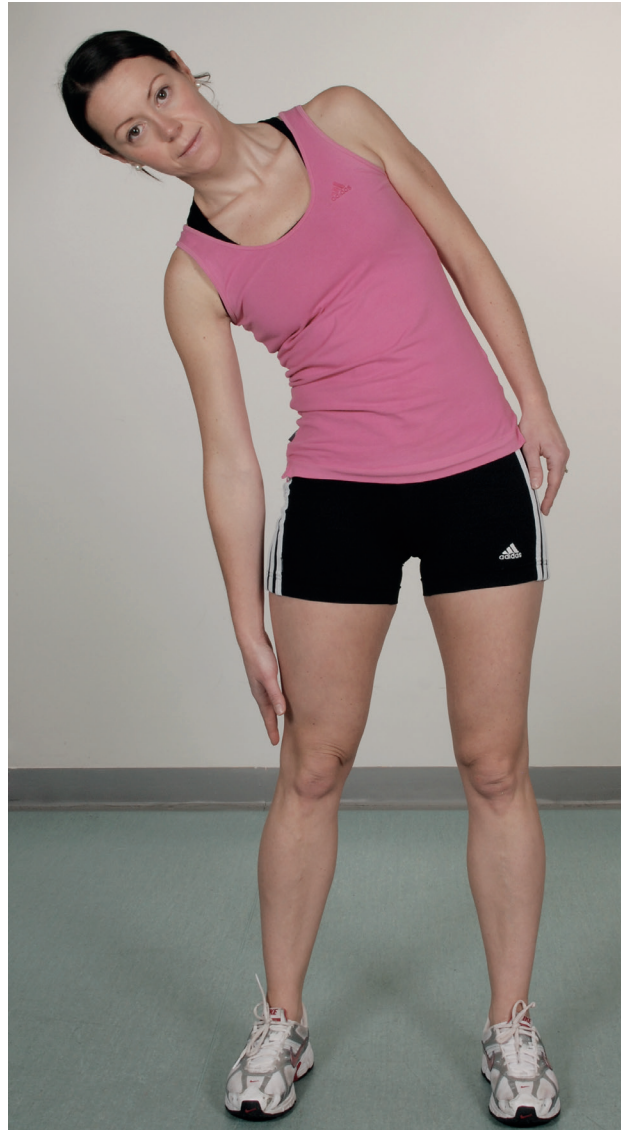
■ **Do not** let your lower back move. All the movement should be felt in your upper back.

Option 3: Kneel on the floor and let your arms slide forwards along the floor. Push your chest downwards. Feel the stretch in your upper back.



Straightening

Use a rolled up towel or a back stretcher (ask your physiotherapist for advice about using these). The towel can be moved up or down.



Lower back (lumbar spine) stretches

Side bend (see right)

1. Whilst standing, bend to the side and slide your hand down your right leg and hold.
2. Slide your hand down your left leg and hold.

Bending (flexion)

Do not do this exercise if you have osteoporosis and take care if you suffer from reflux.

Option 1: Lying on your back, bring your knees up towards your chest and feel a stretch in your lower back.

Option 2: Sit on a chair and bend forwards between your knees.



Leg stretches

Calf stretch

1. Stand with one leg in front of the other. Bend your front knee and keep your back knee straight.
2. Keep your toes pointing forwards.
3. Feel a stretch in the calf of your back leg. Hold.
4. Repeat with the other leg.



Quads stretch (front of thigh)

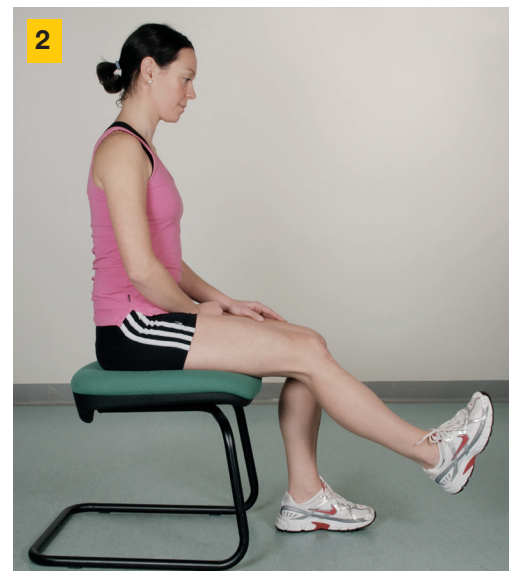
1. Stand (holding onto a support if you need one).
2. Bend one knee and hold your ankle.
3. Gently pull your ankle towards your bottom.
4. Keep your back straight.



Hamstring stretch (back of thigh)

Option 1: Lying on your back, lift one leg and support it behind your thigh. Slowly start to straighten your knee until you feel a stretch in the back of your thigh.

Option 2: Sit up very straight and slowly straighten your leg from your knee. You should feel a stretch at the back of your thigh.



Hip stretch (front of hip)

1. Kneel onto one knee.
2. Gently tighten your stomach muscles and keep your back straight.
3. Push your hips forward and feel a stretch on the front of your kneeling leg.



Posture correction position (see right)

1. Tuck chin in.
2. Relax shoulders.
3. Lift chest bone up and forwards
4. Relax your knees so they are not locked straight.



Helpful tips for correcting your posture

Correcting your posture takes time, and in the beginning you may only be able to hold good posture for a few seconds.

Remember that you should not hold a rigid posture as this will start to cause stiffness too. Your posture should feel comfortable and you should still be able to bend and move normally. You should not feel that you are having to work hard to hold a certain posture. Try not to sit or stand still for too long, and if you work at a desk it is recommended that you take a quick break every 20–30 minutes. You could do some stretches during your break.

Often, people are told to ‘put their shoulders back’, but this can feel uncomfortable and even painful. Always start to correct your posture by getting into a neutral spine position first. It will then be much easier and much more comfortable to ‘put your shoulders back’.

Help is available

If you have any concerns about your posture or are unable to do the exercises, please book an appointment with your physiotherapist.

This leaflet should only be used if it has been given to you by your physiotherapist, who will have decided if this is a suitable treatment for you to undertake. Do not use this leaflet without first consulting with your physiotherapist.

The information on this leaflet is based on clinical best practice and consensus of opinion by physiotherapists within the ACPCF. For a detailed review of the evidence for this technique, please review the 'Standards of Care and Good Clinical Practice for the Physiotherapy Management of Cystic Fibrosis' 2017. Third edition. To view our consensus documents please visit cysticfibrosis.org.uk/publications.

The Cystic Fibrosis Trust provides information about cystic fibrosis through our factsheets, leaflets and other publications. Most of our publications can be downloaded from our website or ordered from our helpline.

Our helpline can help you with a range of issues, no matter how big or small. Our trained staff can provide a listening ear, practical advice, welfare/benefits information or direct you to other sources of support. The helpline is open Monday to Friday, 9am–5pm, and can be contacted on 0300 373 1000 or at helpline@cysticfibrosis.org.uk.

For more information about the Association of Chartered Physiotherapists interested in Cystic Fibrosis please contact ACPCFmembership@gmail.com.