



Pulmonary Rehabilitation in Virtual Reality

Why has this service been recommended for you?

Your Doctor or Nurse has informed us that you have been diagnosed with moderate to severe Chronic Obstructive Pulmonary Disease (COPD) and that you may benefit from Pulmonary Rehabilitation services.

- If you have COPD, it means your lungs are damaged and their capacity to mix oxygen into your blood has been reduced.
- Oxygen is the fuel your body needs to live and perform all essential functions such as walking, talking or sleeping.
- When the supply of oxygen to your body is reduced, you will experience breathlessness even with slight to moderate exertion. Your lungs are having to work much harder to supply oxygen to your blood to fuel your activity.

What is Pulmonary Rehabilitation?

- Pulmonary Rehabilitation is a specifically designed exercise programme that teaches your muscles and body to use less oxygen (Fuel) to perform the same function.
- Think of it as a marathon runner. Their body needs just a drop of Oxygen(Fuel) to run a mile (metaphorically speaking)
- We want to train your body to do the same, so you do not become breathless on walking, running or any other activity.

PR in VR (Pulmonary Rehabilitation in Virtual Reality)

Pulmonary Rehabilitation in Virtual Reality is a new programme specifically developed for people living with COPD.

- It uses a head worn Virtual Reality headset to display images and teach people to perform structured exercise to help their condition.
- Whilst you do the exercise, the clinical team in the office can remotely monitor your progress in real-time to ensure that you are performing the exercise safely.
- The exercises are specifically designed to be simple and less strenuous than going to the gym and lifting weights.
- Remember, the purpose of exercise is to train your muscles to use less oxygen and to do that you need to frequently do light gentle exercise in a specific pattern.

PR in VR when to exercise

Try and participate in the programme between 9am – 5pm. This will enable our staff to monitor your activity in real-time.

- Make sure you complete the exercise modules at least 5 times in a week. It is vital that you participate in the programme regularly to get the maximum benefit.
- The regular daily exercise will build your muscles to work on small amount of oxygen faster than doing lots of exercises in one day.

Remember our joint goal is to help you enjoy life and be less breathless when active.

Our service collects data from your exercises.

It is important for you to understand how we use your information.

- We collect data from sensors in the devices to provide your clinicians with information about your health and the status of your lungs, during and after exercise.
- This data enables the clinicians to supervise you remotely, identify if you are becoming unwell and inform your GP to take further action if necessary.
- We only use data received from sensors and the relevant information from your GP records for delivering care to you.
- Your GP record relating to your condition was provided when you consented to the referral.

Assessment forms - why we need further information

In addition to the data collected from the devices, we need to complete various assessment forms with you from time to time. The information you provide us is vital for the clinicians to interpret the results and help you get the most out of the programme.

- The assessment process can take 30 mins in the beginning and at the end of the programme. You must take your time and if you feel unwell, please request that staff come back another time.
- Please do not feel under pressure to complete the assessments on one day if you can't. Discuss with the staff and they will work with you to help.

Programme evaluation and research

- This programme is also being independently evaluated by Manchester Metropolitan University. This is to add to the research evidence into use of Virtual reality for rehabilitation purposes.
- Your anonymised data will be used to inform further developments and improve service delivery. You may be asked to take part in focus groups or interviews by the researchers.
- Your contribution will help improve these services for others. However, participation is not mandatory and you can decline to take part in these interviews.

Device Care Instructions

Pico G2 VR Headset – delivers the virtual reality programme.

Nonin 3150 Pulse Oximeter – used to measure the oxygen level (oxygen saturation) of the blood. It is an easy, painless measure of how well oxygen is being sent to parts of your body furthest from your heart, such as the arms and legs.

EE Mobile Wifi – if your home broadband isn't satisfactory to run the programme, we will provide an additional wifi device.

Safety Information

- **Epilepsy:** The headset is not suitable for people with **Epilepsy** – **DO NOT use the headset if you have EPILEPSY!**
- **Children:** The Headset is **not suitable for children under 13 years of age**. Although no associated health risks are identified, we advise caution.

- **Position:** Patients and users must remain seated in a chair during the exercise. Users/patients **must NOT stand or walk whilst the headset is mounted on the head.**
- **Dizziness:** The headset can cause dizziness when the head is moved quickly in all directions. It is important to follow the audio visual instructions given in the programme to prevent dizziness. **If you experience dizziness, remove the headset and remain seated for 10 – 15 minutes to allow the dizziness to settle.**
- **Food:** It is important that you are not exercising on a full stomach. **Patients/users should ensure they have had their last meal at least 90 minutes before starting exercise.**
- **After exercise:** Remove the headset and remain seated for 5 minutes on the chair / sofa for your eyes to get acclimatised to your surroundings.
- **Removing Headset during exercise:** If you need to stop the programme in the middle of the exercise, remove the headset and place it beside you. On resuming, simply put the headset back on your head and the exercise programme should automatically start from where it was paused.
- **If at any time you feel unwell you MUST stop exercise and seek appropriate medical help.**
- **Stop Exercise if you develop angina or chest pain and inform your doctor immediately**

Emergency Information

- **This information should be similar to the information / leaflet / advice North Lincs GPs give to their patients**

Contact Details

Staff Name:

Contact Number:

Office Number:

Please remember that the Staff & Office team are only able to respond to the phone call during **9 – 5 Monday – Friday (Not Bank Holidays).**

Email address for non-emergency contacts: info@concepthealth.co.uk



NHS - 111

EMERGENCY - 999