

# Respiratory physiology

Join the team and  
make a difference

**Patients' lives often depend on the care provided by respiratory physiologists, who carry out a wide range of vital diagnostic tests that assess all aspects of lung function. This is a fast-evolving field of healthcare science with plenty of challenges and opportunities.**

## What will you do?

As a respiratory physiologist, you will support the respiratory team in the diagnosis and management of patients' conditions by providing accurate, reliable information on their lung function.

Patients will be referred to you for a variety of reasons, including chronic chest pain, allergies, breathing difficulties, abnormal chest X-rays, asthma, emphysema or sleep breathing problems.

Using cutting-edge, specialised apparatus, you will work with patients to measure and monitor their respiratory function, usually at rest and after exertion.

Some of the measurements you take will test lung capacity, blood gases, breathing during sleep and the body's responses to exercise. You will also be responsible for the maintenance and calibration of all diagnostic and therapeutic equipment, including that given to patients to use at home. This gives you long-term involvement in a patient's treatment and care.

Sleep physiology is a growing, related area that focuses specifically on individuals who have problems sleeping. Respiratory

physiologists might monitor patients with conditions such as sleep apnoea, where people temporarily stop breathing when they are asleep.

In some cases, respiratory physiologists specialising in sleep disorders monitor patients overnight in sleep laboratories, where they carry out various sleep analyses.

## What entry routes are available?

To qualify as a respiratory physiologist, you will need to secure a place to undertake a vocational BSc (Hons) in clinical physiology. The course allows students to specialise in an area of their choice (such as respiratory physiology, cardiology or gastrointestinal physiology). On completion of your training you will be eligible to join the voluntary register of the Registration Council for Clinical Physiologists.

If you have a first-class or upper second-class degree in a relevant subject, you may be eligible to join the NHS Clinical Scientists Training Scheme. This is a four-year programme of in-depth training in a specialist area, usually leading to an MSc or specialist postgraduate diploma, and registration with the Health Professions Council. For more information, visit [www.nhsclinicalscientists.info](http://www.nhsclinicalscientists.info)

With GCSEs or an equivalent NVQ and/or previous work experience, it is often possible to start work as a trainee or assistant in healthcare science, combining on-the-job training with study so that you learn as you earn.

For more information, see the *Clinical support worker* factsheet.

Some NHS organisations also offer apprenticeships, which involve a two-year training programme that gives you experience of different jobs within healthcare science.

For more information on the range of opportunities available in healthcare science, please visit [www.nhscareers.nhs.uk/list/qualifications](http://www.nhscareers.nhs.uk/list/qualifications). This gives more specific details about what qualifications are necessary for each role. You can search for current vacancies and download job descriptions at [www.jobs.nhs.uk](http://www.jobs.nhs.uk)

### How can you develop your career?

This is a career with excellent prospects, and includes openings for research, management and education. Respiratory physiologists are expected to continually expand their knowledge as advances are made. With training, responsibility and experience, you could reach the highest level in the profession, attaining consultant status.

Find out more about what training is open to you and how you can develop your career, at [www.nhscareers.nhs.uk/list/training](http://www.nhscareers.nhs.uk/list/training)

You will also have the chance to take on additional responsibilities and progress

within the organisation as part of the Career Framework. For more information about this initiative, please see the *Careers in healthcare science* booklet.

### Pay

The national pay system in the NHS is called Agenda for Change (AfC). This applies to all healthcare science staff except the most senior managers. These are examples of roles and the AfC bands at which they may be paid: healthcare science support worker (Band 2); healthcare science assistant (Band 4); healthcare science practitioner (Band 5); healthcare science specialist (Band 6); healthcare science advanced (Band 7); healthcare science consultant (Band 8a-c).

For more information, visit [www.nhscareers.nhs.uk/list/payandbenefits](http://www.nhscareers.nhs.uk/list/payandbenefits)

**To find out more about careers in this area of healthcare science, please go to**  
[www.nhscareers.nhs.uk/list/working](http://www.nhscareers.nhs.uk/list/working)

**For more information on the professional bodies relevant to healthcare science, visit**  
[www.nhscareers.nhs.uk/list/contacts](http://www.nhscareers.nhs.uk/list/contacts)

Where will you work?	What skills and qualities will you need?
<p>You are most likely to be based in a hospital, dealing with in and outpatients of all ages.</p> <p>Extra hours and on-call work may be required.</p>	<ul style="list-style-type: none"> <li>• an interest in physics, maths and biology</li> </ul>
	<ul style="list-style-type: none"> <li>• reliability and accuracy – someone's life could depend on your measurements and records</li> </ul>
	<ul style="list-style-type: none"> <li>• good communication skills – you will be working with patients of all ages, some of whom may be seriously ill or anxious</li> </ul>
	<ul style="list-style-type: none"> <li>• ability to encourage patients to use the correct technique during tests – results depend on this</li> </ul>
	<ul style="list-style-type: none"> <li>• IT skills and ease working with high-tech equipment</li> </ul>
	<ul style="list-style-type: none"> <li>• calmness in traumatic situations</li> </ul>