

Neurophysiology

Neurophysiology is concerned with the investigation of function in the central and peripheral nervous system.

If you're a healthcare scientist working in neurophysiology, you'll be a specialist practitioner investigating the function of the nervous system to diagnose and monitor neurological disorders.



You will assist with the diagnosis of neurological disorders

Working life

Working as a healthcare scientist in neurophysiology, you will assist with the diagnosis of neurological disorders including epilepsy which affects about 10% of the UK population.

Neurophysiology also plays a role in monitoring people who have disorders affecting the brain including

viral encephalitis, meningitis, strokes or are suffering with dementia. If you work in this area of healthcare science, you will frequently carry out investigations in dedicated environments or departments, such as in intensive care [1] settings and in operating theatres.

You will work directly with inpatients and outpatients of all ages (babies, children and adults).

Investigations include:

- EEG (electroencephalography) - a recording of the electrical activity of the brain from the scalp which is mainly used in the diagnosis of epilepsy and monitoring of people with this condition.
- Evoked potentials - these are potentials produced by the brain in response to specific stimuli, for example a flashing light or sounds. Evoked Potential are used in diagnosis of various conditions including Multiple Sclerosis and eye conditions like night blindness.
- EMG (electromyography) and NCS (nerve conduction studies) - these assess function of the nerves and muscles within the body. Carpal Tunnel Syndrome is commonly diagnosed using NCS. EMG is used in conditions affecting nerve and muscle function including myasthenia gravis, motor neurone disease among others.

Who will I work with?

You will work as part of a multi-disciplinary team that includes doctors specialising in neurology [2], specialist nurses [3] and other healthcare science staff (eg those specialising in audiology [4] or ophthalmic and vision science [5]).

Want to learn more?

- Find out more about the entry requirements, skills and interests required to enter a career in neurophysiology [6]
- Find out more about the training you'll receive for a career in neurophysiology [7]
- Pay and conditions

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Most jobs in the NHS are covered by the Agenda for Change (AfC) [8] pay scales. This pay system covers all staff except doctors, dentists and the most senior managers. As a healthcare science practitioner, you'd usually start on band 5, with opportunities to progress to more senior positions. Trainee clinical scientists train at band 6 level, and qualified clinical scientists are generally appointed at band 7. With experience and further qualifications, you could apply for posts up to band 9.

Staff will usually work a standard 37.5 hours per week. They may work a shift pattern.

Terms and conditions of service can vary for employers outside the NHS.

- Where the role can lead

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With further training or experience or both, you may be able to develop your career further and apply for vacancies in areas such as further specialisation, management, research, or teaching.

Healthcare science staff often work at the forefront of research and innovation, so that patients are continually receiving the very best healthcare. For example, in neurophysiology, you might be

investigating ways to overcome spinal cord paralysis.

- Job market and vacancies

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Job market

In November 2018, there were 6,123 clinical scientists registered with the Health and Care Professions Council [9].

The NHS Scientist Training Programme (STP) [10] attracts many more applicants than there are places and so there is considerable competition for places.

Finding and applying for jobs

When you're looking for job or apprenticeship vacancies, there are a number of sources you can use, depending on the type of work you're seeking.

Check vacancies carefully to be sure you can meet the requirements of the person specification before applying and to find out what the application process is. You may need to apply online or send a CV for example.

For the STP [10], there is an annual recruitment cycle. Applications usually open in early January for the intake in the following autumn and should be made through the National School of Healthcare Science's website [11], where you can also find information about the programme and the recruitment process.

Key sources relevant to vacancies in the health sector:

- vacancies in organisations delivering NHS healthcare can be found on the NHS Jobs website [12]
- opportunities in the Civil Service can be found on the Civil Service Jobs website [13]
- vacancies in local government can be found on the Local Government Jobs website [14] and the Jobs Go Public website [15]

As well as these sources, you may find suitable vacancies in the health sector by contacting local employers directly, searching in local newspapers and by using the Universal Jobmatch tool [16].

Find out more about applications and interviews [17].

Volunteering is an excellent way of gaining experience (especially if you don't have enough for a specific paid job you're interested in) and also seeing whether you're suited to a particular type of work. It's also a great way to boost your confidence and you can give something back to the community!

Find out more about volunteering and gaining experience [18].

- Further information

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For further information about a career in neurophysiology, please contact:

- Academy for Healthcare Science [19]
- The Association of Neurophysiological Scientists [20]
- Health and Care Professions Council [21]
- National School of Healthcare Science [11]
- UCAS [22]

Other roles that may interest you

- Neurology [23]
- Neurosurgery [24]
- Respiratory physiology and sleep sciences [25]
- Dentist [26]

Source URL: <https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/physiological-sciences/neurophysiology>

Links

- [1] https://www.healthcareers.nhs.uk/glossary#Intensive_care
- [2] <https://www.healthcareers.nhs.uk/explore-roles/medicine/neurology>
- [3] <https://www.healthcareers.nhs.uk/explore-roles/nursing>
- [4] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/audiology>
- [5] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/ophthalmic-and-vision-science>
- [6] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/neurophysiology/entry-requirements-skills-and-interests>
- [7] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/neurophysiology/training-development-and-registration>
- [8] <https://www.healthcareers.nhs.uk/about/careers-nhs/nhs-pay-and-benefits/agenda-change-pay-rates>
- [9] <http://www.hcpc-uk.org>
- [10] <https://www.healthcareers.nhs.uk/i-am/considering-or-university/not-studying-health-related-degree/nhs-scientist-training-programme>
- [11] <http://www.nshcs.hee.nhs.uk/>
- [12] <http://www.jobs.nhs.uk>
- [13] <https://www.civilservicejobs.service.gov.uk/csr/index.cgi>
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- [18] <https://www.healthcareers.nhs.uk/i-am/secondary-school-or-fe-college/gaining-experience>
- [19] <http://www.ahcs.ac.uk>
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