

# Neurology

Neurologists diagnose, treat and manage disorders that affect the central nervous system (the brain and spinal cord) and the peripheral nervous system (nerves and muscles which activate movement and transmit sensation from all parts of the body to the brain).

This page provides useful information on the nature of the work, the common procedures/interventions, sub-specialties and other roles that may interest you.



## Nature of the work

Neurologists treat any disease of the body's systems that affects neurological function. High blood pressure, for example, is a cardiac problem, but if it causes a [stroke](#) <sup>[1]</sup> (a sudden loss of blood supply to the brain) the problem becomes a neurological one as well.

Neurologists also treat infectious disease such as meningitis which can cause brain damage and lead to complications like epilepsy.

They also treat peripheral nerve diseases which may result in weakness or sensory impairment.

In many cases, the diagnosis of new patients with neurological problems is by clinical assessment alone (taking a thorough history of the symptoms and physical examination), though in others there may be a need for further investigation such as blood tests, scans (CT or [MRI](#) [2]) and electrical tests which measure peripheral nerve and muscle function.

Patients are followed up either to clarify the diagnosis or alternatively to manage longer term problems. Examples of conditions which require long term follow-up are epilepsy, multiple sclerosis and Parkinson's disease.

The process of diagnosis is becoming ever more sophisticated with improved imaging and other types of tests including genetic testing. Available treatments are broadening too with improvements in existing therapy as well as new treatments such as those to modify the disease in multiple sclerosis.

Neurologists treat conditions such as:

- [stroke](#) [1]
- multiple sclerosis
- headaches
- blackouts
- peripheral neuropathy (disease affecting the nerves) including chronic neuropathic pain
- Parkinson's disease and other movement disorders (eg tremor)
- Alzheimer's disease and other forms of dementia
- Amyotrophic Lateral Sclerosis (ALS) also known as motor neuron disease. MND (causing weakness and muscle wasting due to nerve degeneration)
- epilepsy
- spinal cord diseases
- muscle diseases like muscular dystrophy (causing weakness of muscle fibres)
- myasthenia gravis (where the muscles become weak and tire easily) and related disorders
- brain tumours
- functional disorders (symptoms which cannot be explained by neurological damage)

Over 5,000 neurological diseases have been identified.

## Common procedures/interventions

These include:

- [MRI](#) [2] and [CT scans](#) [3]
- Electroencephalography (EEG) to look for signs of epilepsy
- Nerve conduction tests (neurophysiology)
- injections for the treatment of patients with dystonia (abnormal muscle contractions)
- rarely, muscle or nerve biopsies

If a patient requires surgery, the neurologist refers them to a neurosurgeon.

## Sub-specialties

Many neurologists develop sub-specialty interests such as:

- epilepsy
- headache
- [stroke](#) [1] and cerebrovascular (affecting circulation of blood to the brain) medicine
- multiple sclerosis (a progressive disease of the central nervous system ) and inflammatory diseases
- movement disorders
- neuromuscular disorders
- cognitive neurology (includes attention, memory and decision-making)
- sleep medicine
- pain management

## Want to learn more?

Find out more about:

- the [working life](#) [4] of someone in neurology
- the [entry requirements](#) [5] and [training and development](#) [6]
- Pay and conditions [Expand / Collapse](#)  
This section provides useful information about the pay for junior doctors (doctors in training), specialty doctors, consultants and general practitioners.

Find out more about the current [pay scales for doctors](#) [7], and there's more on the [BMA website](#) [8].

[NHS Employers](#) [9] provides useful advice and guidance on all NHS pay, contracts terms and conditions.

Medical staff working in private sector hospitals, the armed services or abroad will be paid on different scales.

- Where the role can lead [Expand / Collapse](#)  
Read about consultant and non-consultant roles in neurology, flexible working and about wider opportunities.

### Consultant roles

You can apply for consultant roles six months prior to achieving your [Certificate of Completion of Training](#) [10] ([CCT](#) [11]). You will receive your [CCT](#) [11] at the end of neurology.

Managerial opportunities for consultants include:

- clinical lead - lead NHS consultant for the team
- clinical director - lead NHS consultant for the department

- medical director - lead NHS consultant for the Trust

Most NHS consultants will be involved with clinical and educational supervision of junior doctors.

Here are some examples of education and training opportunities:

- director of medical education - the NHS consultant appointed to the hospital board who is responsible for the postgraduate medical training in a hospital. They work with the postgraduate dean to make sure training meets GMC standards.
- training programme director - the NHS consultant overseeing the education of the local cohort of trainee doctors eg [foundation training](#) <sup>[12]</sup> programme director. This role will be working within the HEE local office/deanery
- associate dean - the NHS consultant responsible for management of the entirety of a training programme. This role will be also be working within the HEE local office/deanery

### **SAS doctor roles**

There are also opportunities to work at non-consultant level, for example as a SAS (Specialist and Associate Specialist) doctor. SAS doctors are non-training roles where the doctor has at least four years of postgraduate training, two of those being in a relevant specialty. [Find out more about SAS doctor roles](#) <sup>[13]</sup>.

### **Other non-training grade roles**

These roles include:

- trust grade
- clinical fellows

### **Academic pathways**

If you have trained on an academic neurology pathway or are interested in research there are opportunities in academic medicine.

For those with a particular interest in research, you may wish to consider an academic career in neurology. Whilst not essential, some doctors start their career with an Academic Foundation post. This enables them to develop skills in research and teaching alongside the basic competences in the foundation curriculum.

Entry into an academic career would usually start with an Academic Clinical Fellowship (ACF) and may progress to a Clinical Lectureship (CL). Alternatively some trainees that begin with an ACF post then continue as an ST trainee on the clinical programme post-ST4.

Applications for entry into Academic Clinical Fellow posts are coordinated by the [National Institute for Health Research Trainees Coordinating Centre \(NIHRTCC\)](#). <sup>[14]</sup>

There are also numerous opportunities for trainees to undertake research outside of the ACF/CL route, as part of planned time out of their training programme. [Find out more about academic medicine](#) <sup>[15]</sup>.

The [Clinical Research Network](#) <sup>[16]</sup> (CRN) actively encourages all doctors to take part in clinical research.

## Specialty developments

The field is now catching up with cardiology in being able to offer treatments that go beyond palliative care to improve the quality of life of patients with degenerative or incurable diseases. New developments in [genetics](#) <sup>[17]</sup> will transform the working lives of neurologists starting on their careers today.

- **Job market and vacancies Expand / Collapse**

This section provides useful information about the availability of jobs, finding vacancies and where to find out more.

## Job market information

Neurology had 727 consultants and 385 neurology registrars in England ([NHS Digital, 2016](#) <sup>[18]</sup>). Women make up 25% of the consultant workforce, and 45% of higher specialty trainees in the UK ([2014/15 RCP census, 2016](#) <sup>[19]</sup>). Some of the additional 147 [stroke](#) <sup>[1]</sup> consultants (160 in the UK) and 80 medical registrars also work in neurology.

In 2012-13, 25 new consultant posts were created in England, Wales and Northern Ireland, the seventh highest expansion of all specialties.

In 2016 the [competition ratio](#) <sup>[20]</sup> for [Core Medical Training](#) <sup>[21]</sup> (CT1), the first stage in the training (post-foundation), was 1.53, and for ST3 neurology it was 4.00 ([NHS Specialty Training, 2016](#) <sup>[22]</sup>).

For information regarding Scotland, Wales and Northern Ireland please click on the links below.

[NHS Scotland medical and dental workforce data](#) <sup>[23]</sup>

[NHS Wales medical and dental workforce data](#) <sup>[24]</sup>

[Department of Health, Social Services and Public Safety workforce information for Northern Ireland](#) <sup>[25]</sup>

## Where to look for vacancies

All trainees apply through the online application system [Oriol](#) <sup>[26]</sup>. You will be able to register for training, view all vacancies, apply, book interviews and assessment centres, and manage offers made to you.

HEE offices and deaneries will have details of training vacancies. Not all areas of the UK will offer new training posts in all specialties in all years.

All jobs will be advertised on the [NHS Jobs website](#) [27].

The [BMJ Careers website](#) [28] also advertises vacancies.

- Further information Expand / Collapse  
**Organisations**

[Royal College of Physicians](#) [29]

[Royal College of Physicians of Edinburgh](#) [30]

[Royal College of Physicians and Surgeons of Glasgow](#) [31]

[British Association of Stroke Physicians](#) [32]

[Association of British Neurologists](#) [33]

### **Real-life stories**

[Dr Hedley Emsley, consultant in stroke neurology \(RCP\)](#) [34]

[Dr Neil Archibald, an ST7 trainee in neurology \(RCPE\)](#) [35]

## **Other roles that may interest you**

- [Cardiology](#) [36]
- [Geriatric medicine](#) [37]
- [Neurosurgery](#) [38]
- [Rehabilitation medicine](#) [39]

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**Source URL:** <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/neurology>

### **Links**

[1] <https://www.healthcareers.nhs.uk/glossary#Stroke>

[2] <https://www.healthcareers.nhs.uk/glossary#MRI>

[3] [https://www.healthcareers.nhs.uk/glossary#CT\\_scans](https://www.healthcareers.nhs.uk/glossary#CT_scans)

[4] <https://www.healthcareers.nhs.uk/explore-roles/medicine/neurology/working-life>

[5] <https://www.healthcareers.nhs.uk/explore-roles/medicine/neurology/entry-requirements-skills-and-interests>

[6] <https://www.healthcareers.nhs.uk/explore-roles/medicine/neurology/training-and-development>

[7] <https://www.healthcareers.nhs.uk/about-us/careers-medicine/pay-doctors>

[8] <http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales>

[9] <http://www.nhsemployers.org/your-workforce/pay-and-reward>

[10] [https://www.healthcareers.nhs.uk/glossary#Certificate\\_of\\_completion\\_of\\_training](https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training)

[11] <https://www.healthcareers.nhs.uk/glossary#CCT>

[12] [https://www.healthcareers.nhs.uk/glossary#Foundation\\_training](https://www.healthcareers.nhs.uk/glossary#Foundation_training)

[13] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/information-doctors/sas-doctors>

[14] <https://www.nihr.ac.uk/>

[15] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/clinical-academic-careers/clinical-academic-medicine>

[16] <http://www.crn.nihr.ac.uk/>

- [17] <https://www.healthcareers.nhs.uk/glossary#Genetics>
- [18] <http://content.digital.nhs.uk/searchcatalogue?productid=23451&topics=2%2fWorkforce%2fStaff+numbers%2fM>
- [19] <https://www.rcplondon.ac.uk/projects/outputs/2014-15-census-uk-consultants-and-higher-specialty-trainees>
- [20] [https://www.healthcareers.nhs.uk/glossary#Competition\\_ratio](https://www.healthcareers.nhs.uk/glossary#Competition_ratio)
- [21] [https://www.healthcareers.nhs.uk/glossary#Core\\_medical\\_training](https://www.healthcareers.nhs.uk/glossary#Core_medical_training)
- [22] <https://specialtytraining.hee.nhs.uk/Competition-Ratios>
- [23] <http://www.isdscotland.org/Health-Topics/Workforce/Medical-and-Dental/>
- [24] <https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Staff/Medical-and-Dental-Staff>
- [25] <https://www.health-ni.gov.uk/articles/staff-numbers>
- [26] <https://www.orient.nhs.uk/>
- [27] <https://www.jobs.nhs.uk/>
- [28] <http://careers.bmj.com>
- [29] <http://www.rcplondon.ac.uk/>
- [30] <http://www.rcpe.ac.uk/>
- [31] <http://www.rcpsg.ac.uk>
- [32] <http://www.basp.ac.uk/>
- [33] <http://www.theabn.org/>
- [34] <https://www.rcplondon.ac.uk/education-practice/interview/specialty-careers-profile-stroke-medicine>
- [35] <https://www.rcpe.ac.uk/careers-resource/neurology>
- [36] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/cardiology>
- [37] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/geriatric-medicine>
- [38] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/surgery/neurosurgery>
- [39] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/surgery/rehabilitation-medicine>