



A Career in Neurophysiology?

Clinical Neurophysiology is one of the disciplines included in the healthcare science professions. Neurophysiologists are specialist practitioners who investigate the function of the nervous system in order to diagnose and monitor neurological disorders. Investigations are usually carried out in dedicated environments, in intensive care settings and in the operating theatres and require close communications with patients of all ages and the multidisciplinary team. Clinical Neurophysiology provides an innovative career pathway which encourages lifelong development. Most departments are open Monday to Friday and Clinical Physiologists work 37½ hours per week. Some departments also provide weekend cover and/or an on-call service.



EEG (Electroencephalography)

A measure of brain function by recording the electrical activity of the brain using electrodes (usually attached to the scalp). This investigation is performed to help in the diagnosis of patients who may suffer from a wide variety of medical disorders which alter the function of the brain, a significant proportion of which may be neurological or psychiatric in nature

EMG (Electromyography) and NCS (Nerve Conduction Studies)

In many departments, the Neurophysiologist is also required to perform NCS and may assist the clinician with EMG. These investigations look at the way in which nerves and muscles in the body are working and help in the diagnosis of diseases such as carpal tunnel syndrome, muscular dystrophies, nerve dysfunction etc.

Evoked Potentials

These are potentials produced by the brain in response to specific stimuli, for example a flashing light, or sounds, such as a click. They are used to assess the function of nerve pathways, especially in some neurological disorders such as multiple sclerosis.



Neurophysiology

Neurophysiology is a fast growing area of development where increasingly high technology and computerisation are employed, but where practitioners still work very closely with patients and the medical profession. Neurophysiologists need to possess a sympathetic manner to deal with patients of all ages and their carers. They require excellent communication skills, with the ability to provide support and reassurance to people of all abilities, who may feel frightened or vulnerable. A high degree of accuracy and careful attention to detail are important qualities for Neurophysiologists. Neurophysiology is usually based in hospitals and linked to neurological centres. Departments vary in the number and type of investigations carried out. Some of the more specialised techniques that may be carried out include:

- Long-term ambulatory EEG monitoring
- Video Telemetry
- Sleep studies
- Monitoring during surgical procedures
- Peripheral Nerve Conduction Studies
- Visual Electrodiagnostic Investigations

Qualifications and Training

Two A-levels at grade C minimum in science based subjects, which may include Mathematics, Foundation Degree in Clinical Physiology, Vocational Qualification (equivalent to A-levels) or a Degree (Hons) in a science based subject. A career in Neurophysiology involves a 4 year degree course that has taught lectures by a higher education provider, and in-house discipline specific training within a designated Neurophysiology dept.

To obtain access to the course you must find a Trust who is appointing a student and be successful in your application for the post. Visit www.jobs.nhs.uk for current job vacancies.

On starting you will be enrolled at the Higher Education provider with college fees paid, and you will be paid a wage by the NHS during the training period.

You will create a log book to show competence in all basic aspects of Neurophysiology and will be externally assessed for professional qualification. The first 2 years focus on Electroencephalography (EEG) and the second 2 years Evoked Potentials (EP), Nerve conduction studies (NCS) and Electromyography (EMG).

There are good options for clinical physiologists to progress within Neurophysiology. Firstly the 4 year course on qualification equates to a basic grade band 5 practitioner (see Department of Health job banding) www.nhsemployers.org/pay-conditions/agenda-for-change.cfm. However much of our work is highly specialised and therefore requires higher levels of competence i.e. bands 6, 7 and 8's for head of department. Furthermore research work is often available within departments and form part of our working lives. MSc/PHD etc are all possibilities depending upon the department you are working in, the support mechanism in place and your enthusiasm at the time.

www.rccp.co.uk is the website of the governing body for state registration. The RCCP site has a section on education showing all the providers of the degree, if contacted they should be able to provide a list of all hospitals who have an available student post in the region - this may not be available until spring 2008.

Potential applicants are advised to approach local Neurophysiology departments for information and if possible work experience.

What is ANS?

ANS is the professional body representing Neurophysiologists. It currently has over 600 members worldwide. The Association's aims and objectives are to support its members, develop the profession and further the knowledge in Neurophysiological techniques. To this end, ANS holds scientific meetings each year, in addition to study days, which practitioners are encouraged to attend for their continued professional development. ANS also publishes the Journal of the Association of Neurophysiological Scientists (JANS) three times a year and a monthly newsletter is distributed to all of its members. The Association represents Neurophysiologists at Department of Health level and gives advice to practitioners as required, although it does not act in any way as a trade union. It is governed by a council which meets regularly to discuss the important business affairs of the Association. ANS is affiliated to the Organisation of Societies of Electrophysiological Technology (OSET), which is an international federation of such societies.

Would You Like To Know More?

For further information please contact:

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