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Clinical engineering

Clinical engineering staff check and maintain medical equipment to make sure it is safe to use and operating correctly.

Hospitals and NHS staff in the community rely on an increasingly wide range of medical equipment to provide excellent care to patients, so your role is vitally important.

Life as a clinical engineer

You'll need a background in electronic or mechanical engineering and the confidence and willingness to take a hands-on approach.

You'll enjoy a varied and exciting role maintaining and ensuring the safety of a wide range of medical equipment. This could range from simple devices such as nebulisers to sophisticated and life-saving equipment like radiotherapy [1] linear accelerators.

With experience, you can develop your role and gain greater responsibility to modify and construct equipment.

You will be responsible for managing medical equipment through its life cycle, ensuring that parts are replaced, guaranteeing that machines are always safe to use.

A typical day may include:

- testing new equipment
- introducing equipment and devices into service
- advising on the correct use of equipment
- addressing patient safety issues
- safely disposing of old devices

Hollie Owen

Apprentice medical engineer

It makes me feel good knowing that the equipment I fixed will go and help a patient get the treatment they need.

Read Hollie's story [2]

How much can I earn?

You'll be employed on a national pay and conditions system called <u>Agenda for Change (AfC)</u> [3] . Below are examples of the pay band you'll be on, depending on your role within neurophysiology:

- healthcare science assistant B2/3
- healthcare science associate B4
- healthcare science practitioner B5
- Cclinical scientist B6/7/8a
- consultant clinical scientist B8a-d

How about the benefits?

- make a difference
- flexible and part-time working
- high income early in your career
- work anywhere in the world
- excellent pension scheme
- good holiday entitlement
- NHS discounts in shops and restaurants

How to become a clinical engineer

Starting your career in clinical engineering might be easier than you think. You could undertake study at university or find an apprenticeship that takes you straight into a job.

There are a wide variety of entry levels into clinical engineering such as assistant or level 2 apprenticeships, associate practitioner roles, level 4 apprenticeships.

There are also Bachelor degrees/degree apprenticeships, Master's degrees and Higher Specialist Scientist Training.

See 'How to become a healthcare science professional' [4] for details.

Must-have skills

- excellent communication skills to manage a wide range of relationships with colleagues, patients and their families?
- emotional resilience, a calm temperament and the ability to work well under pressure?
- teamwork and the capacity to lead multidisciplinary teams?
- problem-solving and diagnostic skills?
- outstanding?organisational?ability and effective decision-making skills?

• first-class time and resource management for the benefit of patients

Entry requirements

There are several different ways to start your career in clinical engineering, depending on your experience and qualifications.

Apprenticeship

You could look for an entry level job/level 2 apprenticeship – typically GCSEs 9-4/A-C in maths, English and a science. If an apprenticeship feels right for you, you'll need 5 GCSEs at 9-4/A-C (or equivalent) including maths, English and science or Level 2 Diploma in Healthcare Science to start a level 4 apprenticeship.

Associate practitioner

An associate practitioner role is another route to a career in clinical engineering. You'll likely require foundation degree, or equivalent experience with training and experience to NVQ level 3.

Degree-level qualification

A level 6 apprenticeship or degree course require relevant level 3 qualifications, for example three A-levels (including at least one science subject) or an Access to higher education course.

Post-graduate

To start the NHS Scientist Training Programme, you'll need a 1st or 2:1 in relevant first degree or relevant higher degree and 2:2 in a relevant subject.

Higher Specialist Scientist Training is available for registered clinical scientists with relevant MSc or specialist diploma.

Where a career in clinical engineering can take you

Working in clinical engineering can lead to registration as a Clinical Scientist. You can then move into senior and consultant Clinical Scientist roles, through the <u>Higher Specialist Scientist</u> Training (HSST) programme [5].

It can also lead to careers in academia, research, industry, management and leadership and training.

Live vacancies

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Medical Engineering Apprentice

Shrewsbury, SY3 8XQ

Salary:

£12514.00

Type:

Apprenticeship

Employer:

The Shrewsbury and Telford Hospital NHS Trust

Apply now on NHS Jobs for Medical Engineering Apprentice job (opens in a new window) [6]

Medical Engineering Technician

Wigan, WN1 2NN

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

Wrightington Wigan & Leigh Teaching Hospitals NHS Foundation Trust Apply now on NHS Jobs for Medical Engineering Technician job (opens in a new window) [7]

Medical Engineering Apprentice

Carlisle / Whitehaven, CA2 7HY

Salary:

£26530.00 to £29114.00

Type:

Fixed-Term

Employer:

North Cumbria Integrated Care NHS Foundation Trust
Apply now on NHS Jobs for Medical Engineering Apprentice job (opens in a new

Apply now on NHS Jobs for Medical Engineering Apprentice job (opens in a new window) [8]

Medical Engineering (EBME) Technician

Wrexham, LL57 2PW

Salary:

£30420.00 to £37030.00

Type:

Permanent

Employer:

Betsi Cadwaladr University Health Board

Apply now on NHS Jobs for Medical Engineering (EBME) Technician job (opens in a new window) [9]

Principal Linac Engineer - Medical Physics

Cardiff, CF14 1TL

Salary:

£46840.00 to £53602.00

Type:

Permanent

Employer:

Velindre Cancer Centre

Apply now on NHS Jobs for Principal Linac Engineer - Medical Physics job (opens in a new window) [10]

Medical Engineering Entry Level Technologist

Shrewsbury, SY3 8XQ

Salary:

£26530.00 to £29114.00

Type:

Permanent

Employer:

The Shrewsbury and Telford Hospital NHS Trust

Apply now on NHS Jobs for Medical Engineering Entry Level Technologist job
(opens in a new window) [11]

Medical Engineering Technician - Computing Specialist

Leicester, LE1 5WW

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

University Hospitals of Leicester NHS Trust

Apply now on NHS Jobs for Medical Engineering Technician - Computing Specialist job (opens in a new window) [12]

Medical Engineering Apprentice (Grade C)

Keighley, BD206TD

Salary:

£31950.00

Type:

Apprenticeship

Employer:

AGH Solutions Ltd

Apply now on NHS Jobs for Medical Engineering Apprentice (Grade C) job (opens in a new window) [13]

Clinical Engineering Technical Administrator

Chesterfield, S44 5BL

Salary:

£25076.00 to £26732.00

Type:

Permanent

Employer:

Chesterfield Royal Hospital NHS Foundation Trust

Apply now on NHS Jobs for Clinical Engineering Technical Administrator job

(opens in a new window) [14]

Decontamination Engineer

Hadley, TF1 7UL

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

The Shrewsbury and Telford Hospital NHS Trust

Apply now on NHS Jobs for Decontamination Engineer job (opens in a new window) [15]

Infrastructure Engineer

Newcastle Upon Tyne, NE1 4WH

Salary:

£46148.00 to £52809.00

Type:

Fixed-Term

Employer:

NHS Counter Fraud Authority

Apply now on NHS Jobs for Infrastructure Engineer job (opens in a new window)

[16]

EUC Engineer

London, E14 4PU

Salary:

£37338.00 to £44962.00

Type:

Permanent

Employer:

NHS Counter Fraud Authority

Apply now on NHS Jobs for EUC Engineer job (opens in a new window) [17]

Advanced Engineer - Mechanical

kendal, LA9 7RG

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

East Lancashire Hospitals NHS Trust

Apply now on NHS Jobs for Advanced Engineer - Mechanical job (opens in a new window) [18]

Mechanical Engineering Technician

Rhyl, LL18 5UJ

Salary:

£30420.00 to £37030.00

Type:

Permanent

Employer:

Betsi Cadwaladr University Health Board

Apply now on NHS Jobs for Mechanical Engineering Technician job (opens in a new window) [19]

Digital Innovation Engineer

Torquay, TQ2 7FT

Salary:

£26530.00 to £29114.00

Type:

Fixed-Term

Employer:

Torbay and South Devon NHS Foundation Trust

Apply now on NHS Jobs for Digital Innovation Engineer job (opens in a new window) [20]

Decontamination Engineering Tradesperson

Cwmbran, NP44 8YN

Salary:

£30420.00 to £37030.00

Type:

Permanent

Employer:

Aneurin Bevan University Health Board

Apply now on NHS Jobs for Decontamination Engineering Tradesperson job (opens in a new window) [21]

Machine Learning Engineer

Sutton, SM2 5PT

Salary:

£67950.00 to £78028.00

Type:

Permanent

Employer:

The Royal Marsden NHS Foundation Trust

Apply now on NHS Jobs for Machine Learning Engineer job (opens in a new window) [22]

Senior Network Engineer

London, SE13 6LH

Salary:

£46148.00 to £52809.00

Type:

Permanent

Employer:

Lewisham and Greenwich NHS Trust

Apply now on NHS Jobs for Senior Network Engineer job (opens in a new window)

Ambulance Vehicle Engineer

Coventry, CV6 6JR

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

West Midlands Ambulance Service University NHS Foundation Trust Apply now on NHS Jobs for Ambulance Vehicle Engineer job (opens in a new window) [24]

Radiotherapy Electronics Engineer

London, W2 1NY

Salary:

£54320.00 to £60981.00

Type:

Permanent

Employer:

Imperial College Healthcare NHS Trust

Apply now on NHS Jobs for Radiotherapy Electronics Engineer job (opens in a new window) [25]

Network Operations Engineer

Seaton Delaval, NE25 0QJ

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

Northumbria Healthcare NHS Foundation Trust

Apply now on NHS Jobs for Network Operations Engineer job (opens in a new window) [26]

Senior IT Engineer

Milton Keynes, MK6 5LD

Salary:

£46148.00 to £52809.00

Type:

Permanent

Employer:

Milton Keynes University Hospital NHS Foundation Trust

Apply now on NHS Jobs for Senior IT Engineer job (opens in a new window) [27]

Principal Radiation Engineer Radiotherapy

Worcester, United Kingdom, WR51DD

Salary:

£46148.00 to £52809.00

Type:

Permanent

Employer:

Worcestershire Acute Hospitals NHS Trust

Apply now on NHS Jobs for Principal Radiation Engineer Radiotherapy job (opens in a new window) [28]

Aseptic Programme Validation Engineer

London, SE1 7EH

Salary:

£54320.00 to £60981.00

Type:

Permanent

Employer:

Guy's and St Thomas' NHS Foundation Trust

Apply now on NHS Jobs for Aseptic Programme Validation Engineer job (opens in a new window) [29]

Senior Infrastructure Engineer (Cloud)

Location to be decided at interview, CF11 9AD

Salary:

£54550.00 to £61412.00

Type:

Permanent

Employer:

Digital Health and Care Wales

Apply now on NHS Jobs for Senior Infrastructure Engineer (Cloud) job (opens in a new window) [30]

Maintenance Engineer Electrical Technician

Poole, BH15 2JB

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

University Hospitals Dorset NHS Foundation Trust

Apply now on NHS Jobs for Maintenance Engineer Electrical Technician job (opens in a new window) [31]

o IT Service Desk Engineer

East Grinstead, RH19 3DZ

Salary:

£26530.00 to £29114.00

Type:

Permanent

Employer:

Queen Victoria Hospital NHS Foundation Trust

Apply now on NHS Jobs for IT Service Desk Engineer job (opens in a new window)

[32]

Engineering Tradesperson – (Core Trade Electrical)

Merthyr Tydfil, CF47 9DT

Salary:

£30420.00 to £37030.00

Type:

Permanent

Employer:

Cwm Taf Morgannwg University Health Board

Apply now on NHS Jobs for Engineering Tradesperson – (Core Trade Electrical) job (opens in a new window) [33]

Engineering Tradesperson – (Core Trade Electrical)

Merthyr Tydfil, CF47 9DT

Salary:

£30420.00 to £37030.00

Type:

Permanent

Employer:

Cwm Taf Morgannwg University Health Board

Apply now on NHS Jobs for Engineering Tradesperson – (Core Trade Electrical) job (opens in a new window) [34]

Vehicle Technician/Fleet Engineer - Nursling

Southampton, SO16 0YU

Salary:

£39150.31 to £45805.00

Type:

Permanent

Employer:

South Central Fleet Services Ltd

Apply now on NHS Jobs for Vehicle Technician/Fleet Engineer - Nursling job (opens in a new window) [35]

Vehicle Technician/Fleet Engineer - Didcot

Didcot, OX11 8RY

Salary:

£39150.31 to £45805.00

Type:

Permanent

Employer:

South Central Fleet Services Ltd

Apply now on NHS Jobs for Vehicle Technician/Fleet Engineer - Didcot job (opens in a new window) [36]

Principal End User Services Engineer

Tonypandy, CF40 1AG

Salary:

£54550.00 to £61412.00

Type:

Permanent

Employer:

Cwm Taf Morgannwg University Health Board

Apply now on NHS Jobs for Principal End User Services Engineer job (opens in a new window) [37]

Unified Desktop Windows 11 Engineer

Basildon, SS16 5NL

Salary:

£29970.00

Type:

Fixed-Term

Employer:

Mid and South Essex NHS Foundation Trust

Apply now on NHS Jobs for Unified Desktop Windows 11 Engineer job (opens in a new window) [38]

Vehicle Technician/Fleet Engineer - Aylesbury

Aylesbury, HP20 1BH

Salary:

£39150.31 to £45805.00

Type:

Permanent

Employer:

South Central Fleet Services Ltd

Apply now on NHS Jobs for Vehicle Technician/Fleet Engineer - Aylesbury job (opens in a new window) [39]

o Advanced Engineer - Fitter/Steam Boiler

Lancaster, LA1 4RP

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

East Lancashire Hospitals NHS Trust

Apply now on NHS Jobs for Advanced Engineer - Fitter/Steam Boiler job (opens in a new window) [40]

Medical and Clinical Administrator

Dawley, TF4 3JS

Salary:

£24625.00 to £25674.00

Type:

Fixed-Term

Employer:

Midlands Partnership NHS Foundation Trust

Apply now on NHS Jobs for Medical and Clinical Administrator job (opens in a new window) [41]

Clinical Administrator/Medical Secretary

Telford, TF8 7DT

Salary:

Negotiable

Type:

Permanent

Employer:

Ironbridge Medical Practice

Apply now on NHS Jobs for Clinical Administrator/Medical Secretary job (opens in a new window) [42]

Medical Records Summariser / Clinical Coder

London, E13 0AS

Salary:

Negotiable

Type:

Fixed-Term

Employer:

Essex Lodge Surgery

Apply now on NHS Jobs for Medical Records Summariser / Clinical Coder job (opens in a new window) [43]

Clinical Research Fellow (ST3+) Medical Oncology

London, W1T 7HA

Salary:

£61825.00

Type:

Fixed-Term

Employer:

University College London Hospitals NHS Foundation Trust

<u>Apply now on NHS Jobs for Clinical Research Fellow (ST3+) Medical Oncology job</u>

<u>(opens in a new window)</u> [44]

Locum Medical or Clinical Oncology Consultant

Northampton, NN1 5BD

Salary:

£105504.00 to £139882.00

Type:

Fixed-Term

Employer:

Northampton General Hospital

Apply now on NHS Jobs for Locum Medical or Clinical Oncology Consultant job (opens in a new window) [45]

Consultant (Medical/Clinical) Oncologist in Breast Cancer

Sheffield, S10 2SJ

Salary:

£105504.00 to £139882.00

Type:

Permanent

Employer:

Sheffield Teaching Hospitals NHS Foundation Trust

Apply now on NHS Jobs for Consultant (Medical/Clinical) Oncologist in Breast

Cancer job (opens in a new window) [46]

Further information

- Academy for Healthcare Science [47]
- o Health and Care Professions Council [48]
- o Institution of Physics and Engineering in Medicine [49]

- National School of Healthcare Science [50]
- UCAS [51]

Other roles that may interest you

- Clinical or medical technology in medical physics [52]
- Medical device risk management and governance [53]
- Knowledge and library services [54]
- Health records staff [55]

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Links [1] https://www.healthcareers.nhs.uk/glossary#Radiotherapy [2] https://www.healthcareers.nhs.uk/exploreroles/healthcare-science/roles-healthcare-science/physical-sciences-and-biomedical-engineering/medicalengineering/real-life-story-hollie-owen [3] https://www.healthcareers.nhs.uk/working-health/workingnhs/nhs-pay-and-benefits/agenda-change-pay-rates [4] https://www.healthcareers.nhs.uk/exploreroles/healthcare-science/how-become-healthcare-science-professional [5] https://www.healthcareers.nhs.uk/career-planning/developing-your-health-career/nhs-higher-specialistscientist-training [6] https://beta.jobs.nhs.uk/candidate/jobadvert/C9223-25-0427 [7] https://beta.jobs.nhs.uk/candidate/jobadvert/C9302-25-0306 [8] https://beta.jobs.nhs.uk/candidate/jobadvert/C9262-25-0522 [9] https://beta.jobs.nhs.uk/candidate/jobadvert/H9050-25-1465 [10] https://beta.jobs.nhs.uk/candidate/jobadvert/C9120-25-0072 [11] https://beta.jobs.nhs.uk/candidate/jobadvert/C9223-25-0444 [12] https://beta.jobs.nhs.uk/candidate/jobadvert/C9358-25-0332 [13] https://beta.jobs.nhs.uk/candidate/jobadvert/M9423-25-0033 [14] https://beta.jobs.nhs.uk/candidate/jobadvert/C9166-25-0240 [15] https://beta.jobs.nhs.uk/candidate/jobadvert/C9223-25-0430 [16] https://beta.jobs.nhs.uk/candidate/jobadvert/G9076-25-0046 [17] https://beta.jobs.nhs.uk/candidate/jobadvert/G9076-25-0045 [18] https://beta.jobs.nhs.uk/candidate/jobadvert/C9435-25-0155 [19] https://beta.jobs.nhs.uk/candidate/jobadvert/H9050-25-1262 [20] https://beta.jobs.nhs.uk/candidate/jobadvert/C9388-25-0667 [21] https://beta.jobs.nhs.uk/candidate/jobadvert/H9040-25-0728 [22] https://beta.jobs.nhs.uk/candidate/jobadvert/C9282-25-0422 [23] https://beta.jobs.nhs.uk/candidate/jobadvert/C9197-25-0437 [24] https://beta.jobs.nhs.uk/candidate/jobadvert/C9217-019-25-26 [25] https://beta.jobs.nhs.uk/candidate/jobadvert/C9290-25-0515 [26] https://beta.jobs.nhs.uk/candidate/jobadvert/C9319-25-0492 [27]

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