

# Medical engineering

Medical engineering refers to the process of checking medical equipment to make sure it's working properly and is safe to use.

Hospitals use an increasingly wide range of medical equipment in order to deliver healthcare services. This ranges from simple devices such as nebulisers to deliver treatment for [respiratory](#) <sup>[1]</sup> patients through to sophisticated [radiotherapy](#) <sup>[2]</sup> linear accelerators for cancer treatments and other cutting-edge technologies.

Healthcare scientist man with gamma camera

## Working life

All medical equipment needs to be checked to ensure it is working correctly and safe for patients and it is the role of healthcare science staff working in medical engineering to do this.

It isn't just safety checks and maintenance, though. In medical engineering, you'd also get involved with the entire equipment lifecycle, including:

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

Medical engineering is a really exciting and varied role where you'll use your expertise in electronic or mechanical engineering to undertake these activities and perhaps become involved in modifying or constructing equipment as well.

As a practitioner you'll be undertaking a hands-on role with medical devices, working with a wide range of equipment commonly encountered in the hospital environment. You might specialise in certain types of equipment such as that used in renal or [radiotherapy](#) <sup>[2]</sup> treatment, for example.

As a clinical scientist you can specialise in [medical device risk management and governance](#) <sup>[3]</sup> where the role will be more focused on the effective management of equipment, for example ensuring equipment is replaced in a timely fashion and that risks associated with the use of equipment are minimised. Both roles complement each other and collectively contribute to

patient health and wellbeing.

## 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](#) <sup>[4]</sup>

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Apprenticeships logo

## Who will I work with?

Clinicians increasingly rely on the skills of healthcare science staff in medical engineering and so you will regularly liaise with other [scientists](#) <sup>[5]</sup>, [nurses](#) <sup>[6]</sup>, doctors and healthcare professionals as part of a multi-disciplinary team, all working for the benefit of the patient.

## Want to learn more?

- [Find out more about the entry requirements, skills and interests required to enter a career in medical engineering](#) <sup>[7]</sup>
- [Find out more about the training you'll receive for a career in medical engineering](#) <sup>[8]</sup>

### • Live vacancies

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### ○ 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 \(opens in a new window\)](#) <sup>[9]</sup>

- **Clinical Engineer**

Stevenage, SG1 4AB

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

East and North Hertfordshire Teaching NHS Trust

[Apply now on NHS Jobs for Clinical Engineer job \(opens in a new window\)](#) <sup>[10]</sup>

- **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 \(opens in a new window\)](#) <sup>[11]</sup>

- **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 \(opens in a new window\)](#) <sup>[12]</sup>

- **Rehabilitation Engineer**

Blacklands Way, OX14 1RG

Salary:

£37035.00 to £41511.00

Type:

Permanent

Employer:

Ace Centre

[Apply now on NHS Jobs for Rehabilitation Engineer job \(opens in a new window\)](#)

[13]

- **Server Engineer**

Exeter, EX2 7HY

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

South Western Ambulance Service NHS Foundation Trust

[Apply now on NHS Jobs for Server Engineer job \(opens in a new window\)](#) [14]

- **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 \(opens in a new window\)](#) [15]

- **Engineering Tradesperson Electrical**

Bridgend, CF31 1SQ

Salary:

£30420.00 to £37030.00

Type:

Permanent

Employer:

Cwm Taf Morgannwg University Health Board

[Apply now on NHS Jobs for Engineering Tradesperson Electrical job \(opens in a new window\)](#) [16]

- **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 \(opens in a new window\)](#) <sup>[17]</sup>

- **Principal Biomedical Engineer**

City of London, W1G 6BW

Salary:

Negotiable

Type:

Permanent

Employer:

The London Clinic

[Apply now on NHS Jobs for Principal Biomedical Engineer job \(opens in a new window\)](#) <sup>[18]</sup>

- **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 \(opens in a new window\)](#) <sup>[19]</sup>

- **Technical Infrastructure Engineer**

Liverpool, L12 2AP

Salary:

£37338.00 to £44962.00

Type:

Permanent

Employer:

Alder Hey Children's NHS Foundation Trust

[Apply now on NHS Jobs for Technical Infrastructure Engineer job \(opens in a new window\)](#) <sup>[20]</sup>

- **Principal Integration Engineer**

High Wycombe, HP9 2JH

Salary:

£65000.00 to £75000.00

Type:

Permanent

Employer:

InHealth Group

[Apply now on NHS Jobs for Principal Integration Engineer job \(opens in a new window\)](#) <sup>[21]</sup>

- **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 \(opens in a new window\)](#) <sup>[22]</sup>

- **IT Service Desk Engineer**

Runcorn, WA7 4QX

Salary:

£23875.00 to £23875.00

Type:

Permanent

Employer:

HCRG Care Group

[Apply now on NHS Jobs for IT Service Desk Engineer job \(opens in a new window\)](#) <sup>[23]</sup>

- **Band 5 Mechanical Engineer**

Loughborough, LE11 5JY

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

Leicestershire Partnership NHS Trust

[Apply now on NHS Jobs for Band 5 Mechanical Engineer job \(opens in a new window\)](#) <sup>[24]</sup>

- **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 \(opens in a new window\)](#) <sup>[25]</sup>

- **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 \(opens in a new window\)](#) <sup>[26]</sup>

- **Electronics /Electrical Service Engineer**

Manchester, M20 4BX

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

The Christie NHS FT

[Apply now on NHS Jobs for Electronics /Electrical Service Engineer job \(opens in a new window\)](#) <sup>[27]</sup>

- **Senior Multi-skilled Engineer**

Bristol, BS10 5NB

Salary:

£37338.00 to £44962.00

Type:

Permanent

Employer:

North Bristol NHS Trust

[Apply now on NHS Jobs for Senior Multi-skilled Engineer job \(opens in a new window\)](#) <sup>[28]</sup>

- **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 \(opens in a new window\)](#) <sup>[29]</sup>

- **Electrical Bias - Electrical/Engineering Craftsperson**

Bangor, LL57 2PW

Salary:

£30420.00 to £37030.00

Type:

Permanent

Employer:

Betsi Cadwaladr University Health Board

[Apply now on NHS Jobs for Electrical Bias - Electrical/Engineering Craftsperson job \(opens in a new window\)](#) <sup>[30]</sup>

- **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 \(opens in a new window\)](#) <sup>[31]</sup>

- **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 \(opens in a new window\)](#) <sup>[32]</sup>

- **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 \(opens in a new window\)](#) <sup>[33]</sup>

- **Electrical Engineering Technician (Multi-skilled)**

Haywards Heath, RH16 4EX

Salary:

£29970.00 to £36483.00

Type:

Permanent

Employer:

University Hospitals Sussex NHS Foundation Trust (279)

[Apply now on NHS Jobs for Electrical Engineering Technician \(Multi-skilled\) job \(opens in a new window\)](#) <sup>[34]</sup>

- **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 \(opens in a new window\)](#) <sup>[35]</sup>

- **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 \(opens in a new window\)](#) <sup>[36]</sup>

- **Clinical Teaching Fellow - Medical Education**

Cardiff, CF14 4YU

Salary:

£43821.00 to £68330.00

Type:

Fixed-Term

Employer:

Cardiff and Vale University Health Board

[Apply now on NHS Jobs for Clinical Teaching Fellow - Medical Education job \(opens in a new window\)](#) <sup>[37]</sup>

- **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 \(opens in a new window\)](#) <sup>[38]</sup>

- **Specialist Clinical Practitioner (Non- Medical Prescriber)**

Exmouth, EX8 4DD

Salary:

£46148.00 to £52809.00

Type:

Permanent

Employer:

Devon Partnership NHS Trust

[Apply now on NHS Jobs for Specialist Clinical Practitioner \(Non- Medical Prescriber\) job \(opens in a new window\)](#) <sup>[39]</sup>

- **Senior Clinical Fellow in Medical Oncology**

London, SE1 9RT

Salary:

£70425.00

Type:

Fixed-Term

Employer:

Guy's and St Thomas' NHS Foundation Trust

[Apply now on NHS Jobs for Senior Clinical Fellow in Medical Oncology job \(opens in a new window\)](#) <sup>[40]</sup>

- **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 \(opens in a new window\)](#) <sup>[41]</sup>

- **Locum Consultant in Clinical Oncology/Medical Oncology**

Coventry, CV2 2DX

Salary:

£105504.00 to £139882.00

Type:

Locum

Employer:

University Hospitals Coventry and Warwickshire NHS Trust

[Apply now on NHS Jobs for Locum Consultant in Clinical Oncology/Medical Oncology job \(opens in a new window\)](#) <sup>[42]</sup>

- **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 \(opens in a new window\)](#) <sup>[43]</sup>

- **Clinical Teaching Fellow in Trauma & Orthopaedics & Medical Education**

Yeovil, BA21 4AT

Salary:

£49909.00

Type:

Fixed-Term

Employer:

Somerset NHS Foundation Trust

[Apply now on NHS Jobs for Clinical Teaching Fellow in Trauma & Orthopaedics & Medical Education job \(opens in a new window\)](#) <sup>[44]</sup>

- **Senior Clinical Fellow in ICU and Medical Education**

Cambridge Bio Medical Campus, CB2 0AY

Salary:

£70425.00

Type:

Fixed-Term

Employer:

Royal Papworth Hospital NHS Foundation Trust

[Apply now on NHS Jobs for Senior Clinical Fellow in ICU and Medical Education job \(opens in a new window\)](#) <sup>[45]</sup>

- **Medical Secretary/Higher Medical Secretary**

Middlesbrough, TS4 3BW

Salary:

£24625.00 to £29114.00

Type:

Permanent

Employer:

South Tees Hospitals NHS Foundation Trust

[Apply now on NHS Jobs for Medical Secretary/Higher Medical Secretary job \(opens in a new window\)](#) <sup>[46]</sup>

- **Medical Secretary/Higher Medical Secretary**

Middlesbrough, TS4 3BW

Salary:

£24625.00 to £29114.00

Type:

Permanent

Employer:

South Tees Hospitals NHS Foundation Trust  
[Apply now on NHS Jobs for Medical Secretary/Higher Medical Secretary job \(opens in a new window\)](#) <sup>[47]</sup>

- **Medical Secretary/Higher Medical Secretary**

Middlesbrough, TS4 3BW

Salary:

£24625.00 to £29114.00

Type:

Permanent

Employer:

South Tees Hospitals NHS Foundation Trust

[Apply now on NHS Jobs for Medical Secretary/Higher Medical Secretary job \(opens in a new window\)](#) <sup>[48]</sup>

- **Emergency Medical Technician - Acute Medical Services**

Stevenage, SG1 4AB

Salary:

£24625.00 to £25674.00

Type:

Permanent

Employer:

East and North Hertfordshire Teaching NHS Trust

[Apply now on NHS Jobs for Emergency Medical Technician - Acute Medical Services job \(opens in a new window\)](#) <sup>[49]</sup>

- **Where the role can lead**

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 medical engineering, healthcare science staff are developing new breast screening technology which could be safer than traditional mammogram x-rays.

- **Pay and conditions**

Most jobs in the NHS are covered by the Agenda for Change (AfC) <sup>[50]</sup> 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, including Higher Specialist Scientist Training <sup>[51]</sup>, 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.

## • Further information

For further information about a career in medical engineering, please contact:

- Academy for Healthcare Science <sup>[52]</sup>
- Health and Care Professions Council <sup>[53]</sup>
- Institution of Physics and Engineering in Medicine <sup>[54]</sup>
- National School of Healthcare Science <sup>[55]</sup>
- UCAS <sup>[56]</sup>

## Other roles that may interest you

- Clinical or medical technology in medical physics <sup>[57]</sup>
- Medical device risk management and governance <sup>[58]</sup>
- Clinical informatics <sup>[59]</sup>
- Health records staff <sup>[60]</sup>

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**Source URL:** [https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/physical-sciences-and-biomedical-engineering/medical-engineering?field\\_field\\_role=275&page=20&destination=/my-account/my-bookmarks/1092](https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/physical-sciences-and-biomedical-engineering/medical-engineering?field_field_role=275&page=20&destination=/my-account/my-bookmarks/1092)

### Links

[1] <https://www.healthcareers.nhs.uk/glossary#Respiratory> [2]  
<https://www.healthcareers.nhs.uk/glossary#Radiotherapy> [3] <https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomechanical-engineering/medical-device-risk-management> [4]  
<https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/physical-sciences-and-biomedical-engineering/medical-engineering/real-life-story-hollie-owen> [5]  
<https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomedical-engineering> [6]  
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