

A career for you in

Healthcare science



careers.nhs.scot/healthcare-science

NHS
SCOTLAND

Introduction

Did you know that there are more than 50 different healthcare science careers?

Healthcare scientists work in one of these 4 areas:

- physical sciences and clinical engineering
- bioinformatics and data science
- life sciences
- physiological sciences

Who are healthcare scientists?

Healthcare scientists use science, data, product design, and engineering to do the following:

- Prevent, diagnose, monitor, and treat medical conditions.
- Commission and maintain medical equipment.
- Provide rehabilitative care to assist in the management of long-term medical conditions.
- Design and develop custom medical devices.
- Make, adapt, and improve assistive technology.

The healthcare science workforce is involved in 80% of diagnostic decisions throughout the patient journey. Some work behind the scenes, while others have regular direct contact with patients.

Whatever their role, they're at the heart of improving healthcare and advancing scientific development through research, technology, and innovation.

Choosing a healthcare science career

Healthcare scientists work across the NHS in locations including:

- hospital theatres
- health centres
- decontamination units
- hospital mortuaries
- inpatient and outpatient clinics
- hospital laboratories
- patients' homes
- GP surgeries
- workshops
- hospital emergency departments

You could be a biomedical scientist, analysing a blood sample to help a patient receive an accurate diagnosis or a blood transfusion.

As a bioinformatician, you'd analyse biological data to support the delivery of patient care.

Maybe you'd like to work as a clinical photographer, taking digital images to record and monitor a patient's medical condition.

You could be a respiratory physiologist using specialist equipment to investigate a patient's breathing problems.



Innovative and diverse roles

There are many routes to a rewarding career at different levels in all areas of healthcare science.

These include Modern Apprenticeships, entry-level support roles, and training programmes for healthcare science practitioners and clinical scientists.

Healthcare science assistant practitioner

Support worker roles - entry-level qualifications, Modern Apprenticeships, and undergraduate degree-level opportunities.



Healthcare science associate practitioner

Support worker roles - entry-level qualifications, Modern Apprenticeships, and undergraduate degree-level opportunities.



Healthcare science practitioner

Graduate-level roles such as biomedical scientist, clinical technologist, and clinical physiologist.



Clinical scientist

Postgraduate-level roles leading to clinical scientist registration can include trainee clinical scientist and associate clinical scientist.



Consultant healthcare scientist

Postgraduate, doctoral and higher-level professional qualifications.



Your career in healthcare science

Where should you begin?

This career guide gives an insight into a wide range of career opportunities in healthcare science.

Let's discover some of the healthcare science careers you can choose in the NHS!



Physical sciences and clinical engineering

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Physiological sciences

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For more healthcare science career inspiration, visit our website –

careers.nhs.scot/healthcare-science

Physical sciences and clinical engineering

Physical sciences staff work in medical physics, clinical engineering, reconstructive science, and clinical photography departments in the NHS.

They use specialist techniques, equipment, and technologies to:

- Test and maintain medical equipment.
- Measure and monitor what's happening in a patient's body.
- Take images to record changes in a patient's condition.
- Design, manufacture, and adapt medical devices or assistive technology to meet patients' needs.
- Make sure the environment and equipment used to deliver therapy are safe for patients and staff.

Discover some of the roles you'll find in physical sciences and clinical engineering.

Clinical engineer

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Clinical photographer

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Clinical technologist in clinical engineering

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Medical physicist

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Reconstructive scientist

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Clinical engineer

Clinical engineers combine their design and development, problem-solving, and curiosity skills with their engineering knowledge to:

- Help other healthcare professionals to diagnose and treat diseases.
- Design, build, and adapt assistive technology or medical devices to support both patients and clinical services.

They specialise in one of four areas:

- **Clinical measurement** – carrying out specialist diagnostic tests to monitor and assess the effectiveness of treatment interventions.
- **Medical equipment management** – maintaining equipment used to deliver healthcare services.

- **Engineering design and development** – designing and developing medical devices and building technology to meet the needs of a range of clinical services.
- **Rehabilitation engineering** – manufacturing or adapting assistive technology to meet a person's needs, including wheelchairs, artificial limbs, and robotic aids.



How to become a clinical engineer

You'll need to complete a postgraduate-level work-based training programme.

Scottish Medical Physics and Clinical Engineering Training Scheme

The Scottish Medical Physics and Clinical Engineering Training Scheme is a well-established route to becoming a clinical engineer in the NHS.

As a trainee clinical engineer, you'll complete a master's degree at SCQF level 11 in your first year. In the second year, you'll get experience working in different clinical engineering specialisms. In year 3, you'll focus on a single area to specialise in or lead an innovation project related to your chosen specialism.

Once you complete your training, you'll register as a clinical scientist with the Health and Care Professions Council.

You can apply for training opportunities on our recruitment website.

Find your ideal role in the NHS



Learn more about becoming a clinical engineer - careers.nhs.scot/clinical-engineer

Clinical photographer

Clinical photographers produce digital photographs to record and monitor a patient's medical condition and assess the effectiveness of surgery or treatment.

They also create images of patients and pathological materials using specialised techniques, including:

- dermoscopy
- ophthalmic imaging
- 3D imaging

Some clinical photographers take photos and videos for teaching, research, publication, and medico-legal purposes.

How to become a clinical photographer

You'll need an undergraduate honours degree in Clinical Photography at SCQF level 10 accredited by the Institute of Medical Illustrators (IMI).

Training opportunities

You can apply for training opportunities on our recruitment website if you have an undergraduate degree in Photography.



As a trainee clinical photographer, you'll complete a postgraduate certificate in Clinical Photography at SCQF level 11 to become qualified. You can then join the Academy for Healthcare Science Practitioner Register.

Other routes

Some clinical photographers start their careers as clinical photography assistants. You can apply for these roles with an HND in Photography at SCQF level 8.

You'll find more about SCQF levels on the Scottish Credit and Qualifications Framework (SCQF) website. You can also search for college courses and university degree programmes on My World of Work.



Find your ideal role in the NHS



Learn more about becoming a clinical photographer -
careers.nhs.scot/clinical-photographer

Clinical technologist in clinical engineering

Clinical technologists in clinical engineering calibrate, maintain, monitor, test, and repair specialist equipment and medical devices.

They work in these areas:

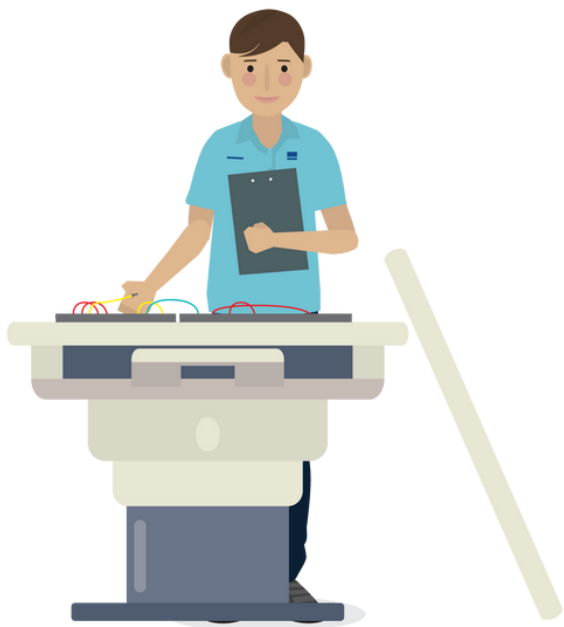
- medical engineering
- radiation engineering
- rehabilitation engineering
- renal technology

How to become a clinical technologist in clinical engineering

You must complete the Institute of Physics and Engineering in Medicine (IPEM) Clinical Technologist Training Scheme to become a clinical technologist in clinical engineering. You'll need a qualification at SCQF level 7 or above to apply.

You'll find more information about SCQF levels on the Scottish Credit and Qualifications Framework (SCQF) website.

You can also search for college courses and university degree programmes on My World of Work.



IPEM Clinical Technologist Training Scheme

The IPEM Clinical Technologist Training Scheme at SCQF level 9 is delivered in the workplace.

As a trainee, you'll have a training plan and learn how to maintain and monitor complex equipment so it can be used safely. During the 2-year programme, your practical skills will be assessed. You'll also complete a portfolio of work to achieve the IPEM diploma.

Once qualified, you can join the Register of Clinical Technologists.

Training opportunities are advertised on our recruitment website.

Other training programmes

Some health boards in Scotland offer opportunities to learn while you earn through apprenticeship-style programmes. You can also apply for these training programmes on our recruitment website.

Find your ideal role in the NHS



Learn more about becoming a clinical technologist in clinical engineering -

Clinical technologist in medical physics

Clinical technologists in medical physics work in one of three specialist areas:

- **Nuclear medicine** – using gamma cameras to take images of the inside of the body for diagnosis and radiopharmaceuticals to treat patients.
- **Radiation physics** – monitoring patients, staff, and the environment for hazards arising from the medical use of ionising and non-ionising radiation.
- **Radiotherapy physics** – treatment planning, dose measurement, and quality control of systems used in radiotherapy treatment.

How to become a clinical technologist in medical physics

You must complete the Institute of Physics and Engineering in Medicine (IPEM) Clinical Technologist Training Scheme to become a clinical technologist in medical physics.



You'll need a qualification at SCQF level 7 or above to apply. For example:

- HNC Applied Sciences at SCQF level 7.
- HND Mechanical Engineering at SCQF level 8.
- BSc (Hons) Physics at SCQF level 10.
- BSc (Hons) Radiography at SCQF level 10.

IPEM Clinical Technologist Training Scheme

The IPEM Clinical Technologist Training Scheme at SCQF level 9 is delivered in the workplace. During the 2-year programme, your practical skills will be assessed. You'll also complete a portfolio of work to achieve the IPEM diploma. Once qualified, you can join the Register of Clinical Technologists.

Training opportunities are advertised on our recruitment website.

Other training programmes

Some health boards in Scotland offer opportunities to learn while you earn through apprenticeship-style programmes. You can also apply for these training programmes on our recruitment website.

Find your ideal role in the NHS



Learn more about becoming a clinical technologist in medical physics - careers.nhs.scot/clinical-technologist-in-medical-physics

Medical physicist

Medical physicists use their knowledge of physics to bring together scientific methods and clinical technology to help diagnose illnesses and treat patients. It could include installing and testing new equipment to improve cancer treatment or developing new imaging techniques to track organ function.

Medical physicists work in lots of areas of the NHS, including:

- radiotherapy
- radiation protection
- imaging physics
- non-ionising radiation
- nuclear medicine physics
- medical equipment management

How to become a medical physicist

You'll need to complete a postgraduate-level work-based training programme to become a medical physicist in the NHS.

Scottish Medical Physics and Clinical Engineering Training Scheme

As a trainee medical physicist, you'll complete the Scottish Medical Physics and Clinical Engineering Training Scheme.

During the training programme, you'll do a master's degree at SCQF level 11 in your first year. You'll then have the opportunity to work in different areas of medical physics to get experience. In your final year of training, you'll choose an area to specialise in or lead an innovation project related to your chosen specialism.

Once you complete your training, you'll register as a clinical scientist with the Health and Care Professions Council.



Find your ideal role in the NHS



Learn more about becoming a medical physicist -
careers.nhs.scot/medical-physicist

Reconstructive scientist

Reconstructive scientists are also known as maxillofacial prosthetists.

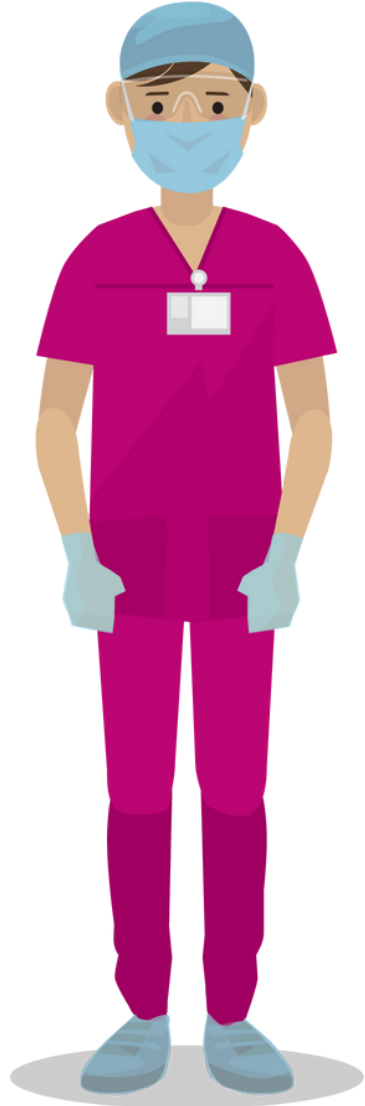
They are registered clinical scientists who specialise in prosthetic reconstruction with patients who need corrective treatment for:

- congenital abnormalities
- deformities following cancer treatment
- burns and other traumatic injuries

They design, construct, and fit bespoke medical devices, including:

- realistic silicone or acrylic prostheses
- therapeutic splints
- titanium skull and jaw plates

Once the prostheses or surgical implant has been fitted, it is monitored over time to make sure it continues to meet the patient's needs.



How to become a reconstructive scientist

There are different education and training pathways to becoming a reconstructive scientist in the NHS.

NHS Scientist Training Programme (STP)

The NHS Scientist Training Programme is one route you can take to become a reconstructive scientist. It is a 3-year work-based learning programme supported by a university-accredited master's degree at SCQF 11.

To join the programme, you must have an undergraduate honours degree in Dental Technology at SCQF level 10 accredited by the General Dental Council (GDC). You'll also need experience as a GDC-registered dental technician.

Once you complete the programme, you'll register as a clinical scientist with the Health and Care Professions Council.

You can apply for training opportunities on our recruitment website.

Find your ideal role in the NHS



Learn more about becoming a reconstructive scientist -

careers.nhs.scot/reconstructive-scientist

Your route to an NHS career in medical physics and clinical engineering

Making your school subject choices.

Role	Entry requirements	School subjects
Clinical engineer	Undergraduate honours degree at SCQF level 10.	<ul style="list-style-type: none"> • English • Maths • Computer Science • Design and Manufacture • Engineering Science • Physics
Clinical technologist in clinical engineering	Higher National Certificate (HNC) at SCQF level 7, Higher National Diploma (HND) at SCQF level 8, or an undergraduate honours degree at SCQF level 10.	<ul style="list-style-type: none"> • English • Maths • Physics • Design and Technology • Computer Science • Biology
Clinical technologist in medical physics	Higher National Certificate (HNC) at SCQF level 7, Higher National Diploma (HND) at SCQF level 8, or an undergraduate honours degree at SCQF level 10.	<ul style="list-style-type: none"> • English • Maths • Physics • Design and Technology • Computing Science • Biology
Clinical photographer	Undergraduate honours degree in Clinical Photography at SCQF level 10 or undergraduate degree in Photography and a postgraduate certificate in Clinical Photography at SCQF level 11.	<ul style="list-style-type: none"> • English • Maths • Administration and IT • Photography • Art and Design • Graphic Communication
Medical physicist	Undergraduate honours degree at SCQF level 10.	<ul style="list-style-type: none"> • English • Maths • Physics • Engineering Science • Biology • Computing Science
Reconstructive scientist	Undergraduate honours degree at SCQF level 10 and registration with the General Dental Council (GDC) as a dental technician.	<ul style="list-style-type: none"> • English • Maths • Biology • Physics • Design and Technology • Engineering Science

Bioinformatics and data science

In bioinformatics and data science, bioinformaticians study and analyse large amounts of biological data to support patient care.

They work with other healthcare science staff to develop and improve the software applications and methods used to acquire, organise, store, and analyse biological data.

Discover some of the roles you'll find in bioinformatics and data science.

Bioinformatician

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Bioinformatician

Clinical bioinformatics combines computing science with medicine, information science, biology, statistics, and mathematics.

Bioinformaticians analyse biological data to support service delivery and patient care. In the NHS, they work in different areas of the service, including:

- clinical genomics
- pathogen genomics

Bioinformaticians create and maintain databases specifically designed to organise and store biological information.

They also write code, develop algorithms, and use bioinformatics software to process and analyse data.

Bioinformaticians present the results of their analysis in reports, which can include a description of the methods used for analysis and visualisations to represent the data.



How to become a bioinformatician

To become a bioinformatician in the NHS, you'll need a master's degree or postgraduate certificate in Bioinformatics at SCQF level 11. A postgraduate-level qualification in a related subject may also be considered. You can apply for opportunities on our recruitment website.

Clinical scientist equivalence recognition

Bioinformaticians can apply to become clinical scientists in bioinformatics to progress in their careers.

If you already have significant professional NHS experience in bioinformatics or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition. It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in bioinformatics.

You'll submit a portfolio of work to the Academy for Healthcare Science for assessment and attend an interview. You can register with the Health and Care Professions Council as a clinical scientist if successful.

Find your ideal role in the NHS



Learn more about becoming a bioinformatician -
careers.nhs.scot/bioinformatician

Your route to an NHS career in bioinformatics and data science

Making your school subject choices.

Role	Entry requirements	School subjects
Bioinformatician	Postgraduate-level qualification at SCQF level 11.	<ul style="list-style-type: none">• English• Maths• Computer Science• Biology• Chemistry• Engineering Science

Life sciences

Life sciences is divided into 4 main areas:

- blood sciences
- cell sciences
- gene sciences
- infection sciences

Healthcare science staff in these fields test and analyse blood, tissue, and other biological samples in hospital laboratories. Their work impacts the clinical decisions that lead to an accurate diagnosis and the correct treatment for a patient's medical condition, injury, or disease.

Discover some of the roles you'll find in life sciences.

Anatomical pathology technologist

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Assistant practitioner in life sciences

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Associate practitioner in life sciences

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Biomedical scientist

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Clinical scientist in embryology

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Clinical scientist in genetics and molecular pathology

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Clinical scientist in immunology

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Decontamination technician

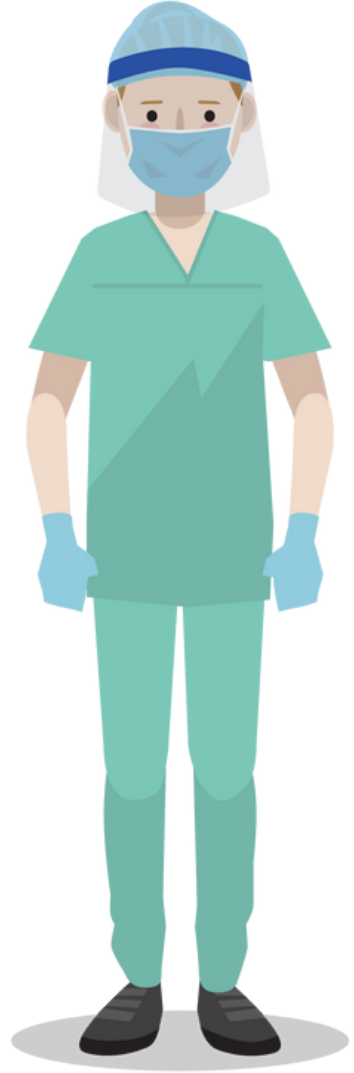
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Anatomical pathology technologist

Anatomical pathology technologists (ATPs) work in hospital mortuaries, assisting pathologists with post-mortems.

They also:

- Receive and release bodies from the mortuary.
- Make sure tools and equipment are clean and ready for use.
- Take and record samples, specimens, and organs for lab analysis, transplant, or research.
- Reconstruct and clean the deceased after the post-mortem.
- Provide support and advice to the deceased's bereaved families and friends.



How to become an ATP

You can apply for training opportunities on our recruitment website.

Training programme

As a trainee APT, you'll complete a Level 3 Diploma in Healthcare Science (Anatomical Pathology Technology). It is equivalent to SCQF level 6. You'll also learn the skills and knowledge you need to assist with a standard post-mortem, arrange viewings of the deceased, keep records, and oversee legal documentation.

Once you complete your training, you can join the Academy for Healthcare Science Practitioner Register.

Find your ideal role in the NHS



Learn more about becoming an anatomical pathology technologist -

careers.nhs.scot/anatomical-pathology-technologist

Assistant practitioner in life sciences

Assistant practitioners carry out essential tasks in the laboratory, such as:

- Registering patient biological samples on the laboratory information management system.
- Preparing biological samples for analysis.
- Updating written and electronic records.
- Stock control.
- Assisting in the maintenance of laboratory equipment.
- Making sure that the laboratory is a clean and safe working environment.

They are also known as healthcare science support workers or biomedical science support workers.



How to become an assistant practitioner in life sciences

You can start your NHS career by doing a Modern Apprenticeship. You'll find information about becoming an apprentice on our careers website.

There are other routes into this role. If you want to work in a hospital laboratory, you can apply for assistant practitioner vacancies on our recruitment website.

Find your ideal role in the NHS



Learn more about becoming an assistant practitioner in life sciences - careers.nhs.scot/assistant-practitioner-in-life-sciences

Associate practitioner in life sciences

Associate practitioners in life sciences provide technical and analytical support to healthcare science practitioners, biomedical scientists, and clinical scientists in hospital laboratories.

They work in one of four areas:

- blood sciences
- cell sciences
- gene sciences
- infection sciences

In the laboratory, you'll process and test biological samples using a range of technologies and send results to biomedical scientists for validation and authorisation.

You'll also calibrate, operate, and maintain specialised testing equipment, including automated analysers.



How to become an associate practitioner in life sciences

Some healthcare science associate practitioners start their careers as healthcare science support workers in the lab. You can also apply for our associate practitioner vacancies if you have an HND in Applied Biological Sciences or an equivalent qualification at SCQF level 8.

You'll find more about SCQF levels on the Scottish Credit and Qualifications Framework (SCQF) website. You can also search for college courses on My World of Work.

Find your ideal role in the NHS



Learn more about becoming an associate practitioner in life sciences - careers.nhs.scot/associate-practitioner-in-life-sciences

Biomedical scientist

Biomedical scientists carry out a range of complex scientific laboratory tests and investigations to help diagnose, monitor, and manage diseases.

You'll also produce reports to provide clinicians and other healthcare professionals with test results.

They specialise in one of four areas of biomedical science:

- blood sciences
- cell sciences
- gene sciences
- infection sciences

As a biomedical scientist, you could be doing the following:

- Analyse biological samples for diseases or abnormalities.
- Test organ function.
- Process and test blood donations.
- Make sure blood products are safe to use.
- Monitor the effectiveness of treatment and medicines.



How to become a biomedical scientist

You'll need an undergraduate honours degree in Biomedical Science at SCQF level 10 to do this role. The degree programme must be accredited by the Institute of Biomedical Science (IBMS).

Education and training pathway

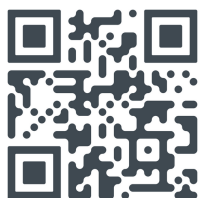
Some Biomedical Science degree programmes include a clinical laboratory placement where you'll complete your IBMS Certificate of Competence Portfolio.

If the degree programme is not IBMS accredited, you must request an IBMS degree assessment. This will outline the supplementary learning you'll need to complete.

Once you have completed your accredited academic qualifications, clinical laboratory training, and registration portfolio, you can apply for registration as a biomedical scientist with the Health and Care Professions Council.

You can apply for biomedical scientist and trainee biomedical scientist opportunities on our recruitment website.

Find your ideal role in the NHS



Learn more about becoming a biomedical scientist -
careers.nhs.scot/biomedical-scientist

Clinical scientist in embryology

Clinical scientists working in embryology are reproductive scientists who help people with sub-fertility or infertility to have children.

They carry out diagnostic tests to determine a patient's fertility level and provide information about treatment options.

Assisted reproductive technologies include:

- in vitro fertilisation (IVF)
- intracytoplasmic sperm injection (ICSI)

If fertilisation is successful, the embryos are monitored, and the strongest are selected for transfer to the woman's womb.

How to become a clinical scientist in embryology

There are different education and training pathways to becoming a clinical scientist in embryology.

Clinical scientist training programme

Clinical scientist training has 2 pathways. You'll complete one of the following 3-year programmes in the workplace:

- Scientist Training Programme (STP)
- alternative work-based training programme

Throughout your training, you'll learn the skills, knowledge, and experience you need to become a clinical scientist in embryology.

You can apply for training opportunities on our recruitment website.

Clinical scientist equivalence recognition

If you already have significant professional NHS experience in embryology or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in embryology.

You'll submit a portfolio of work to the Academy for Healthcare Science or the Association of Clinical Scientists for assessment and attend an interview. If successful, you can register with the Health and Care Professions Council as a clinical scientist.



Find your ideal role in the NHS



Learn more about becoming a clinical scientist in embryology - careers.nhs.scot/clinical-scientist-in-embryology.

Clinical scientist in genetics and molecular pathology

Clinical scientists working in genetics and molecular pathology analyse genetic preparations to identify alterations and abnormalities.

They test for genetic abnormalities in both prenatal and postnatal samples and can provide information on:

- **Carrier status** – identify individuals who may be at risk of passing on a genetic disorder to their children.
- **Diagnosis** – identify people with inherited and acquired conditions.
- **Prognosis and therapeutics** – provide prognostic information and suggest treatment options where relevant.

How to become a clinical scientist in genetics and molecular pathology

There are different education and training pathways to becoming a clinical scientist.

You can apply for training opportunities on our recruitment website.

Clinical scientist training programme

A clinical scientist training programme is one route you can choose. You'll need relevant experience within a diagnostics laboratory setting and a postgraduate degree at SCQF level 11 in one of the following subjects to apply:

- Genetics
- Molecular Biology
- Biomedical Science

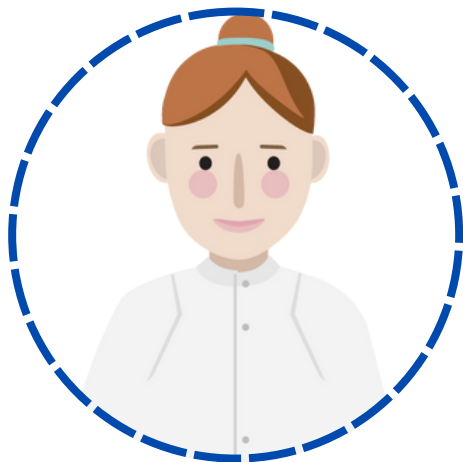
As a trainee, you'll learn the skills, knowledge and experience you need to become a clinical scientist in genetics and molecular pathology. Once you complete the programme, you'll register as a clinical scientist with the Health and Care Professions Council (HCPC).

Clinical scientist equivalence recognition

If you already have significant professional NHS experience in genetics and molecular pathology or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in genetics and molecular pathology.

You'll submit a portfolio of work to the Academy for Healthcare Science or the Association of Clinical Scientists for assessment and attend an interview. If successful, you can register with the HCPC as a clinical scientist.



Find your ideal role in the NHS



Learn more about becoming a clinical scientist in genetics and molecular pathology - careers.nhs.scot/clinical-scientist-in-genetics-and-molecular-pathology

Clinical scientist in immunology

Clinical scientists working in immunology are involved in the diagnosis and management of patients with:

- Diseases resulting from disorders of the immune system.
- Conditions in which immunological treatment is an important part of therapy.

As a clinical scientist in immunology, you'll receive and prepare samples for analysis, validate results, and advise on specific types of treatment for individual patients.

How to become a clinical scientist in immunology

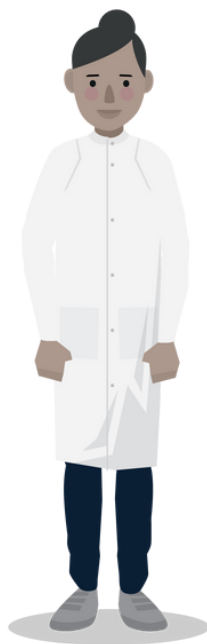
There are different education and training pathways to becoming a clinical scientist.

Clinical scientist training programme

A clinical scientist training programme is one route you can choose.

You'll complete one of the following:

- Scientist Training Programme (STP)
- alternative work-based training programme



Scientist Training Programme (STP)

Throughout your training, you'll learn the skills, knowledge, and experience you need to become a clinical scientist in immunology.

Once your training is complete, you'll register as a clinical scientist with the Health and Care Professions Council (HCPC).

You can apply for training opportunities on our recruitment website.

Alternative work-based training programme

Some health boards offer alternative work-based training programmes if you already have relevant experience within a diagnostics laboratory setting and a postgraduate degree at SCQF level 11.

As a trainee, you'll learn the skills, knowledge, and experience you need to apply for clinical scientist registration via the STP equivalence route.

If successful, you'll register as a clinical scientist with the Health and Care Professions Council (HCPC).

Clinical scientist equivalence recognition

You can apply for equivalence recognition if you already have significant professional NHS experience in immunology or have completed a training programme that does not directly lead to registration as a clinical scientist.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in immunology.

You'll submit a portfolio of work to one of the following organisations for assessment and attend an interview:

- Academy for Healthcare Science
- Association of Clinical Scientists
- Institute of Biomedical Science

If successful, you can register with the HCPC as a clinical scientist.

Find your ideal role in the NHS



Learn more about becoming a clinical scientist in immunology - careers.nhs.scot/clinical-scientist-in-immunology.

Decontamination technician

Decontamination technicians decontaminate medical devices to make sure they are sterilised and ready for reuse.

There are 3 different areas of the decontamination unit, known as:

- washroom
- cleanroom
- steriliser room

As a decontamination technician, you'll work with a variety of medical devices.

You'll carefully follow guidelines and procedures to make sure they're properly decontaminated.

How to become a decontamination technician

You'll need to complete a work-based training programme to become a decontamination technician in the NHS.

You can apply for training opportunities on our recruitment website.



Institute of Decontamination Sciences (IDSc) training programme

As a trainee, you'll complete the IDSc training programme in the workplace. It is equivalent to SCQF level 6. Throughout your training, you'll learn all the skills you need to work in each area of the unit. You'll also have a mentor and be supported by colleagues.

Once you complete the programme, you'll sit the IDSc Technical Certificate exam.

Find your ideal role in the NHS



Learn more about becoming a decontamination technician -
careers.nhs.scot/decontamination-technician

Your route to an NHS career in life sciences

Making your school subject choices.

Role	Entry requirements	School subjects
Anatomical pathology technologist	National 5's at SCQF level 5 or equivalent.	<ul style="list-style-type: none"> • English • Maths • Biology • Chemistry • Physics
Assistant practitioner in life sciences	National 5's at SCQF level 5 or equivalent.	<ul style="list-style-type: none"> • English • Maths • Biology
Associate practitioner in life sciences	Higher National Diploma (HND) at SCQF level 8 or equivalent.	<ul style="list-style-type: none"> • English • Maths • Biology
Biomedical scientist	Undergraduate honours degree in Biomedical Science at SCQF level 10 accredited by the Institute of Biomedical Science (IBMS).	<ul style="list-style-type: none"> • English • Maths • Chemistry • Biology • Statistics
Clinical scientist in embryology	STP: Undergraduate honours degree at SCQF level 10. Non-STP: Postgraduate degree at SCQF level 11.	<ul style="list-style-type: none"> • English • Maths • Biology • Chemistry
Clinical scientist in genetics and molecular pathology	Postgraduate-level qualification at SCQF level 11.	<ul style="list-style-type: none"> • English • Maths • Biology • Chemistry
Clinical scientist in immunology	STP: Undergraduate honours degree at SCQF level 10. Non-STP: Postgraduate degree at SCQF level 11	<ul style="list-style-type: none"> • English • Maths • Biology • Chemistry
Decontamination technician	National 5's at SCQF level 5 or equivalent.	<ul style="list-style-type: none"> • English • Maths

Physiological sciences

Clinical physiologists use specialist equipment, techniques, and technology to investigate our body's physiological functions.

You'll find them working in various patient-facing settings, including inpatient and outpatient clinics, hospital wards, and operating theatres. They help diagnose diseases and abnormalities and provide specialist information so that doctors can plan medical treatment.

Clinical physiologists work in one of these areas:

- **Audiology** – helping to assess a person's hearing and providing support and advice to those using assistive listening devices.
- **Cardiac sciences** – carrying out a range of investigations to obtain diagnostic information about a patient's heart.
- **Gastrointestinal physiology** – carrying out tests to assess a person's gastrointestinal function.
- **Neurophysiology** – preparing patients for neurophysiology investigations and providing support.
- **Ophthalmic and vision science** – measuring a patient's field of vision and pressure in their eye.
- **Respiratory physiology** – carrying out a range of tests to measure a patient's breathing.
- **Sleep physiology** – carrying out a range of tests, including overnight sleep studies, to improve a patient's sleep quality.
- **Vascular science** – carrying out ankle brachial pressure index to test for the presence of peripheral arterial disease.
- **Clinical perfusion** – monitoring and managing a patient's blood flow, body temperature, and respiratory functions during cardiac surgery.

Physiological sciences

Discover some of the roles you'll find in physiological sciences.

Assistant practitioner in physiological sciences

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Audiologist

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Cardiac clinical physiologist

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Clinical physiologist in neurophysiology

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Respiratory physiologist

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Sleep physiologist

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Assistant practitioner in physiological sciences

Assistant practitioners in physiological sciences set up and clean clinical equipment, support routine diagnostic testing, and update patient records.

They work in one of these areas:

- audiology
- cardiac sciences
- gastrointestinal physiology
- neurophysiology
- ophthalmic and vision science
- respiratory physiology
- sleep physiology
- vascular science

How to become an assistant practitioner in physiological sciences

You can apply for assistant practitioner vacancies on our recruitment website.



Find your ideal role in the NHS



Learn more about becoming an assistant practitioner in physiological sciences - careers.nhs.scot/assistant-practitioner-in-physiological-sciences

Audiologist

Audiologists help people with hearing loss, tinnitus, complex auditory or sound sensitivity disorders, vestibular disorder, or medical conditions that could affect their hearing or balance.

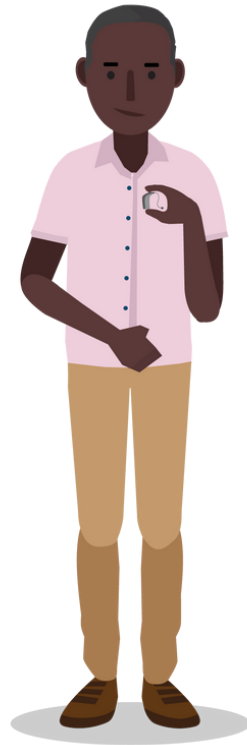
They support patients with the following:

- Selecting and fitting hearing aids.
- Adjusting to their hearing loss.
- Getting the most from technology.

Audiologists also monitor patients over time to check that therapeutic rehabilitation is improving their wellbeing and quality of life.

How to become an audiologist

One way to become an audiologist in the NHS is to apply for a clinical physiology undergraduate training programme on our recruitment website. Alternatively, you can complete a postgraduate programme in Audiology at university.



Clinical physiology undergraduate training programme

A widely recognised route is to complete an undergraduate-level training programme.

As a trainee audiologist, you'll be employed by an NHSScotland Health Board while you complete an undergraduate honours degree programme at SCQF level 10. You'll also receive training within the department to provide you with the skills, knowledge, and experience you'll need to become an audiologist.

When you complete training, you can register as a healthcare science practitioner with the Academy for Healthcare Science (AHCS).

Postgraduate route

If you already have a related undergraduate degree, Queen Margaret University offers an MSc Audiology programme at SCQF level 11. When you graduate, you'll register as a healthcare science practitioner with the AHCS.

Clinical scientist equivalence recognition

Audiologists can apply to become clinical scientists to progress in their careers.

If you already have significant professional NHS experience in audiology or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in audiology.

You'll submit a portfolio of work to the AHCS or the Association of Clinical Scientists for assessment and attend an interview. If successful, you can register with the Health and Care Professions Council as a clinical scientist.



Find your ideal role in the NHS



Learn more about becoming an audiologist -
careers.nhs.scot/audiologist

Cardiac clinical physiologist

Cardiac clinical physiologists use specialist equipment, including electrocardiogram (ECG) recording machines and ultrasound scanners, to see how well a person's heart is functioning. They also assist with specialist procedures in the catheter lab.

As a cardiac clinical physiologist, you'll also programme and optimise implantable cardiac devices. These devices monitor and regulate heartbeats in patients with heart rhythm problems or those at risk of cardiac arrest.

How to become a cardiac clinical physiologist

There are different education and training pathways to becoming a cardiac clinical physiologist.

Whichever route you choose, you must complete an undergraduate degree programme.

Clinical physiology undergraduate training programme

A widely recognised route is to complete an undergraduate-level training programme.

As a trainee cardiac clinical physiologist, you'll be employed by an NHS Scotland Health Board while you complete an undergraduate honours degree programme at SCQF level 10.

You'll also receive training within the department to provide you with the skills, knowledge, and experience you'll need to become a cardiac clinical physiologist. When you complete training, you can register as a healthcare science practitioner with the Academy for Healthcare Science (AHCS).

Other work-based training programmes

Some health boards offer alternative work-based training programmes if you already have an undergraduate honours degree in Healthcare Science (Cardiac Physiology) at SCQF level 10. Other science degree subjects may be accepted.

As a trainee, you'll complete a 3-year practical and theoretical training programme. When you complete training, you can register as a healthcare science practitioner with the AHCS.

You can apply for all training opportunities on our recruitment website.



Clinical scientist equivalence recognition

Cardiac clinical physiologists can apply to become clinical scientists to progress in their careers.

If you already have significant professional NHS experience in cardiac physiology or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in cardiac physiology.

You'll submit a portfolio of work to the AHCS or the Association of Clinical Scientists for assessment and attend an interview. If successful, you can register with the Health and Care Professions Council as a clinical scientist.

Find your ideal role in the NHS



Learn more about becoming a cardiac clinical physiologist -
careers.nhs.scot/cardiac-clinical-physiologist

Clinical perfusionist

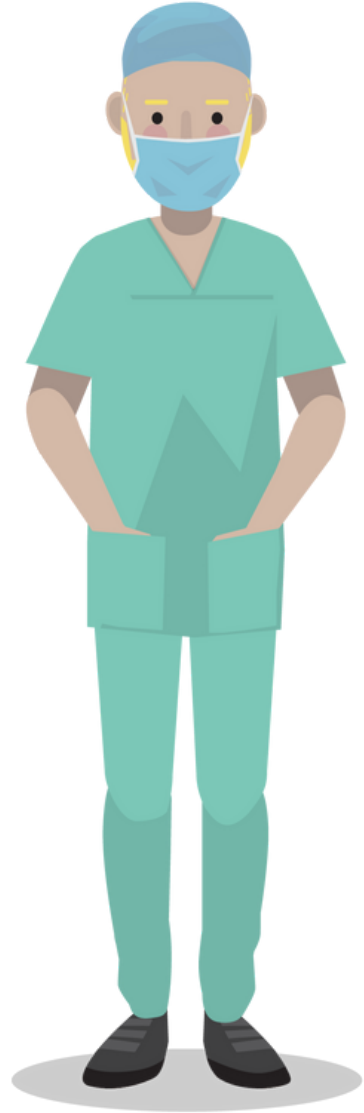
Clinical perfusionists monitor and manage a patient's blood flow, body temperature, and respiratory functions during cardiac surgery. They do this using a cardiopulmonary bypass machine.

It temporarily takes over the functions of the heart and lungs and pumps oxygenated blood around the body at the right temperature.

In addition, clinical perfusionists set up and manage equipment used to support patients during:

- isolated limb perfusion
- extracorporeal membrane oxygenation therapy

Clinical perfusionists are also known as clinical perfusion scientists.



How to become a clinical perfusionist

To become a clinical perfusionist, you'll need to complete a pre-registration training programme. You'll need an undergraduate honours degree at SCQF level 10 in a relevant science or nursing subject to apply.

The programme includes the following:

- accredited workplace training
- MSc in Perfusion Science at SCQF level 11

Once you complete the training programme, you'll sit the Certificate of Accreditation in Basic Clinical Perfusion Sciences exam.

As a qualified clinical perfusionist, you must register with the College of Clinical Perfusion Scientists. You'll then be ready to practise in the NHS.

You can apply for training opportunities on our recruitment website.

Find your ideal role in the NHS



Learn more about becoming a clinical perfusionist - careers.nhs.scot/clinical-perfusionist

Clinical physiologist in neurophysiology

Clinical physiologists in neurophysiology investigate the function of patients' central and peripheral nervous systems.

They use specialist equipment to diagnose and monitor neurological conditions such as epilepsy, multiple sclerosis, and carpal tunnel syndrome.

How to become a clinical physiologist in neurophysiology

There are different education and training pathways to becoming a clinical physiologist in neurophysiology. You can apply for training opportunities on our recruitment website.

Whichever route you choose, you must complete an undergraduate degree programme.

Clinical physiology undergraduate training programme

A widely recognised route is to complete an undergraduate-level training programme.

As a trainee, you'll be employed by an NHSScotland Health Board while you complete an undergraduate honours degree programme at SCQF level 10.

You'll also receive training within the department to provide you with the skills, knowledge, and experience you'll need to become a clinical physiologist in neurophysiology.

When you complete training, you can register as a healthcare science practitioner with the Academy for Healthcare Science (AHCS).

Other work-based training programmes

Some health boards offer alternative work-based training programmes if you already have an undergraduate honours degree in Healthcare Science (Neurophysiology) at SCQF level 10. Other science degree subjects may be accepted.

As a trainee, you'll complete a 3-year practical and theoretical training programme. You'll then apply for AHCS registration via the practitioner equivalence route.

You can apply for all training opportunities on our recruitment website.



Clinical scientist equivalence recognition

Clinical physiologists in neurophysiology can apply to become clinical scientists to progress in their careers.

If you already have significant professional NHS experience in neurophysiology or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in neurophysiology.

You'll submit a portfolio of work to the AHCS or the Association of Clinical Scientists for assessment and attend an interview. If successful, you can register with the Health and Care Professions Council as a clinical scientist.

Find your ideal role in the NHS



Learn more about becoming a clinical physiologist in neurophysiology - careers.nhs.scot/clinical-physiologist-in-neurophysiology.

Respiratory physiologist

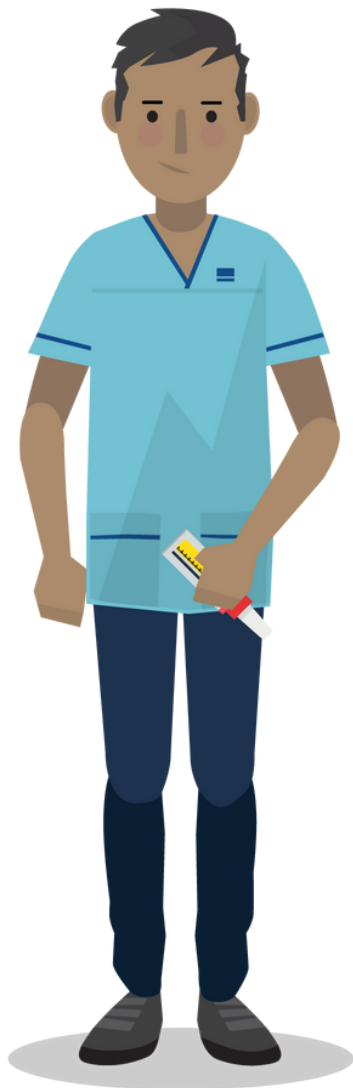
Respiratory physiologists diagnose and treat patients with lung disease and breathing difficulties, including asthma and cystic fibrosis.

Patients may be referred from other departments, including cardiology, thoracic surgery, or clinical oncology, so their fitness for surgery or treatment can be assessed.

How to become a respiratory physiologist

There are different education and training pathways to becoming a respiratory physiologist. You can apply for training opportunities on our recruitment website.

Whichever route you choose, you must complete an undergraduate degree programme.



Clinical physiology undergraduate training programme

A widely recognised route is to complete an undergraduate-level training programme.

As a trainee respiratory physiologist, you'll be employed by an NHSScotland Health Board while you complete an undergraduate honours degree programme at SCQF level 10.

You'll also receive training within the department to provide you with the skills, knowledge, and experience you'll need to become a respiratory physiologist. When you complete training, you can register as a healthcare science practitioner with the Academy for Healthcare Science (AHCS).

Other work-based training programmes

Some health boards offer alternative work-based training programmes if you already have an undergraduate honours degree in a related science subject at SCQF level 10.

As a trainee, you'll complete a 2-year practical and theoretical training programme. You can then register as a healthcare science practitioner with the AHCS.

You can apply for all training opportunities on our recruitment website.

Clinical scientist equivalence recognition

Respiratory physiologists can apply to become clinical scientists to progress in their careers.

If you already have significant professional NHS experience in respiratory physiology or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in respiratory physiology.

You'll submit a portfolio of work to the AHCS or the Association of Clinical Scientists for assessment and attend an interview. If successful, you can register with the Health and Care Professions Council as a clinical scientist.

Find your ideal role in the NHS



Learn more about becoming a respiratory physiologist -
careers.nhs.scot/respiratory-physiologist

Sleep physiologist

Sleep physiologists help people to improve the quality of their sleep.

They investigate, diagnose, and treat sleep disorders using monitoring devices and specialist equipment.

How to become a sleep physiologist

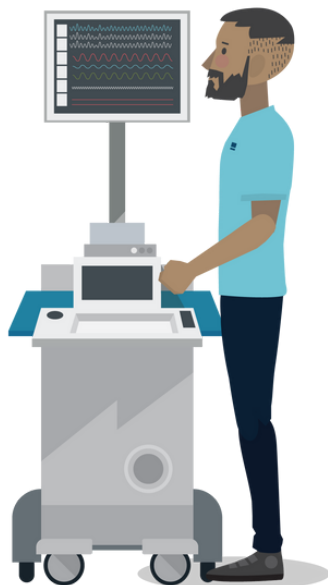
One route to becoming a sleep physiologist is to complete an undergraduate honours degree programme at SCQF level 10 before applying for training opportunities in the NHS.

Some UK universities offer an undergraduate degree in Healthcare Science (Respiratory and Sleep Physiology).

Other related science degree subjects include:

- Physiology
- Physiology and Sports Science
- Sport and Exercise Science
- Physiological Sciences

As a trainee, you'll complete a 3-year practical and theoretical training programme. You can then register as a healthcare science practitioner with the Academy for Healthcare Science (AHCS).



Other work-based training programmes

Some health boards offer alternative work-based training programmes if you already have an undergraduate honours degree in a related science subject at SCQF level 10.

As a trainee, you'll complete a practical and theoretical training programme. You can then register as a healthcare science practitioner with the AHCS.

You can apply for training opportunities on our recruitment website.



Clinical scientist equivalence recognition

Sleep physiologists can apply to become clinical scientists to progress in their careers. If you already have significant professional NHS experience in sleep physiology or have completed a training programme that does not directly lead to registration as a clinical scientist, you can apply for equivalence recognition.

It is a route you can take to demonstrate that you already have the skills, knowledge, and experience to become a clinical scientist in sleep physiology.

You'll submit a portfolio of work to the AHCS or the Association of Clinical Scientists for assessment and attend an interview. If successful, you can register with the Health and Care Professions Council as a clinical scientist.

Find your ideal role in the NHS



Learn more about becoming a sleep
physiologist -
careers.nhs.scot/sleep-physiologist

Your route to an NHS career in physiological sciences

Making your school subject choices.

Role	Entry requirements	School subjects
Assistant practitioner in physiological sciences	National 5's at SCQF level 5 or equivalent.	<ul style="list-style-type: none"> • English • Maths • Biology • Physics
Audiologist	Highers at SCQF level 6 or equivalent.	<ul style="list-style-type: none"> • English • Biology • Maths • Physics • Psychology • Chemistry
Cardiac clinical physiologist	Highers at SCQF level 6 or equivalent.	<ul style="list-style-type: none"> • English • Maths • Chemistry • Biology • Physics
Clinical perfusionist	Undergraduate honours degree at SCQF level 10 in a relevant science or nursing subject.	<ul style="list-style-type: none"> • English • Maths • Chemistry • Biology • Physics
Clinical physiologist in Neurophysiology	Highers at SCQF level 6 or equivalent.	<ul style="list-style-type: none"> • English • Biology • Maths • Physics • Computing Science • Engineering Science
Respiratory physiologist	Highers at SCQF level 6 or equivalent.	<ul style="list-style-type: none"> • English • Maths • Chemistry • Biology • Physics
Sleep physiologist	Highers at SCQF level 6 or equivalent.	<ul style="list-style-type: none"> • English • Maths • Chemistry • Biology • Physics

Discover more about healthcare science careers

NHSScotland Careers

For more healthcare science career inspiration, visit our website and follow us on social media.



careers.nhs.scot/healthcare-science



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[linkedin.com/company/nhsscotland-careers](https://www.linkedin.com/company/nhsscotland-careers)



twitter.com/NHSScotCareers

NHSScotland Jobs

Find vacancies, including Modern Apprenticeships and training opportunities on our recruitment website.



apply.jobs.scot.nhs.uk

NHS Education for Scotland: healthcare science

Visit the NHS Education for Scotland (NES) healthcare science training website and follow the team on social media.



**Healthcare science education and training -
hcstraining.nhs.scot**



instagram.com/hcsnes



facebook.com/hcsnes



twitter.com/hcsnes

Scottish Healthcare Science

Follow Scottish Healthcare Science on Twitter.



twitter.com/ScottishHCS

More useful websites

Academy for Healthcare Science (AHCS)



ahcs.ac.uk

Association of Clinical Scientists (ACS)



assclinsci.org

Health and Care Professions Council (HCPC)



hcpc-uk.org

Institute of Physics and Engineering in Medicine
(IPEM)



ipem.ac.uk

Institute of Biomedical Science (IBMS)



ibms.org

Academy of Clinical Science and Laboratory
Medicine (ACSLM)



acslm.ie

My World of Work



myworldofwork.co.uk

Scottish Credit and Qualifications Framework (SCQF)



scqf.org.uk

Other healthcare science professional bodies



ahcs.ac.uk/professional-bodies-council/our-membership/

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Designed and typeset by the NHSScotland Careers team.