

Clinical Perfusionist

Clinical perfusionists, or clinical perfusion scientists are part of the surgery team. They specialise in setting up and controlling the heart-lung bypass equipment which keeps a patient alive during open-heart surgery, or other procedures such as liver transplant. The equipment completely takes over the functions of the heart and lungs: oxygenating the blood, removing carbon dioxide, restoring the temperature and pumping it back into and around the body. They also support patients through isolated limb perfusion and extracorporeal membrane oxygenation (ECMO).

The Work

You could be:

- monitor and manage a patient's blood flow, body temperature and respiratory functions during cardiac surgery
- setting up and monitoring intra-aortic balloon pumps that provide additional support in cases of cardiac weakness
- setting up, operating and controlling the mechanical and electronic heart-lung machine
- keeping blood and oxygen circulating to a patient's arm or leg separate from the rest of the body during isolated limb perfusion
- oxygenating a patient's blood outside the body using an ECMO machine
- continually monitoring the patient's condition throughout the operation
- interpreting and controlling the balance of gases and chemicals in the blood
- participating in complicated procedures such as minimal access valve repairs
- perhaps helping with research finding improved methods of treatment.

Pay

Trainee clinical perfusionists working in the NHS start on Band 7, £52,769 to £61,377 a year.

After completing the training, clinical perfusionists are on Band 8a, £65,032 to £70,202 a year. The current pay scales are from April 2025.

Conditions

- You will work in a hospital, spending most of your time in operating theatres, anaesthetic areas, recovery rooms or intensive care units.
- You will work a 37-hour week with evening and weekend shifts and might have to be on call for emergencies. Part time work might be available.
- You would wear a uniform and other protective clothing, such as a face mask, when in sterile working areas.

Getting In

- To enter as a trainee clinical perfusionist you should have an Honours degree (minimum 2:2) in biological

sciences or life sciences (SCQF Level 10).

- Minimum entry requirements for a science degree course are 4-5 Highers. You should check with institutions' websites for individual requirements.
- You need to apply for a trainee clinical perfusion scientist job in a hospital which carries out open-heart surgery or organ transplants.

You will find vacancies advertised on the [NHS Scotland Recruitment](#), [NHS Jobs](#) and [Society of Clinical Perfusion Scientists of Great Britain and Ireland \(SCPS\)](#) websites.

What Does It Take

You should be:

- mentally alert and observant
- accurate and willing to pay attention to detail
- able to concentrate intensely for long periods
- interested in science and technology
- practical, with good manual dexterity
- good at working in teams especially during long operations
- caring and empathetic with patients.

Training

- Trainee clinical perfusionists work under the supervision of senior staff, and study towards a Postgraduate Masters (MSc) in Perfusion Science from the University of Bristol. You would attend the university over 2 years part time.
- On completion of the postgraduate qualification, you would be eligible to apply for registration with The College of Clinical Perfusion Scientists of Great Britain and Ireland. This is necessary in order to practise.
- Moving on to more senior jobs may depend on taking more advanced qualifications and doing clinical research.

Getting On

- You would be expected to undertake continuing professional development (CPD) to keep up to date with the latest developments and technology.
- You could move into management or lecturing.
- A British qualification in perfusion is acceptable throughout the world and so you could find work abroad.

Contacts

Institute of Physics and Engineering in Medicine (IPEM)

Tel: 01904 610821

Website: www.ipem.ac.uk

X: @ipemnews

NHS Scotland Careers

Website: www.careers.nhs.scot

Website (2): jobs.scot.nhs.uk

Society of Clinical Perfusion Scientists of Great Britain and Ireland

Email: admin@scps.org.uk

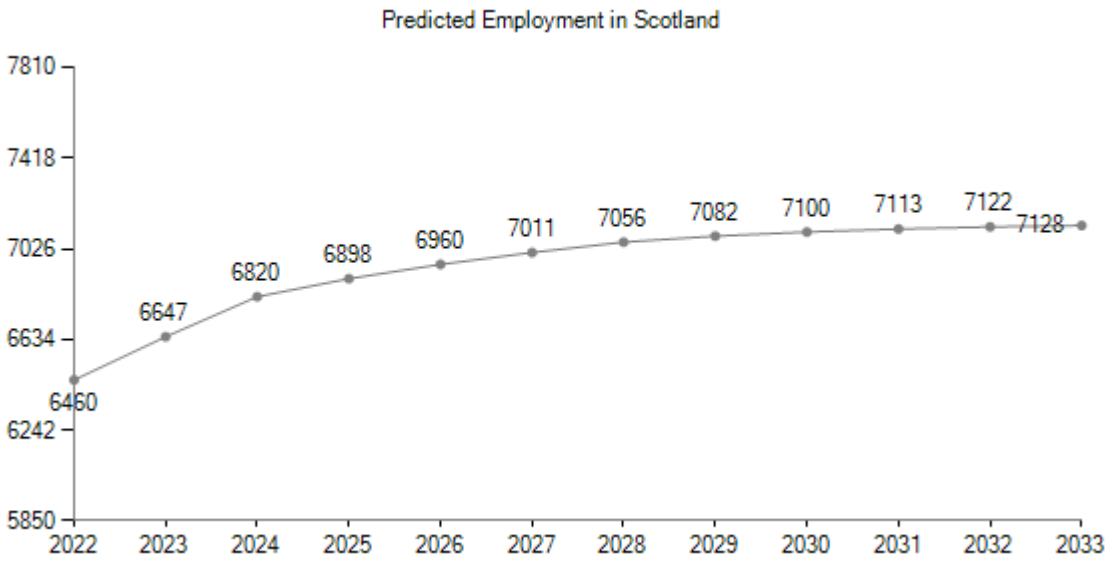
Website: www.scps.org.uk

Statistics

Employment Status : Not available this career.

Past Unemployment - Scotland

No Claimant statistics available for Scotland.



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