

# Paediatric cardiology

Paediatric cardiologists are doctors who diagnose and treat children with cardiac (heart) conditions. They work with patients antenatally (before birth), through childhood and into adulthood.

This page provides useful information on the nature of the work, the common procedures/interventions, sub-specialties and other roles that may interest you.



## Nature of the work

Paediatric cardiology is concerned with diseases of the heart in the growing and developing individual. As well as expertise in heart disease, paediatric cardiologists also need a thorough grounding in general paediatrics, in order to provide all-round patient care.

Paediatric cardiologists broadly treat congenital heart disease (present at birth), arrhythmias (variations in heartbeat rhythm) and disturbances of circulatory function.

The initial assessment performed by the paediatric cardiologist might start with a physical examination using a stethoscope, after which more detailed investigations may be suggested.

Patients often present with complex diagnostic and medical problems and after the initial assessment the paediatric cardiologist then chooses an optimal management plan. They work closely with a wide range of specialists as part of a multidisciplinary team to assess and treat patients.

Paediatric cardiologists play a vital role in the teaching of medical students, doctors, GPs, nurses and paramedical staff. Most are also involved in research.

## Conditions treated

These include:

- cardiovascular [1] collapse in infancy
- cardiac failure in infants and children
- cyanosis in the newborn and beyond (where the skin has a bluish tinge, due to lung or circulatory problems)
- children with heart murmurs [2]
- children and adolescents with chest pain, palpitations, or fainting
- patients with congenital heart disease
- cardiovascular [1] abnormalities in neonatal [3] intensive care [4]
- fetal cardiac abnormalities
- paediatric cardiac transplantation
- assessment of children prior to cardiac surgery
- assessment of children with cardiac disease who are undergoing non-cardiac surgery
- management of critically ill children with cardiac problems
- transposition of the great arteries

## Procedures and interventions

These include:

- electrocardiogram (ECG)
- advanced imaging – CT/MRI [5]
- diagnostic and therapeutic catheterisation
- exercise testing
- cardiac event recording
- chest x-ray
- balloon atrial septostomy – a small hole is created in the upper two chambers of the heart to increase oxygen saturation
- paediatric cardiac transplantation
- ultrasound [6] scans of the heart

## Associated sub-specialties

All consultant paediatric cardiologists complete sub-specialist training in one of the following areas:

- adult congenital heart disease
- fetal cardiology
- advanced imaging (CT/MRI [5])
- diagnostic and therapeutic catheterisation
- invasive electrophysiology and pacing in children and adults with congenial heart disease
- pulmonary hypotension

- heart failure and cardiac transplantation
- advanced echocardiography

## Want to learn more?

Find out more about:

- the working life [7] of someone in paediatric cardiology
- the entry requirements [8] and training and development [9]

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Pay and conditions

This section provides useful information about the pay for junior doctors (doctors in training), specialty doctors, consultants and general practitioners.

Find out more about the current pay scales for doctors [10] and there's more information on the BMA website [11]

NHS employers [12] provides useful advice and guidance on all NHS pay, contracts terms and conditions.

Medical staff working in private sector hospitals, the armed services or abroad will be paid on different scales.

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Where the role can lead

Read about consultant and non-consultant roles in paediatric cardiology, flexible working and about wider opportunities.

### Consultant roles

You can apply for consultant roles six months prior to achieving your Certificate of Completion of Training [13] (CCT [14]). You will receive your CCT [14] at the end of paediatric cardiology training.

Managerial opportunities for consultants include:

- clinical lead - lead NHS consultant for the team
- clinical director - lead NHS consultant for the department
- medical director - lead NHS consultant for the Trust

Most NHS consultants will be involved with clinical and educational supervision of junior doctors.

Here are some examples of education and training opportunities:

- director of medical education - the NHS consultant appointed to the hospital board who is responsible for the postgraduate medical training in a hospital. They work with the postgraduate dean to make sure training meets GMC standards.
- training programme director - the NHS consultant overseeing the education of the local cohort of trainee doctors eg foundation training [15] programme director. This role will be working

within the LETB/deanery

- associate dean - the NHS consultant responsible for management of the entirety of a training programme. This role will be also be working within the LETB/deanery

### **SAS doctor roles**

There are also opportunities to work at non-consultant level, for example as a SAS (Specialist and Associate Specialist) doctor. SAS doctors are non-training roles where the doctor has at least four years of postgraduate training, two of those being in a relevant specialty. Find out more about SAS doctors roles. [16]

### **Other non-training grade roles**

These roles include:

- trust grade
- clinical fellows

### **Academic pathways**

If you have trained on an academic paediatric cardiology pathway or are interested in research there are opportunities in academic medicine.

For those with a particular interest in research, you may wish to consider an academic career in paediatric cardiology. Whilst not essential, some doctors start their career with an Academic Foundation post. This enables them to develop skills in research and teaching alongside the basic competences in the foundation curriculum.

Entry into an academic career would usually start with an Academic Clinical Fellowship (ACF) and may progress to a Clinical Lectureship (CL). Alternatively some trainees that begin with an ACF post then continue as an ST trainee on the clinical programme post-ST4.

Applications for entry into Academic Clinical Fellow posts are coordinated by the National Institute for Health Research Trainees Coordinating Centre (NIHRTCC). [17]

There are also numerous opportunities for trainees to undertake research outside of the ACF/CL route, as part of planned time out of their training programme. Find out more about academic medicine. [18]

The Clinical Research Network [19] (CRN) actively encourages all doctors to take part in clinical research.

### **Other opportunities**

Paediatric cardiologists often undertake research, which includes collaborating with colleagues in the UK and overseas, writing papers and presenting work at conferences. Research opportunities within this specialty are good.

There may also be opportunities to work in the private sector and overseas.

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Job market and vacancies

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This section provides useful information about the availability of jobs, finding vacancies and where to find out more.

### **Job market information**

NHS Digital regularly publish workforce statistics which show the number of full time equivalent consultants and doctors in training for each specialty: NHS Digital workforce statistics [20].

Competition ratios for medical specialty training places are published on Health Education England's specialty training webpage [21].

**On this section we have information for England only.** For information regarding Scotland, Wales and Northern Ireland please click on the links below.

NHS Scotland medical and dental workforce data [22]

NHS Wales medical and dental workforce data [23]

Department of Health, Social Services and Public Safety workforce information for Northern Ireland [24]

### **Where to look for vacancies**

Specialist paediatric cardiology training is open to those who may want to train flexibly on a less than full-time basis (LTFT) [25]. You can request and apply for this after you have been offered the job. Restrictions apply.

Registration and applications for specialist paediatric cardiology training is online via Oriel [26].

Northern Ireland has its own recruitment process. For further details please visit the Northern Ireland Medical and Dental Training Agency [27] website.

- [Further information](#) Expand / collapse

### **Organisations**

British Cardiovascular Society [28]

British Medical Association [29]

General Medical Council [30]

Joint Royal College of Physicians Training Board [31]

Royal College of Paediatrics and Child Health [32]

Royal College of Physicians [33]

## **Other roles that may interest you**

- Cardiology [34]
- General practice (GP) [35]
- Paediatrics [36]
- Paediatric surgery [37]

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**Source URL:** <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/paediatrics/paediatric-cardiology>

### Links

- [1] <https://www.healthcareers.nhs.uk/glossary#Cardiovascular>
- [2] [https://www.healthcareers.nhs.uk/glossary#Heart\\_murmurs](https://www.healthcareers.nhs.uk/glossary#Heart_murmurs)
- [3] <https://www.healthcareers.nhs.uk/glossary#Neonatal>
- [4] [https://www.healthcareers.nhs.uk/glossary#Intensive\\_care](https://www.healthcareers.nhs.uk/glossary#Intensive_care)
- [5] <https://www.healthcareers.nhs.uk/glossary#MRI>
- [6] <https://www.healthcareers.nhs.uk/glossary#Ultrasound>
- [7] <https://www.healthcareers.nhs.uk/explore-roles/paediatrics/paediatric-cardiology/working-life>
- [8] <https://www.healthcareers.nhs.uk/explore-roles/paediatrics/paediatric-cardiology/entry-requirements-skills-and-interests>
- [9] <https://www.healthcareers.nhs.uk/explore-roles/paediatrics/paediatric-cardiology/training-and-development>
- [10] <https://www.healthcareers.nhs.uk/about-us/careers-medicine/pay-doctors>
- [11] <http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales>
- [12] <http://www.nhsemployers.org/your-workforce/pay-and-reward>
- [13] [https://www.healthcareers.nhs.uk/glossary#Certificate\\_of\\_completion\\_of\\_training](https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training)
- [14] <https://www.healthcareers.nhs.uk/glossary#CCT>
- [15] [https://www.healthcareers.nhs.uk/glossary#Foundation\\_training](https://www.healthcareers.nhs.uk/glossary#Foundation_training)
- [16] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/information-doctors/sas-doctors>
- [17] <https://www.nihr.ac.uk/about-us/how-we-are-managed/managing-centres/about-the-trainees-coordinating-centre.htm>
- [18] <https://www.healthcareers.nhs.uk/i-am/working-health/clinical-academic-careers/clinical-academic-medicine/academic-clinical>
- [19] <http://www.crn.nihr.ac.uk/>
- [20] <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics>
- [21] <https://specialtytraining.hee.nhs.uk/Competition-Ratios>
- [22] <http://www.isdscotland.org/Health-Topics/Workforce/Medical-and-Dental/>
- [23] <https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Staff/Medical-and-Dental-Staff>
- [24] <https://www.health-ni.gov.uk/articles/staff-numbers>
- [25] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/information-doctors/less-full-time-training-doctors>
- [26] <https://www.oriel.nhs.uk/Web/>
- [27] <http://www.nimda.gov.uk/>
- [28] <http://www.bcs.com>
- [29] <http://www.bma.org.uk>
- [30] <http://www.gmc-uk.org/>
- [31] <http://www.jrcptb.org.uk>
- [32] <http://www.rcpch.ac.uk>
- [33] <http://www.rcplondon.ac.uk>
- [34] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/cardiology>
- [35] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/general-practice-gp>
- [36] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/paediatrics/paediatrics>
- [37] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/surgery/paediatric-surgery>