Cardiothoracic surgeon

Cardiothoracic surgeons specialise in operating on the heart, lungs and other thoracic (chest) organs.

They also diagnose and treat diseases of these organs.

Life as a cardiothoracic surgeon

You’ll see the immediate and life-changing results of your work, but your role will be hugely demanding. Diseases that occur in a person's chest are common killers and you’ll be managing life and death scenarios every day.

Cardiothoracic surgery is a relatively young speciality that has experienced rapid growth through the introduction of new technologies.

Before surgery you’ll meet with patients and their families to discuss and explain procedures
and offer reassurance. Being crystal clear, empathetic and warm is vital to the success of your role.

The main areas of cardiothoracic surgery are:

- cardiac surgery
- thoracic surgery
- congenital cardiac surgery
- heart and lung transplant surgery

Monitoring patients in intensive care\(^1\) after surgery is a vital part of your work. Although cardiothoracic surgery is very safe, complications can occur and you’ll need to be prepared to deal with a host of conditions including arrhythmias (heart-beat irregularity), post-operative bleeding, stroke\(^2\), pleural effusion (fluid around the lungs), wound infection or thrombosis\(^3\).

As well as performing surgery, you'll be involved in the treatment and management of many different conditions within your speciality. You’ll need to attend outpatient clinics, multidisciplinary team meetings and ward rounds.

**How much can I earn?**

You'll first earn a salary when you start your foundation training\(^4\) after medical school. The basic salary ranges from £32,398 to £37,303. Once you start your specialty training in the NHS, you can expect to earn a salary of at least £43,923, which can increase to between £93,666 and £126,281 as a consultant.

**How about the benefits?**

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

**Must-have skills**

- excellent communication skills to manage a wide range of relationships with colleagues, and patients and their families
- emotional resilience, a calm temperament and the ability to work well under pressure
- teamwork and the capacity to lead multidisciplinary teams
- problem-solving and diagnostic skills
- outstanding organisational ability and effective decision-making skills
- first-class time and resource management for the benefit of patients
- a high degree of manual dexterity
- superb hand-eye co-ordination, excellent vision, and visuospatial awareness
- physical stamina to cope with the demands of surgery
Entry requirements

Your first step is medical school. Typically, you’ll need excellent GCSEs and three A or A* passes at A level including chemistry for a five-year undergraduate degree in medicine. Many medical schools also ask for biology and others may require maths or physics.

If you already have a degree, you could study for a four-year postgraduate degree in medicine.

You’ll need to pass an interview and admissions test. You’ll be asked to show how you demonstrate the NHS values such as compassion and respect.

Some medical schools look to recruit a mix of students from different backgrounds and geographical areas, so your educational and economic background and family circumstances could be considered as part of your application.

"I had some great mentors who gave me the opportunity to operate on patients with supervision, and to look after very sick patients on the intensive care [1] unit after cardiac surgery."

Read Omar's story [5].

What are my chances of starting a career as a cardiothoracic surgeon?

There are currently approximately 400 cardiothoracic surgeons working in the NHS in England. In 2020, there were between 5.86 and 9.92 applications for every specialty training place.

How to become a cardiothoracic surgeon

After medical school, you’ll join the paid two-year foundation programme [6] where you’ll work in six placements in different settings.

After your foundation programme, you can apply for paid specialty training [7] to become a cardiothoracic surgeon, which will take a minimum of six or seven years.

You may be able to train part time, for example for health reasons or if you have family or caring responsibilities.

Where a career as a cardiothoracic surgeon can take you
Working as a cardiothoracic surgeon, you’ll have the opportunity to specialise in cardiac, thoracic or congenital surgery.

As a cardiac surgeon, you’ll perform various kinds of surgery including:

- coronary artery bypass surgery – restoring blood flow to the heart by bypassing the narrowed coronary arteries
- heart valve surgery – repairing and replacing narrowed or leaking heart valves
- aortic surgery – replacing an enlarged or damaged blood vessel leaving the heart

If you choose to specialise as a thoracic surgeon, you’ll perform a wide range of surgery including:

- surgery for lung cancer, tumours and cysts
- surgery on collapsed or infected lungs
- keyhole thoracic surgery (video assisted thoracoscopic surgery (VATS))
- chest-wall deformities (pectus surgery)

If you choose congenital cardiac surgery, you’ll treat babies and children with heart diseases that have been present from birth. These conditions include:

- septal defects (a hole between two of the heart’s chambers)
- aortic and pulmonary valve stenosis (where the valve is narrower than normal)
- transposition of the arteries

You could specialise or conduct research, teach medical students or postgraduate students in training and get involved in research at universities, the NHS or private sector.

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**Live vacancies**

**Find a vacancy**

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- **Locum Consultant Cardiothoracic surgeon**

  Wolverhampton, WV100QP

  Salary: £93666.00 to £126281.00
Cardiothoracic Registrar ST3+

LEICESTER, LE3 9QP

Salary: £55329.00 to £63152.00
Type: Fixed-Term
Employer: University Hospitals of Leicester NHS Trust
Apply now on NHS Jobs for Cardiothoracic Registrar ST3+ job (opens in a new window) [9]

Cardiothoracic Outpatients Staff Nurse

Middlesbrough, TS4 3BW

Salary: £28407.00 to £34581.00
Type: Permanent
Employer: South Tees Hospitals NHS Foundation Trust
Apply now on NHS Jobs for Cardiothoracic Outpatients Staff Nurse job (opens in a new window) [10]

Cardiothoracic Senior Staff Nurse

City of London, EC1A 7BS

Salary: £35750.00 to £48000.00
Type: Permanent
Employer: Nuffield Health
Apply now on NHS Jobs for Cardiothoracic Senior Staff Nurse job (opens in a new window) [11]

Vasectomy Surgeon
United Kingdom - London and South East region (UK centres), W1T 5BE

Salary: £800.00
Type: Bank
Employer: MSI Reproductive Choices
Apply now on NHS Jobs for Vasectomy Surgeon job (opens in a new window) [12]

Breast Surgeon

East Sussex, BN21 3QJ
London, SE1 8SW
West Midlands, TF3 4LZ
Worthing, BN11 1UR

Salary: £1750.00
Type: Locum
Employer: 18 Week Support Limited
Apply now on NHS Jobs for Breast Surgeon job (opens in a new window) [13]

Breast Surgeon

East Sussex, BN21 3QJ

Salary: £1750.00
Type: Locum
Employer: 18 Week Support Limited
Apply now on NHS Jobs for Breast Surgeon job (opens in a new window) [13]

Oral Surgeon

Southampton, SO14 0YG

Salary: Negotiable
Type: Permanent
Employer: Practice Plus Group
Apply now on NHS Jobs for Oral Surgeon job (opens in a new window) [15]
**Vasectomy Surgeon**

Kingskerswell, TQ12 5DJ

Salary: £90.00
Type: Permanent
Employer: Independent Health Group

Apply now on NHS Jobs for Vasectomy Surgeon job (opens in a new window)

**Vasectomy Surgeon**

United Kingdom - North region (UK centres), M14 6XG

Salary: £800.00
Type: Bank
Employer: MSI Reproductive Choices

Apply now on NHS Jobs for Vasectomy Surgeon job (opens in a new window)

**Oral Surgeon**

Sandbach, CW11 1EQ
St Helens, WA10 1UH

Salary: £74126.00 to £86701.00
Type: Permanent
Employer: Bridgewater Community Healthcare NHS Foundation Trust

Apply now on NHS Jobs for Oral Surgeon job (opens in a new window)

**Plastic Surgeon**

Enfield, London, EN3 4GS

Salary: Negotiable
Type: Permanent
Employer: Omnes Healthcare Limited

Apply now on NHS Jobs for Plastic Surgeon job (opens in a new window)
Specialised Rotational Cardiothoracic/ ICU Physiotherapist

Morriston, SA6 6NL

Salary: £35922.00 to £43257.00
Type: Permanent
Employer: Swansea Bay University Health Board
Apply now on NHS Jobs for Specialised Rotational Cardiothoracic/ ICU Physiotherapist job (opens in a new window) [20]

Senior Clinical Fellow Cardiothoracic Anaesthetics

Wolverhampton, WV10 0QP

Salary: £55329.00
Type: Fixed-Term
Employer: The Royal Wolverhampton NHS Trust
Apply now on NHS Jobs for Senior Clinical Fellow Cardiothoracic Anaesthetics job (opens in a new window) [21]

Cardiothoracic (HVTI) Surgical Care Practitioner

London, SW1X 7HY

Salary: Negotiable
Type: Permanent
Employer: Cleveland Clinic London
Apply now on NHS Jobs for Cardiothoracic (HVTI) Surgical Care Practitioner job (opens in a new window) [22]

Consultant in Radiologist (Cardiothoracic Imaging)

Cambridge, CB2 0QQ

Salary: £93666.00 to £126281.00
Type: Permanent
Employer:
Cambridge University Hospital NHS Foundation Trust
Apply now on NHS Jobs for Consultant in Radiologist (Cardiothoracic Imaging) job (opens in a new window) [23]

**Rehabilitation Assistant- Cardiology and Cardiothoracic Surgery**

Manchester, M23 9LT

Salary: £22816.00 to £24336.00
Type: Permanent
Employer: Manchester University NHS Foundation Trust
Apply now on NHS Jobs for Rehabilitation Assistant- Cardiology and Cardiothoracic Surgery job (opens in a new window) [24]

**Senior Staff Nurse Cardiothoracic Critical Care**

Stoke on Trent, ST4 6QG

Salary: £35392.00 to £42618.00
Type: Permanent
Employer: University Hospital of North Midlands NHS Trust
Apply now on NHS Jobs for Senior Staff Nurse Cardiothoracic Critical Care job (opens in a new window) [25]

**Consultant Orthopaedic Surgeon**

Plymouth, PL6 5XP

Salary: Negotiable
Type: Permanent
Employer: Practice Plus Group
Apply now on NHS Jobs for Consultant Orthopaedic Surgeon job (opens in a new window) [26]

**Consultant Orthopaedic Surgeon**

Bristol, BS16 7FH

Salary: Negotiable
Consultant Vascular Surgeon

Leicester, LE3 9QP

Salary:
£93666.00 to £126281.00

Type:
Permanent

Employer:
University Hospitals of Leicester NHS Trust

Apply now on NHS Jobs for Consultant Vascular Surgeon job (opens in a new window) [28]

Consultant Urological Surgeon

Kettering, NN16 8UZ

Salary:
£93666.00 to £126281.00

Type:
Permanent

Employer:
Kettering General Hospital NHS Foundation Trust

Apply now on NHS Jobs for Consultant Urological Surgeon job (opens in a new window) [29]

Consultant Plastic Surgeon

Coventry, CV2 2DX

Salary:
£93666.00 to £126281.00

Type:
Permanent

Employer:
University Hospitals Coventry and Warwickshire NHS Trust

Apply now on NHS Jobs for Consultant Plastic Surgeon job (opens in a new window) [30]

Hand Surgeon Clinician
Leicester, LE67 5HX
Salary: Negotiable
Type: Bank
Employer: CHEC
Apply now on NHS Jobs for Hand Surgeon Clinician job (opens in a new window) [31]

- **Consultant Colorectal Surgeon**
  Stockton on Tees, TS19 8PE
  Salary: £93666.00 to £126281.00
  Type: Permanent
  Employer: North Tees & Hartlepool NHS Foundation Trust
  Apply now on NHS Jobs for Consultant Colorectal Surgeon job (opens in a new window) [32]

- **CONSULTANT IN CARDIOTHORACIC ANAESTHESIA AND INTENSIVE CARE**
  Blackpool, FY3 8NR
  Salary: Negotiable
  Type: Permanent
  Employer: Blackpool Teaching Hospitals NHS Foundation Trust
  Apply now on NHS Jobs for CONSULTANT IN CARDIOTHORACIC ANAESTHESIA AND INTENSIVE CARE job (opens in a new window) [33]

- **Physiotherapy Technical Instructor for Cardiothoracic surgical team**
  Blackpool, FY3 8NR
  Salary: £22816.00 to £24336.00
  Type: Permanent
  Employer:
Blackpool Teaching Hospitals NHS Foundation Trust
Apply now on NHS Jobs for Physiotherapy Technical Instructor for Cardiothoracic surgical team job (opens in a new window) [34]

Trust Fellow in Cardiothoracic Surgery (ST3+ Equiv.)

London, WC1N 3JH

Salary:
£38746.00 to £53132.00
Type:
Fixed-Term
Employer:
Great Ormond Street Hospital for Children NHS Foundation Trust
Apply now on NHS Jobs for Trust Fellow in Cardiothoracic Surgery (ST3+ Equiv.) job (opens in a new window) [35]

Locum Oral & Maxillofacial Surgeon

Middlesbrough, TS4 3BW

Salary:
£93666.00 to £126281.00
Type:
Fixed-Term
Employer:
South Tees Hospitals NHS Foundation Trust
Apply now on NHS Jobs for Locum Oral & Maxillofacial Surgeon job (opens in a new window) [36]

Locum Consultant ENT Surgeon

Newport, NP20 2UB

Salary:
£105401.00
Type:
Locum
Employer:
Aneurin Bevan University Health Board
Apply now on NHS Jobs for Locum Consultant ENT Surgeon job (opens in a new window) [37]

Consultant Oncoplastic Breast Surgeon

Kingston upon Thames, KT2 7QB

Salary:
£93666.00 to £126281.00
Consultant Oncoplastic Breast Surgeon

Leicester, LE1 5WW

Salary: £93,666.00 to £126,281.00
Type: Fixed-Term
Employer: University Hospitals of Leicester NHS Trust
Apply now on NHS Jobs for Consultant Orthopaedic Hand Surgeon job (opens in a new window) [39]

Locum Consultant Thoracic Surgeon

London, W1G 8PH

Salary: £93,666.00 to £126,281.00
Type: Fixed-Term
Employer: University College London Hospitals NHS Foundation Trust
Apply now on NHS Jobs for Locum Consultant Thoracic Surgeon job (opens in a new window) [40]

Plastic Surgeon- Skin Cancer

Bromsgrove, B61 0AZ

Salary: Negotiable
Type: Permanent
Employer: HealthHarmonie
Apply now on NHS Jobs for Plastic Surgeon- Skin Cancer job (opens in a new window) [41]

Consultant Oncoplastic Breast Surgeon
Liverpool, L7 8XP

Salary:
£93666.00 to £126281.00
Type:
Permanent
Employer:
Liverpool University Hospitals NHS Foundation Trust
Apply now on NHS Jobs for Consultant Oncoplastic Breast Surgeon job (opens in a new window) [42]

Fellowship-trained Spinal Surgeon

Sheffield, S11 8UX

Salary:
Negotiable
Type:
Permanent
Employer:
One Health Group
Apply now on NHS Jobs for Fellowship-trained Spinal Surgeon job (opens in a new window) [43]

Consultant Oral & Maxillofacial Surgeon

Northampton, NN1 5DB

Salary:
£93666.00 to £126281.00
Type:
Permanent
Employer:
Northampton General Hospital
Apply now on NHS Jobs for Consultant Oral & Maxillofacial Surgeon job (opens in a new window) [44]

Senior Scrub Theatre Nurses and ODP- Cardiothoracic theatres

London, SW17 0QT

Salary:
£42471.00 to £50364.00
Type:
Permanent
Employer:
St George's Healthcare NHS Foundation Trust
Apply now on NHS Jobs for Senior Scrub Theatre Nurses and ODP- Cardiothoracic theatres job (opens in a new window) [45]
Consultant in General Radiology (Interest in Cardiothoracic Imaging)
Salisbury, SP2 8BJ
Salary: £93666.00 to £126281.00
Type: Permanent
Employer: Salisbury NHS Foundation Trust
Apply now on NHS Jobs for Consultant in General Radiology (Interest in Cardiothoracic Imaging) job (opens in a new window)

Locum Consultant in Cardiothoracic Anaesthesia and Intensive Care
Cambridge Bio Medical Campus, CB2 0AY
Salary: £93666.00 to £126281.00
Type: Fixed-Term
Employer: Royal Papworth Hospital NHS Foundation Trust
Apply now on NHS Jobs for Locum Consultant in Cardiothoracic Anaesthesia and Intensive Care job (opens in a new window)

Fellowship-trained Consultant General Surgeon
Sheffield, S11 8UX
Salary: Negotiable
Type: Permanent
Employer: One Health Group
Apply now on NHS Jobs for Fellowship-trained Consultant General Surgeon job (opens in a new window)

Consultant Urological Surgeon – Pelvic Surgery
Bristol, BS10 5NB
Salary: £93666.00 to £126281.00
Type:
**Consultant Oral and Maxillofacial Surgeon**

London, SE5 9RS

Salary: £93666.00 to £126281.00

Type: Fixed-Term

Employer: King’s College Hospital NHS Foundation Trust

Apply now on NHS Jobs for Consultant Oral and Maxillofacial Surgeon job (opens in a new window)

**Locum Consultant in Breast Surgeon**

Wythenshawe, Manchester, M23 9LT

Salary: £93666.00 to £126281.00

Type: Fixed-Term

Employer: Manchester University NHS Foundation Trust

Apply now on NHS Jobs for Locum Consultant in Breast Surgeon job (opens in a new window)

**Consultant Oral and Maxillofacial Surgeon**

East Grinstead, RH19 3DZ

Salary: £93666.00 to £126281.00

Type: Permanent

Employer: Queen Victoria Hospital NHS Foundation Trust

Apply now on NHS Jobs for Consultant Oral and Maxillofacial Surgeon job (opens in a new window)

**Locum Consultant Orthopaedic and Oncology Surgeon**

Oswestry, SY10 7AG
Salary: £88364.00 to £119133.00
Type: Locum
Employer: Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust
Apply now on NHS Jobs for Locum Consultant Orthopaedic and Oncology Surgeon job (opens in a new window) [53]

**Consultant Orthopaedic Surgeon (Knee Revision Surgery)**

Oswestry, SY10 7AG

Salary: £93666.00 to £126281.00
Type: Permanent
Employer: Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust
Apply now on NHS Jobs for Consultant Orthopaedic Surgeon (Knee Revision Surgery) job (opens in a new window) [54]

**Locum Consultant Plastic Surgeon (2 posts)**

Birmingham, B15 2TH

Salary: £93666.00 to £126281.00
Type: Fixed-Term
Employer: University Hospitals Birmingham NHS Foundation Trust
Apply now on NHS Jobs for Locum Consultant Plastic Surgeon (2 posts) job (opens in a new window) [55]

**Consultant Hernia Surgeon Leicester - Practising Privileges Contract**

Leicester, LE7 2EQ

Salary: £900.00
Type: Bank
Employer: Independent Health Group
Apply now on NHS Jobs for Consultant Hernia Surgeon Leicester - Practising Privileges Contract job (opens in a new window) [56]
**Consultant ENT Surgeon (Head and Neck Surgery)**

Norwich, NR4 7UY

Salary: £93666.00 to £126281.00  
Type: Permanent  
Employer: Norfolk and Norwich University Hospital  
Apply now on NHS Jobs for Consultant ENT Surgeon (Head and Neck Surgery) job (opens in a new window) [57]

**Consultant General and Upper GI Surgeon (Benign)**

Nuneaton, CV10 7DJ

Salary: £93666.00 to £126281.00  
Type: Permanent  
Employer: George Eliot Hospital NHS Trust  
Apply now on NHS Jobs for Consultant General and Upper GI Surgeon (Benign) job (opens in a new window) [58]

**Consultant Oral & Maxillofacial Surgeon with Head & Neck Interest**

Coventry, CV2 2DX

Salary: £93666.00 to £126281.00  
Type: Permanent  
Employer: University Hospitals Coventry and Warwickshire NHS Trust  
Apply now on NHS Jobs for Consultant Oral & Maxillofacial Surgeon with Head & Neck Interest job (opens in a new window) [59]

**Consultant Oral & Maxillofacial Surgeon plus £5000 joining reward**

Coventry, CV2 2DX

Salary: £93666.00 to £126281.00  
Type: Permanent
Consultant Trauma & Orthopaedic Surgeon - Revision Hip & Knee Surgery

Carlisle, CA2 7HY

Salary: £93666.00 to £126281.00
Type: Permanent

Consultant Trauma and Orthopaedic, Pelvic and Acetabular Surgeon

Nottingham, NG72UH

Salary: £93666.00 to £126281.00
Type: Permanent

Consultant Oral & Maxillofacial Surgeon (interest head & neck cancer)

Newcastle upon Tyne, NE1 4LP

Salary: £93666.00 to £126281.00
Type: Permanent

Consultant General Surgeon (sp. interest in Oesophagogastric
Surgery

Bradford, BD9 6RJ

Salary: £93666.00 to £126281.00
Type: Permanent
Employer: Bradford Teaching Hospitals NHS Foundation Trust
Apply now on NHS Jobs for Consultant General Surgeon (sp. interest in Oesophagogastric Surgery) job (opens in a new window) [64]

Consultant in General and Benign Biliary/Upper GI Surgeon

King's Lynn, PE30 4ET

Salary: £93666.00 to £126281.00
Type: Permanent
Employer: The Queen Elizabeth Hospital King's Lynn NHSFT
Apply now on NHS Jobs for Consultant in General and Benign Biliary/Upper GI Surgeon job (opens in a new window) [65]

Speciality Doctor / Surgeon in Plastic Surgery and Skin Cancer

Royal Wootton Bassett, SN4 8SY
Melksham, SN12 6UN

Salary: £80000.00
Type: Fixed-Term
Employer: Cotswold Surgical Partners
Apply now on NHS Jobs for Speciality Doctor / Surgeon in Plastic Surgery and Skin Cancer job (opens in a new window) [66]

Consultant ENT Surgeon Specialising in Head and Neck Surgery

Peterborough, PE3 9GZ

Salary: Negotiable
Type: Permanent
Employer:
North West Anglia NHS Foundation Trust
Apply now on NHS Jobs for Consultant ENT Surgeon Specialising in Head and Neck Surgery job (opens in a new window) [67]

Further information

These organisations have further information about being a cardiothoracic surgeon, particularly as your career progresses. Take a look.

Royal College of Surgeons [68]
Royal College of Surgeons of Edinburgh [69]
Royal College of Physicians and Surgeons of Glasgow [70]
Society for Cardiothoracic Surgery in Great Britain and Ireland [71]
And hear from people working as cardiothoracic surgeons.
A career in cardiothoracic surgery (BMJ) [72]
A day in the life of a thoracic surgeon (CTSNET) [73]
A day in a heart surgeon's life (CTSNET) [74]

Other roles that may interest you

- Cardiologist [75]
- Emergency medicine [76]
- Respiratory medicine [77]
- Clinical bioinformatics health informatics [78]

Source URL: https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/surgery/cardiothoracic-surgery

Links
[1] https://www.healthcareers.nhs.uk/glossary#Intensive_care
[3] https://www.healthcareers.nhs.uk/glossary#Thrombosis