

History of Neurosurgery

Addenbrooke's Hospital, Cambridge

From wartime neurotrauma to precision neurosurgery



Origins and Foundation

- **Walpole S. Lewin** provided the first neurosurgical service in Cambridge.
- Lewin established the regional Neurosurgical Unit for East Anglia at Addenbrooke's in 1960.
- The first neurosurgical operation at the new Hills Road hospital was performed by Lewin on 14 October 1961.
- First stage of new hospital formally opened in 1962 (**Queen Elizabeth II**)

Walpole S. Lewin CBE (1915–1980)



- Established the regional unit in 1960
- Trained in Oxford under Sir Hugh Cairns during Second World War
- Early interest in head injury and neurotrauma
- Established the Lewin Memorial Fund and Lecture

Wartime Training in Oxford



Cecil Calvert and Walpole Lewin operating at St Hughes College Oxford 1941. Source: Society of British Neurological Surgeons historical archive.

Early Pictures



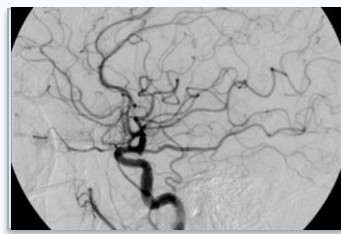
Left: Queen Elizabeth II opening the new Addenbrooke's Hospital, 1962. Right: The 'A block' of 100 beds covering Neurology, Neurosurgery, and Orthopaedics, 1964.

Timeline of Key Milestones

- 1955** Lewin begins providing a neurosurgical service to Cambridge
- 1960** Regional Neurosurgical Unit for East Anglia established
- 1970s** Service developed by John Gleave, David Hardy and Alec Holmes
- 1991** John Pickard appointed first Professor of Neurosurgery
- 1990s** Peter Kikpatrick and Robert Macfarlane appointed consultants
- 1992** University Neurosurgery Unit established/refurbished in A Block
- 2010s** Major international neurotrauma trials and subspecialisation
- 2020s** Continued growth in trials, global health and precision neurosurgery

Development and Subspecialisation

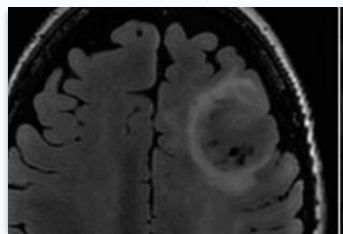
Cambridge evolved in the 1990s into a comprehensive tertiary and quaternary service with specialist practice in neuro-oncology, skull base and pituitary surgery, neurovascular surgery, complex spine, functional and epilepsy surgery, paediatric neurosurgery, CSF disorders and neurotrauma.



Vascular



Skull base



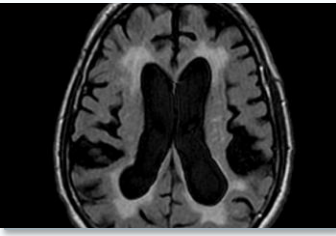
Oncology



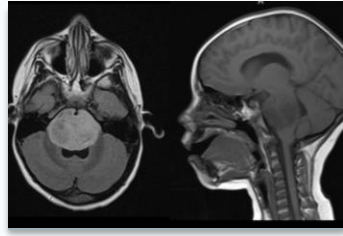
Complex spine



Functional



CSF



Paediatrics



Trauma

Academic Neurosurgery

- John Pickard became the first Professor of Neurosurgery at Cambridge in 1991.
- Since developed internationally recognised research in cerebral physiology, CSF disorders, neuroimaging, neuro-oncology and traumatic brain injury.
- The John Pickard Neurosurgical Laboratories link clinical neurosurgery with the University of Cambridge.



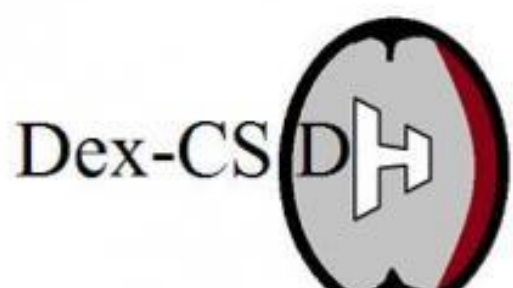
Academic Neurosurgery part of the biomedical campus.

International Links and Training

- Cambridge Lectures in Neurosurgical Anatomy established in 2005.
- NIHR Global Health Research Group on Acquired Brain and Spine Injury links Cambridge with centres across Africa, Asia and South America.
- Skull base fellowship for Australian Trainees.
- Cambridge has contributed to global neurotrauma training and capacity building.



Research and Major Trials



Additional Interest in brain tumour imaging (Wolfson brain imaging centre), CSF disorders and multimodality monitoring

Unit statistics

Catchment area	2.5–3 million Major trauma network: 7 million
Operations / year	4,000–5,000
Neurocritical care (NCCU)	27 beds NCCU; mixed neurosciences/trauma
Adult beds	90
Consultants	23
Trainees/Fellows	14/7

Department specific features



Modern neurosurgical theatres (**refurbished 2025**)



Annual Cambridge Lectures in Neurosurgical Anatomy- Established 2005



Cadaveric lab offering full dissection

Current Neurosurgical Consultants

Consultant	Subspecialty/Interest
Prof Peter Hutchinson (A)	Neurotrauma
Prof Stephen Price (A)	Neuro-oncology
Prof Adel Helmy	Neurotrauma, skull base, vascular
Mr Angelos Kolias (A)	Neurotrauma
Mr Ivan Timofeev	Neurotrauma
Mr Rodney Laing	Spine
Mr Robert Morris	Functional, epilepsy, Clinical lead
Mr Rikin Trivedi	Vascular, spine
Mr Matthew Garnett	CSF
Mr Richard Mannion	Skull base
Mr Mathew Guilfoyle	Vascular, Skull base

Consultant	Subspecialty/Interest
Ms Claudia Craven	Paediatrics
Mr Ibrahim Jalloh	Paediatrics
Mr Alexis Joannides (A)	CSF, Neurotrauma
Mr John Crawford	Spine
Mr Jibin Francis	Spine
Mr Douglas Hay	Spine
Mr Thomas Santarius	Oncology
Mr Daniel Brown	Vascular, Oncology
Mr Richard Mair (A)	Oncology
Mr Harry Bulstrode (A)	Functional
Mr Mark Kotter (A)	Spine

Specialty registrar (SpR): 14

Clinical Fellows: 7

Addenbrooke's Hospital Today



Based at the A Block, part of the main Addenbrooke's hospital site.