

Supplementary Information

Public Interest in Neurosurgical Conditions Over Two Decades: A Google Trends Analysis (2004–2025)

Supplementary Table S1. Google Trends query definitions

Each topic was queried as a Google Trends topic entity where one existed; two topics without a dedicated entity were queried as literal search terms. A fixed anchor entity was used for cross-topic scaling and a non-medical control series for the interrupted time-series specificity test.

Topic	Query type	Google Trends identifier / term
Glioblastoma	Topic entity	/m/03_5ld
Concussion	Topic entity	/m/023ndx
Hydrocephalus	Topic entity	/m/01cw5r
Spinal stenosis	Topic entity	/m/030cb2
Brain aneurysm	Topic entity (Intracranial aneurysm)	/m/01g45j
Deep brain stimulation	Topic entity	/m/020cpn
Epilepsy surgery	Topic entity	/m/025wcjv
Robotic surgery	Topic entity	/m/07sxl7
Mechanical thrombectomy	Literal search term	“thrombectomy”
AI surgery (excluded)	Literal search term	“AI surgery”
Brain tumor (cross-topic anchor)	Topic entity	/m/09969
Weather (control series)	Topic entity	/m/0866r

Supplementary Table S2. PubMed search queries

Annual neurosurgical publication counts were retrieved from PubMed via the Entrez E-utilities for each topic over the publication years 2004–2024, matching the complete-year window used in the correlation analysis. Each query combined Medical Subject Headings (MeSH) with title/abstract (tiab) synonyms.

Topic	PubMed query
Glioblastoma	("Glioblastoma"[Mesh] OR glioblastoma*[tiab] OR "glioblastoma multiforme"[tiab])
Concussion	("Brain Concussion"[Mesh] OR concussion*[tiab] OR "mild traumatic brain injury"[tiab] OR "mTBI"[tiab])
Hydrocephalus	("Hydrocephalus"[Mesh] OR hydrocephalus[tiab] OR hydrocephalic[tiab])
Spinal stenosis	("Spinal Stenosis"[Mesh] OR "spinal stenosis"[tiab] OR "lumbar spinal stenosis"[tiab] OR "spinal canal stenosis"[tiab])
Thrombectomy	("Thrombectomy"[Mesh] OR "mechanical thrombectomy"[tiab] OR "endovascular thrombectomy"[tiab] OR "stroke thrombectomy"[tiab])
Brain aneurysm	("Intracranial Aneurysm"[Mesh] OR "intracranial aneurysm"[tiab] OR "cerebral aneurysm"[tiab] OR "brain aneurysm"[tiab])
Deep brain stimulation	("Deep Brain Stimulation"[Mesh] OR "deep brain stimulation"[tiab])
Epilepsy surgery	("Epilepsy/surgery"[Mesh] OR "epilepsy surgery"[tiab] OR "surgery for epilepsy"[tiab] OR "surgical treatment of epilepsy"[tiab])
Robotic surgery	("Robotic Surgical Procedures"[Mesh] OR "robotic surgery"[tiab] OR "robot-assisted

	surgery"[tiab] OR "robotic-assisted surgery"[tiab])
AI surgery (excluded)	((("Artificial Intelligence"[Mesh] OR "artificial intelligence"[tiab] OR "machine learning"[tiab] OR "deep learning"[tiab]) AND (surgery[tiab] OR surgical[tiab]))

All Google Trends data were extracted on a single date (June 2026); the extraction and analysis code and derived data series are available from the corresponding author on reasonable request.