## **Resource Summary Report**

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# **FreeSurfer**

RRID:SCR\_001847 Type: Tool

## **Proper Citation**

FreeSurfer (RRID:SCR\_001847)

### **Resource Information**

URL: http://surfer.nmr.mgh.harvard.edu/

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**Description:** Open source software suite for processing and analyzing human brain MRI images. Used for reconstruction of brain cortical surface from structural MRI data, and overlay of functional MRI data onto reconstructed surface. Contains automatic structural imaging stream for processing cross sectional and longitudinal data. Provides anatomical analysis tools, including: representation of cortical surface between white and gray matter, representation of the pial surface, segmentation of white matter from rest of brain, skull stripping, B1 bias field correction, nonlinear registration of cortical surface of individual with stereotaxic atlas, labeling of regions of cortical surface, statistical analysis of group morphometry differences, and labeling of subcortical brain structures.Operating System: Linux, macOS.

#### Abbreviations: FreeSurfer

**Resource Type:** image analysis software, software application, data processing software, data visualization software, software resource

#### Defining Citation: PMID:22248573

**Keywords:** processing, analysis, human, brain, MRI, image, reconstruction, cortical, surface, fMRI, data

**Funding:** NCRR U24 RR021382; NINDS R01 NS052585; NCRR RR014075 Availability: Free, Available for download, Freely available

Resource Name: FreeSurfer

Resource ID: SCR\_001847

Alternate IDs: nif-0000-00304

Alternate URLs: https://sources.debian.org/src/freesurfer/, http://www.nitrc.org/projects/freesurfer, http://surfer.nmr.mgh.harvard.edu/fswiki/DownloadAndInstall

License: FreeSurfer License

Record Creation Time: 20220129T080209+0000

Record Last Update: 20250331T060126+0000

### **Ratings and Alerts**

No rating or validation information has been found for FreeSurfer.

No alerts have been found for FreeSurfer.

### Data and Source Information

Source: <u>SciCrunch Registry</u>

## **Usage and Citation Metrics**

We found 11222 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Heukamp NJ, et al. (2025) Beyond the chronic pain stage: default mode network perturbation depends on years lived with back pain. Pain, 166(1), 160.

Legdeur N, et al. (2025) The Temporal Relation of Physical Function with Cognition and the Influence of Brain Health in the Oldest-Old. Gerontology, 71(1), 13.

Nguyen-Duc J, et al. (2025) Mapping Activity and Functional Organisation of the Motor and Visual Pathways Using ADC-fMRI in the Human Brain. Human brain mapping, 46(2), e70110.

Isherwood S, et al. (2025) Multi-study fMRI outlooks on subcortical BOLD responses in the stop-signal paradigm. eLife, 12.

Zorzi G, et al. (2025) Clinical validity and reproducibility of a visual rating scale for cingulate island sign in a real-world memory clinic: An FDG-PET/MRI study. European journal of neurology, 32(1), e70015.

Picci G, et al. (2025) Anterior pituitary gland volume mediates associations between adrenarche and changes in transdiagnostic symptoms in youth. Developmental cognitive neuroscience, 71, 101507.

Steel A, et al. (2025) Topography of scene memory and perception activity in posterior cortex - a publicly available resource. bioRxiv : the preprint server for biology.

Yildirim MS, et al. (2025) Decreased Structural Connectivity Between Thalamic Nuclei and Hippocampus in Temporal Lobe Epilepsy-A Diffusion Tensor Imaging-Based Study. European journal of neurology, 32(1), e70040.

Chen JE, et al. (2025) Simultaneous EEG-PET-MRI identifies temporally coupled, spatially structured hemodynamic and metabolic dynamics across wakefulness and NREM sleep. bioRxiv : the preprint server for biology.

Ge W, et al. (2025) Dissociable ventral and dorsal sensorimotor functional circuits linking the hypomanic personality traits to aggression via behavioral inhibition system. International journal of clinical and health psychology : IJCHP, 25(1), 100537.

Solhtalab A, et al. (2025) Stress landscape of folding brain serves as a map for axonal pathfinding. Nature communications, 16(1), 1187.

Vidal JPC, et al. (2025) Factors behind poor cognitive outcome following a thalamic stroke. Journal of neurology, 272(1), 98.

Mitchell JL, et al. (2025) Small or absent Visual Word Form Area is a trait of dyslexia. bioRxiv : the preprint server for biology.

Poppe T, et al. (2025) Neonatal Nutrition and Brain Structure at 7 Years in Children Born Very Preterm. JAMA network open, 8(1), e2456080.

Giannoula A, et al. (2025) Identifying time patterns in Huntington's disease trajectories using dynamic time warping-based clustering on multi-modal data. Scientific reports, 15(1), 3081.

Lin C, et al. (2025) The brain structure underlying the nonlinear association between earlylife tobacco smoke exposure and the risk for cognitive decline and dementia in adulthood: a large prospective cohort study. BMC public health, 25(1), 216.

Jo S, et al. (2025) Advancements in Frank's sign Identification using deep learning on 3D brain MRI. Scientific reports, 15(1), 2383.

Niu Y, et al. (2025) Longitudinal investigation of neurobiological changes across pregnancy. Communications biology, 8(1), 82.

Won J, et al. (2025) Age and Sex-Related Differences in Neuroprotective Effects of Cardiovascular Endurance on Cortical Thickness and Brain Volume in Adults Across Age. Brain and behavior, 15(1), e70231.

Ruan J, et al. (2025) Connectional differences between humans and macaques in the MT+ complex. iScience, 28(1), 111617.