Resource Summary Report

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CCHMC Pediatric Brain Templates

RRID:SCR_003276
Type: Tool

Proper Citation

CCHMC Pediatric Brain Templates (RRID:SCR_003276)

Resource Information

URL: http://irc.cchmc.org/software/pedbrain.php

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Description: Brain imaging data collected from a large population of normal, healthy children that have been used to construct pediatric brain templates, which can be used within statistical parametric mapping for spatial normalization, tissue segmentation and visualization of imaging study results. The data has been processed and compiled in various ways to accommodate a wide range of possible research approaches. The templates are made available free of charge to all interested parties for research purposes only. When processing imaging data from children, it is important to take into account the fact that the pediatric brain differs significantly from the adult brain. Therefore, optimized processing requires appropriate reference data be used because adult reference data will introduce a systematic bias into the results. We have shown that, in the in the case of spatial normalization, the amount of non-linear deformation is dramatically less when a pediatric template is used (left, see also HBM 2002; 17:48-60). We could also show that tissue composition is substantially different between adults and children, and more so the younger the children are (right, see also MRM 2003; 50:749-757). We thus believe that the use of pediatric reference data might be more appropriate.

Abbreviations: Pediatric Brain Templates

Resource Type: atlas, reference atlas, data or information resource, image collection

Keywords: brain, child, human, normal, pediatric, spatial normalization, template, tissue segmentation, visualization, young human, neuroimaging

Related Condition: Normal, Healthy

Funding:

Availability: Free of charge to all interested parties for research purposes only. Registration / license agreement required before download.

Resource Name: CCHMC Pediatric Brain Templates

Resource ID: SCR_003276

Alternate IDs: nif-0000-01274

Record Creation Time: 20220129T080218+0000

Record Last Update: 20250412T054817+0000

Ratings and Alerts

No rating or validation information has been found for CCHMC Pediatric Brain Templates.

No alerts have been found for CCHMC Pediatric Brain Templates.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 3 mentions in open access literature.

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

Olivo G, et al. (2019) Functional connectivity underlying hedonic response to food in female adolescents with atypical AN: the role of somatosensory and salience networks. Translational psychiatry, 9(1), 276.

Rotzer S, et al. (2009) Dysfunctional neural network of spatial working memory contributes to developmental dyscalculia. Neuropsychologia, 47(13), 2859.

Altaye M, et al. (2008) Infant brain probability templates for MRI segmentation and normalization. NeuroImage, 43(4), 721.