

Review    *Neuroradiology*. 2024 Jul 2. doi: 10.1007/s00234-024-03398-9. Online ahead of print.

# Approaches to supratentorial brain tumours in children

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PMID: 38953989    DOI: [10.1007/s00234-024-03398-9](https://doi.org/10.1007/s00234-024-03398-9)

## Abstract

The differential diagnosis of supratentorial brain tumours in children can be challenging, especially considering the recent changes to the WHO classification of CNS tumours published in 2021. Many new tumour types have been proposed which frequently present in children and young adults and their imaging features are currently being described by the neuroradiology community. The purpose of this article is to provide guidance to residents and fellows new to the field of paediatric neuroradiology on how to evaluate an MRI of a patient with a newly diagnosed supratentorial tumour. Six different approaches are discussed including: 1. Tumour types, briefly discussing the main changes to the recent WHO classification of CNS tumours, 2. Patient age and its influence on incidence rates of specific tumour types, 3. Growth patterns, 4. Tumour location and how defining the correct location helps in narrowing down the differential diagnoses and 5. Imaging features of the tumour on DWI, SWI, FLAIR and post contrast sequences.

**Keywords:** Differential diagnosis; Magnetic resonance imaging; Neuroimaging; Paediatric brain tumour; Supratentorial tumours.

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