

# Study offers new insights into basal ganglia diseases

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Basal ganglia are deep grey matter structures in the brain involved in the control of posture and voluntary movements, cognition, behaviour, and motivational states. Several conditions are known to affect basal ganglia during childhood, but many questions remain.

In a study published in *Developmental Medicine & Child Neurology* that included 62 children with [basal ganglia](#) diseases who were followed for two years, investigators identified multiple genetic variations that pointed to the presence of mitochondrial diseases, Aicardi-Goutières syndrome (a rare genetic disorder that affects the brain, spinal cord, and [immune system](#)), and dystonia and/or epilepsy.

Radiological imaging tests also revealed several characteristics in patients that could help lead to an earlier diagnosis of basal ganglia diseases.

**More information:** Heidy Baide-Mairena et al, Genetic diagnosis of basal ganglia disease in childhood, *Developmental Medicine & Child Neurology* (2022). [DOI: 10.1111/dmcn.15125](https://doi.org/10.1111/dmcn.15125)

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