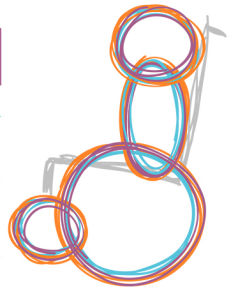


# What are some advances in the identification of disorders in cerebellar growth and development?

childhood  
disability  
LINK



## Glossary of terms

- Cerebellum: The cerebellum comprises approximately 10% of the brain's volume and contains at least half of the brain's neurons. It has traditionally been recognized as the brain unit for motor control that regulates muscle tone and coordination of movement. There are an increasing number of reports that support the idea that the cerebellum also contributes to non-motor functions such as cognition (thought processes) and affective state (emotion).

## Summary

This review summarized our current understanding of the development of two structures in the brain: the cerebellum and the brainstem. The impact of prematurity on cerebellar growth and development was also described. Advances in neuroimaging of the brain during fetal and postnatal life are now providing important insights into the nature of normal and abnormal development of the brainstem and cerebellum. These powerful new techniques for defining brain structure, together with major advances in genetics, are accelerating our understanding of the causes and outcomes related to these brain malformations. A better understanding of the mechanisms and consequences of disturbed cerebellar structural development will require rigorous examination of the long-term developmental significance of these structural anomalies for the child.

## What families and practitioners should know

Disturbances in cerebellar growth are increasingly identified in surviving infants as a result of advances in neuroimaging techniques and genetic findings. Studies that investigate developmental outcome over the long run are needed to determine the long-term consequences of these brain injuries, which can now be identified clinically thanks to technological advances.

## Reference

Limperopoulos, C & du Plessis, A.J. (2006), Disorders of cerebellar growth and development. *Curr Opin Pediatr*, 18, 621-7.