Is growth of the cerebellum affected by premature birth?



Summary

This study describes cerebellar growth in preterm infants from 28-40 weeks postconceptional age. The authors evaluated 169 premature infants and 20 healthy preterm infants using magnetic resonance imaging and calculated brain volumes for each infant. Although cerebellar growth is very active compared to other brain structures in the third trimester, the cerebellum is smaller at term corrected age in preterms when compared to healthy full-terms. Cerebellar growth is further stunted in preterm infants who have brain injuries compared to those who do not.

What families and practitioner should know

The Cerebellum seems to be less well developed at term in preterm infants, compared to healthy full term infants. Poor cerebellar growth may be associated with later developmental disabilities.

Reference

Limperopoulos, C., Soul, J.S., Gauvreau, K., Huppi, P.S., Warfield, S.K., Bassan, H., Robertson, R., Volpe, J.J., & du Plessis, A.J. (2005), Late gestation cerebellar growth is rapid and impeded by premature birth. Pediatrics, 115,688-695.