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# Microcephaly

National Institute of Neurological Disorders and Stroke (NINDS)

## Source

*National Institute of Neurological Disorders and Stroke (NINDS). [Microcephaly Information Page](#).*

Microcephaly is a medical condition in which the circumference of the head is smaller than normal because the brain has not developed properly or has stopped growing. Microcephaly can be present at birth or it may develop in the first few years of life. It is most often caused by genetic abnormalities that interfere with the growth of the cerebral cortex during the early months of fetal development. Babies may also be born with microcephaly if, during pregnancy, their mother abused drugs or alcohol; became infected with a cytomegalovirus, rubella (German measles), varicella (chicken pox) virus, or possibly Zika virus; was exposed to certain toxic chemicals; or had untreated phenylketonuria (PKU, a harmful buildup of the amino acid phenylalanine in the blood). Microcephaly is associated with Down's syndrome, chromosomal syndromes, and neurometabolic syndromes.

With viral-induced brain injury, such as with the Zika virus, there is often widespread tissue and cell death leading to brain shrinkage rather than simply impaired growth. The Zika virus is also associated with retinal lesions in about a third of cases, often leading to blindness.

Depending on the severity of the accompanying syndrome, children with microcephaly may have impaired cognitive development, delayed motor functions and speech, facial distortions, dwarfism or short stature, hyperactivity, seizures, difficulties with coordination and balance, and other brain or neurological abnormalities.