

# Polycythemia (neonathology)

**Neonatal polycythemia** is defined as central venous **hematocrit** > **0.65**. However, even with a hematocrit > 0.70, only a small proportion of newborns have **clinical signs** of hyperviscosity. The clinical picture includes lethargy, hypotonia, hyperbilirubinemia and hypoglycemia. Polycythemia can also be involved in the development of seizures, stroke, renal vein thrombosis, and necrotizing enterocolitis.

**Causes** of polycythemia of the newborn:

- fetal growth restriction (FGR, IUGR);
- maternal hypertension;
- maternal diabetes;
- chromosomal defects: trisomy 21, 18,13;
- twin-to-twin transfusion;
- delayed interruption of the umbilical cord;
- endocrine disorders: thyrotoxicosis, congenital adrenal hyperplasia (CAH).

**Treatment** is controversial and probably unnecessary in neonates with mild symptoms (eg, borderline glycemia, impaired peripheral blood flow). Treatment is indicated in neonates with a hematocrit > 0.65 and symptoms with a potentially serious prognosis (eg, refractory hypoglycemia, neurological symptoms). A partial exchange transfusion is performed with a crystalloid solution (e.g. physiological saline solution) with a target hematocrit of 0.55.<sup>[1]</sup>

## Links

### Related articles

- Anemia (pediatrics) • Trombocytopenia of newborn

### External links

### References

1. RENNIE, JM, et al. *Textbook of Neonatology*. 5. edition. Churchill Livingstone Elsevier, 2012. pp. 769. ISBN 978-0-7020-3479-4.