

Faculti Summary

<https://faculti.net/haemoglobin-concentration-and-sickle-cell-anemia-summary/>

This video discusses sickle cell anemia, the most common inherited disorder worldwide and rapidly increasing in the UK. It is characterized by abnormal hemoglobin in red blood cells, leading to sickle-shaped cells that poorly carry oxygen. This video condition can result in cognitive challenges, especially in processing speed and executive functions. Research is being conducted to improve hemoglobin levels and understand mechanisms that could enhance cognitive outcomes.

A study conducted from 2005 to 2014, with follow-ups in 2017 and 2019, investigated the relationship between changes in hemoglobin and cognitive abilities in black British children with severe sickle cell disease. The findings revealed a significant association between hemoglobin levels and processing speed, suggesting that oxygen supply to the brain impacts cognition. The study emphasized that hemoglobin can affect both organ damage and cognitive capabilities.

It calls for further longitudinal studies to affirm cognition as a crucial endpoint in clinical trials, recommending the incorporation of cognitive assessments to evaluate treatment effectiveness comprehensively.