

# Better prognosis for children born with severe acute asphyxia

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(PhysOrg.com) -- The prognosis for children born with severe acute asphyxia has improved in recent years owing to new clinical procedures and better diagnostics, according to a new doctoral thesis from Karolinska Institutet (Sweden). By measuring levels of lactic acid in the blood during childbirth and the brain activity of the newborn afterwards, doctors can make a much more reliable assessment of the risk of serious brain damage.

"Previously, we went by the EEG pattern when the baby was six hours old, which sometimes meant interrupting life-sustaining interventions," says Boubou Hallberg, paediatrician and researcher at the Department of Clinical Sciences, Intervention and Technology (CLINTEC), Karolinska Institutet. "Now we know that the values can be normalised for up to 48 hours with brain cooling treatment, greatly reducing the risk of serious damage."

Boubou Hallberg is a clinician at the neonatal intensive care unit at Karolinska University Hospital, Huddinge. The research he presents in his doctoral thesis forms much of the basis of the recent changes in the way babies born with acute hypoxia are treated, and one of Europe's most modern unit for neonatal intensive care is now being built in Huddinge. But his findings have also been of major significance in other countries.

Babies who are brain damaged on account of asphyxia often develop motor disabilities, such as [cerebral palsy](#) (CP). Boubou Hallberg shows in his thesis that surprisingly many, including those who have no motor

deficiencies, also develop cognitive problems, such as ADHD, language disorders and difficulties processing impressions.

"The child must therefore be monitored until at least the age of six," he says. "They might need supportive training and special needs teachers when they start school."

About 120 babies a year develop severe brain injury in Sweden owing to childbirth asphyxia. For several years now, national guidelines have been in place for treating children using hypothermia therapy, whereby the body temperature is reduced to 33.5 degrees for 72 hours. Boubou Hallberg shows that despite these guidelines, there are considerable national differences as regards how the method is applied.

Provided by Karolinska Institutet

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