

APGAR tests, which measure a child's vital signs and response to stimuli in the first minutes of life, can tell us more than we previously thought about risks of developing neurological disorders such as cerebral palsy and epilepsy.

The APGAR test



These tests are commonly carried out at 1, 5, and sometimes 10 minutes after birth, to give a quick evaluation of a baby's physical condition, and whether they need emergency care or other medical attention. The test provides a score from 0 to 10 with higher numbers indicating better health

Findings from Persson et al

Writing in The BMJ, the authors present their findings from a population based cohort study in Sweden, including over 1.2 million infants born between 1999 and 2012.

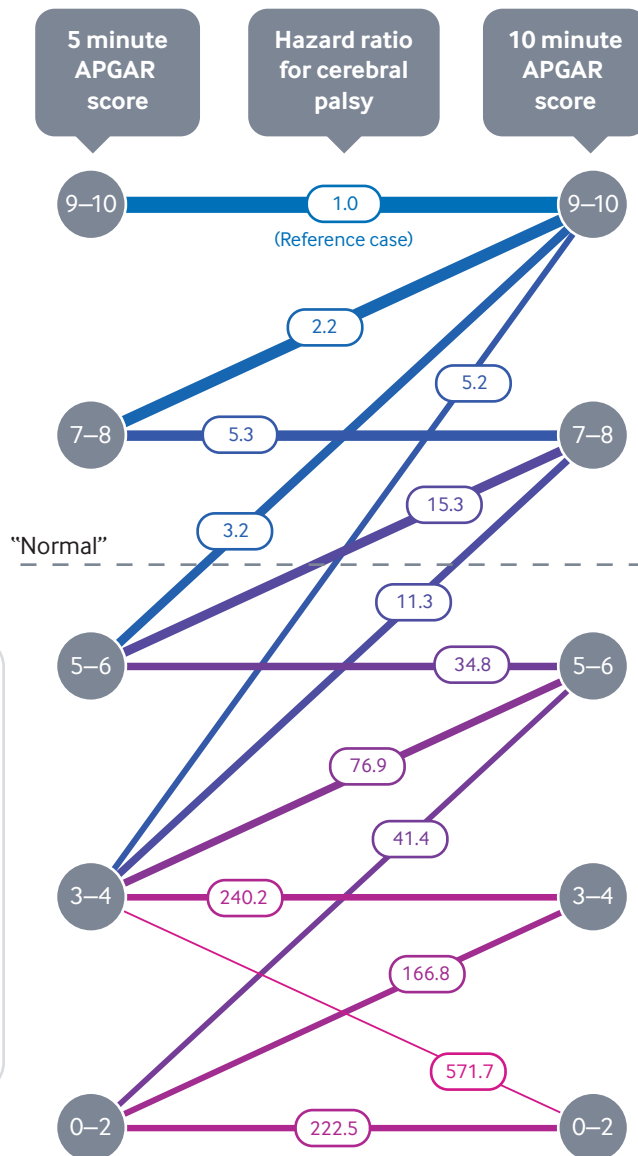
Each line on the graph to the right represents a group of children, with a particular combination of 5 and 10 minute APGAR scores.

Hazard ratios for cerebral palsy in each group are presented in bubbles toward the centre of the chart.

KEY

Line width proportional to number of children with score (log scale)

Lines coloured according to hazard ratio (log scale)



Even small improvements between 5 and 10 minutes have important impacts on risk of cerebral palsy

An APGAR score of 7 or higher is considered normal

However, children with scores of 7 or 8 have a 5-fold increase in risk of developing cerebral palsy

These findings suggest that continuing neonatal resuscitation of infants who are mildly compromised at 5 minutes could be beneficial

In many settings, care providers will only assign a 10 minute APGAR score if a low score is recorded at 5 minutes

These findings also suggest that assigning a 5 and 10 minute score for all infants could help to identify children at greater need of medical support