



Preterm born babies are a growing patient group who may require extensive support throughout life. Their brains are underdeveloped and highly sensitive, making them more vulnerable and at increased risk for neurodevelopmental challenges.

- Veronica Hermansson, specialist physiotherapist at the Pediatric Clinic at Södra Älvsborgs Hospital in Borås

SPECIALIST PHYSIOTHERAPIST VERONICA HERMANSSON

At the Pediatric Clinic at Södra Älvsborg Hospital in Borås, Veronica Hermansson works as a specialist physiotherapist. For many years, her primary focus has been developmental neurology and neonatal follow-up of preterm born babies, monitoring their development from the time they are discharged from the neonatal unit.

– The brains of preterm born babies are immature and highly sensitive. This increases their vulnerability and the risk of developmental neurological challenges, says Veronica.

Thanks to advancements in neonatal intensive care and growing knowledge, survival rates for extremely preterm born babies in Sweden have increased significantly over the past two decades. Today, it is possible to save the lives of babies born more than four months early. At the same time, understanding of how early birth affects brain development, including cognition, motor skills, hearing, and vision, has also improved.

During the first follow-up visit, Veronica assesses the baby's spontaneous motor activity, movements that are automatically generated by the nervous system and present already early in fetal development.

– There should be variation and complexity in a baby's movements, as this is important for supporting the development of the brain's motor pathways. If the baby doesn't display this naturally, we work on positioning strategies to help them access more varied movement patterns, and we guide parents so they can support their child's motor development at home, says Veronica.

Increased risks for preterm born babies

Most preterm born babies go on to develop normally, but the earlier a baby is born, the more vulnerable they are. Extremely preterm born babies, those born more than three months early, face a significantly higher risk of delayed psychomotor development, learning difficulties, ADHD, autism spectrum disorders, and long-term impairment of lung function. Brain development can also be affected by factors such as infections, nutritional deficiencies, pain, and stress. Additionally, the risk of cerebral palsy is increased.

– The small brain can change, for better or worse, so the earlier we intervene, the greater the chance we have to influence development in a positive direction. We may not be able to eliminate the injury itself, but we can influence the child's movement patterns, which in turn shape the neural pathways in the brain, helping to reduce the long-term consequences, says Veronica.

The first visit with the physiotherapist typically takes place around week 36-38 of gestational age, in connection with the baby's discharge from the neonatal unit. The second visit usually occurs when the baby is around 2-3 months corrected age, meaning the age the baby would have been if born at full term. Subsequent follow-ups are scheduled at approximately 6 months, 10 months, 18 months, 2 years and 5,5 years of corrected age.

– For the training to be effective, it needs to be integrated into the baby's daily care, and in that, the parents naturally play an essential role, says Veronica.

They may also need support later in life as the child grows.

Many children born preterm experience difficulties with motor regulation and coordination as they grow older.

– Approximately one third of children born before 30 weeks of gestation develop such significant coordination difficulties that they may be diagnosed with DCD (Developmental Coordination Disorder).

This means that these children may struggle with everything from keeping up with peers during activities to using utensils, learning to swim, or riding a bike. As they begin school, the demands increase and it often becomes more apparent that many of them face greater challenges.

– When we see that these children are facing challenges in their daily lives, we follow up with preschools and schools to ensure they receive the help and support needed to develop at their own pace, says Veronica.

Preterm born babies represent a growing group, which means that more and more will require significant support, something important not to forget, Veronica emphasizes.

– These are challenges that aren't always visible, but they place a significant burden on the child. It's a challenge for society to ensure there are enough resources in place so that these children receive the right support and help when they reach school age.