

Early intervention for premature infants increases IQ

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Babies born prematurely are at higher risk of having a lower IQ and impaired cognitive and motor skills. Programs aimed at helping these infants and their families once they leave the hospital have been found to increase IQ in the period up to school age and provide lasting improvements in cognitive skills, finds a new review in *The Cochrane Library*.

The review included 21 studies of early developmental intervention programs for babies born before the 37th week of pregnancy. Programs ranged from physical and occupational therapy for the infants to teaching parents how to best stimulate and interact with their babies. All of the programs included a health professional working with the infant after discharge from the hospital.

Although the programs provided only a small improvement in motor development, the size of the effect on cognitive development until school age was found to be clinically important.

"The differences in [cognitive outcomes](#) during infancy are approximately five developmental quotient points and at [preschool age](#), approximately seven IQ points," said lead author Alicia Spittle, Ph.D., a post-doctoral research fellow at Murdoch Children's Research Institute in Melbourne, Australia. "Unfortunately, there have not been as many studies that have followed these children into school age and those that do have variable results. Some show long term benefits and others don't."

Some of the intervention programs began before the [premature infants](#) were discharged from the hospital. These programs were found to make a greater difference than those that started later, Spittle noted.

Early interventions in development provide important help with more than cognitive and motor skills, said Nathan Blum, M.D., a development behavioral pediatrician at Children's Hospital of Philadelphia. These programs help noncognitive skills, such as increasing attention span, improved social skills, and increased perseverance by giving infants more stimulation and reinforcing acceptable behaviors, he said.

"These are skills that are largely beginning to develop in the preschool period and are areas where early intervention has profound effects." The improvements seen are especially strong in infants from families with psychosocial risk factors such as poverty or lack of education, he added.

More information: Spittle A, Orton J, Anderson P, Boyd R, Doyle LW. Early developmental intervention programmes post-hospital discharge to prevent motor and cognitive impairments in preterm infants. *Cochrane Database of Systematic Reviews* 2012, Issue 12. Art. No.: CD005495. [DOI: 10.1002/14651858.CD005495.pub3](https://doi.org/10.1002/14651858.CD005495.pub3)

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