

# New test allows parents to assess delayed development in premature babies

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The University of Reading has developed a new test that could help more babies that are born underweight reach their full mental development.

Reading researchers have designed ERIC - the [Early Report by Infant Caregivers](#). The test is an easy to use assessment for parents to detect delayed learning in babies that are born prematurely or with [low birth weight](#).

In a three-year study, funded by the National Institute of Health Research (NIHR), over 300 pre-term or underweight babies were assessed. ERIC proved to be as effective at identifying [cognitive problems](#) as the standard assessment currently used in clinics - the

## Bayley Scales of Infant Development.

Crucially ERIC has the potential to identify more babies with problems than Bayley does because it is quick and easy to use. It is able to assess babies at any age between 10-24 months whereas Bayley tends only to be used at fixed points, such as two years, due to a lack of resource in hospitals.

Babies who have issues that are identified earlier have a better chance of receiving helpful intervention to support their [mental development](#). Deployed alongside Bayley, ERIC will give more [babies](#) the chance of a better quality of life.

The team also found that if ERIC says a child does not have delayed learning there is over a 99% chance that is correct. So the test will act to reassure parents of the vast majority of [children](#) who do not have problems.

Dr Graham Schafer, from the University's School of Psychology and Clinical Language Sciences, was the project leader: "Over 50,000 children are born prematurely in the UK every year - most are not routinely followed up for cognitive development checks. A small proportion of these children will not develop fully, failing to achieve memory, language learning and problem solving milestones.

Undetected, these issues tend only to surface much later, usually at school. With earlier detection, there is the potential to help reduce the number of children who fail to reach their full potential.

"ERIC, which can be downloaded from the internet, generates a simple standardised score according to the age of the child. In our study ERIC identified well over 90% of the cases of delay. And crucially, if ERIC says your child is not delayed, there is over a 99% chance that is correct.

So ERIC is a very reliable tool which clinicians can give to worried parents or to anyone looking after an at-risk child. A 'positive' ERIC could then result in the child undergoing a Bayley. More targeted Bayleys mean more children will be assessed, either receiving reassurance or treatment."

Guidelines state that children born earlier than 32 weeks gestational age should have their mental development assessed at two years. Furthermore, even children born after 32 weeks, but earlier than full term (32-37 weeks) are at risk for delay.

Dr Schafer continued: "Doctors and other health professionals freely admit that there is difficulty meeting the guidelines. When the doctors know about a child they will be tested, but many others are not. Also, because of resource constraints, Bayley is not used routinely on children who are only slightly pre-term. These children can easily slip 'under the radar'. We need a more efficient method of checking children's development - ERIC could be the answer."

ERIC can also reduce stress for families. It can be conducted at-home and is designed to be enjoyed by baby and parent. ERIC takes perhaps an hour to complete but can be done over the course of a week using simple household objects like clothes pegs, bowls, and small toys.

"One game might be to find toys in a bowl with a lid, or to imitate a parent's actions," added Dr Schafer. "The baby's score is totalled and the result interpreted in seconds by a health professional. Bayley however must be undertaken 'in clinic' by specially trained healthcare workers and can take well over an hour to complete. A baby also may not perform well 'on the day', with clear implications for their score. On the other hand, parents at home parents can take a break at any time, resume later, and so getting the best out of their baby."

Provided by University of Reading

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