Long-term implications of being born Low Birth Weight (LBW)

The months a baby spends in the womb, along with the first 12 months after birth, are arguably the most important time of all for brain development. During this period, brain cells called neurons are forming connections with each other, creating the networks that underlie thinking, learning, and feeling. Low birth weight can disrupt early brain development. Low birth weight babies are at increased risk for developmental problems related to physical health, psychological adjustment, and intellectual functioning.

More low birth weight babies are surviving.

Medical advancements are succeeding in reducing infant mortality. Fragile infants are now more likely to survive.

1527 low birth weight babies were born in Shelby County in 2010. 91.5% of low birth weight babies born in 2009 survived their first year.\(^1\)

Low birth weight places infants at risk.

Long-term difficulties related to low birth weight have remained relatively unchanged.

- **6x** LONGER INITIAL HOSPITAL STAYS
- **≥ 15%** NEUROLOGICAL IMPAIRMENTS\(^1\)
  - i.e. cerebral palsy
- **20%** LOW IQ SCORES\(^3\)
- **≥ 20%** DEVELOPMENTAL PROBLEMS\(^3\)
  - i.e. language delays, attention disorders, emotional disorders
- **25x** HIGHER INITIAL HOSPITAL COSTS\(^1\)
  - 42% covered by Medicaid
- **≤ 60%** HEALTH COMPLICATIONS\(^2\)
  - i.e. chronic lung disease or brain hemorrhaging

Early intervention can improve outcomes.

For example, the Infant Health and Development Program (IHDP) is a national intervention for low birth weight and preterm infants that begins at birth and continues through age three. The program, which includes home visits, early education, and family support, has demonstrated positive effects throughout childhood and adolescence.*

Age 3 IQ SCORES

<table>
<thead>
<tr>
<th>Comparison</th>
<th>LBW Babies with Early Intervention</th>
<th>LBW Babies without Early Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>+9.4 POINTS</td>
<td>100%</td>
<td>51%</td>
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</table>

Age 8 COGNITIVE SCORES

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<th>Comparison</th>
<th>LBW Babies with Early Intervention</th>
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</tr>
</thead>
<tbody>
<tr>
<td>+4.4 POINTS</td>
<td>100%</td>
<td>51%</td>
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</tbody>
</table>

Age 18 MATH SCORES

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<tr>
<th>Comparison</th>
<th>LBW Babies with Early Intervention</th>
<th>LBW Babies without Early Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>+5.1 POINTS</td>
<td>100%</td>
<td>51%</td>
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</tbody>
</table>

Likelihood for TEEN ARRESTS\(^3\)

+25%

"The effects of low birth weight are not uniform. Generally, the lower the birthweight, the greater the risk of negative outcomes. Some of the specific health outcomes and intervention effects discussed here may apply only to certain subgroups.