HealthTrust Alliance™
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A SERVICE FOR LIFE-SPAN PROVIDERS

Dear Life-Span Members:

An interesting article from AP Health Science. My comments are in italics.

James Braly, MD.

AP Health-Science - 01/25/2001

Heavy Babies Are Smarter Adults

by
EMMA ROSS
AP Medical Writer

LONDON (AP) -- In the biggest study to date examining the influence of birth weight on intelligence, scientists have found that babies born on the heavy side of normal tend to be brighter as adults.

Experts have long known that premature or underweight babies tend to be less intelligent as children.

But the study, published this week in the British Medical Journal, found that among children whose birth weight was higher than 5.5 pounds -- considered to be normal -- the bigger the baby, the smarter it was likely to be.

Scientists think it has something to do with bigger babies having bigger brains, or perhaps with having more connections within their brains.

> *[High cereal diets result in offspring with smaller brain size [our brains are on average about 11% smaller than our ancestors prior to introduction of farming. Also, cereal-based vegetarian diets have been reported to result in smaller head circumferences in offspring---Are we are dumbing down many of our children by emphasizing 6-11 servings of mostly gluten grains a day?]*

But the lead researcher on the project said there was no need for parents of smaller infants to despair -- the results were averages and size at birth doesn't necessarily determine intellectual destiny.

"Birth weight is only one of numerous factors that influence cognitive function. It may not actually be a very powerful one," said Marcus Richards, a psychologist at Britain's Medical Research Council who conducted the study. "Parental interest in education -- being in the PTA and getting involved in your child's homework -- has an enormous impact, one that may even offset the effect of birth weight."

Similarly, Richards said, the head start enjoyed by hefty babies can be squandered. Living in an overcrowded home, breathing polluted air or being caught in the middle of a divorce tend to diminish children's intelligence scores, he said.

The scientists found that birth size influenced intelligence until about the age of 26. After that, it tended to even out, as other factors began to play a more important role.

The study did not offer concrete examples, such as how many IQ points' advantage a 10-pound baby might have over a 7-pound baby.

And of course, there are always exceptions.

The research involved 3,900 British men and women who were born in 1946 and followed since birth. Their intelligence was measured by a battery of tests at the ages of 8, 11, 15, 26 and 43.

Increasing intelligence corresponded with increasing birth weight until the age of 26. By the age of 43, the effect was weaker.

How brainy the children were at 8 seemed to be the most important influence on later intelligence, the study found.

Heavier babies

> *[with larger brains?]*

went on to achieve higher academic qualifications. That outcome was mostly linked to how brainy they were at age 8.

"It seems birth weight does what it does by age 8 and that that puts you on a path," Richards said.

But the effect seemed to have waned by the age of 43, by which time the smaller babies apparently caught up.

The results were not affected by birth order, gender, father's social class or mother's education and age. Even after the babies who were underweight were excluded, the link remained strong.

"This is an important finding that shows how strong the link is. We've seen it in low birth-weight babies, but this shows that even if you are a normal weight baby, bigger is better, at least when it comes to intelligence," said Dr. Catherine Gale, who has conducted similar research at Southampton University in England but was not connected with the study.

Experts don't know exactly what makes a heavy baby, but Gale said well-built, well-nourished mothers tend to produce heavier babies.

> *[Certainly, in the genetically predisposed mother & fetus--carriers of HLA DQ8?--a cereal-rich maternal diet might result in lighter babies with reduced head circumferences, resulting in lower IQ's?]*

Mothers who eat badly, smoke and are heavy drinkers tend to produce smaller babies. However, experts don't know whether those factors influence the relationship between birth weight and intelligence.

There are probably several other variables that affect birth weight, but which of those are connected to intelligence is not known, Richards said.