Drinking in pregnancy shows up in child's growth: study

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Research finds reduced height, weight, head size in kids whose mothers drank heavily while expecting.

(HealthDay) -- Children who had significant prenatal exposure to alcohol may have delayed weight gain during infancy and alcohol-related growth restriction from early infancy until 9 years of age, researchers report.

Weight, height and head circumference are indications of brain growth, the study authors pointed out. Persistent reductions in these measurements among children exposed to alcohol in the womb suggest the effects may be permanent and could affect their mental development, according to the study published online Aug. 15 and in the November print issue of *Alcoholism: Clinical & Experimental Research*.

"These effects may be detrimental to the children as growth deficits have been shown to be related to other health problems, such as lower IQ,"

study corresponding author Dr. R. Colin Carter, an instructor of pediatrics at Harvard Medical School, said in a news release from Children's Hospital Boston. "Furthermore, the effects of alcohol on growth were much more severe if the child had iron deficiency anemia as an infant, a condition that is common in the U.S. and worldwide."

The study involved newly pregnant women in Cape Town, South Africa. The researchers divided the women into two groups based on their drinking habits. In the first group, there were 85 women who drank two or more drinks per day or four or more drinks at a time. The second group included 63 women who did not drink at all or drank less than one drink daily.

While pregnant, the women described their smoking habits and alcohol and drug use to researchers, and provided demographic information. Their babies were measured for length, weight and head circumference when they were 6.5 months and 12 months old. These measurements were also taken when the children were 5 years and 9 years old.

Children whose mothers drank heavily while they were pregnant had reduced weight, height and head circumference, compared to children who were not exposed to as much alcohol, the study revealed.

"This alcohol-related growth restriction was present in early infancy and persisted through to 9 years of age. What is important is that these effects were exacerbated by iron deficiency in infancy," Carter said. "By contrast, iron deficiency at 5 years of age and food security did not impact the effects of alcohol on growth."

Children with significant prenatal alcohol exposure had a delay in weight gain at 12 months old, the study found. In addition, the children with fetal alcohol syndrome and partial fetal alcohol syndrome had leaner body composition than other children who did not have these conditions.

The study authors said that growth restrictions should be used as a marker for prenatal exposure to alcohol.

"We saw a postnatal delay in weight gain at 12 months, which may have relevance for postnatal nutritional interventions," Carter said. "The leaner body composition seen in children with [fetal alcohol or partial fetal alcohol syndrome] could be attributable to decreased nutritional intake, for example, total energy or protein, increased metabolic needs, for example, from increased catabolism or physical activity, or a deficit in nutrient utilization in alcohol-exposed children."

More information:
The U.S. National Library of Medicine has more about alcohol and pregnancy.