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The Influence of Prenatal Stress and Adverse Birth Outcome on Human Cognitive and Neurological Development\*

### Permalink

<https://escholarship.org/uc/item/6bm4f0gm>

### Journal

INTERNATIONAL REVIEW OF RESEARCH IN MENTAL RETARDATION, VOL 32, 32(Pediatric Research5552004)

### ISSN

2211-6095

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### Publication Date

2006

### DOI

10.1016/s0074-7750(06)32004-6

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# The Influence of Prenatal Stress and Adverse Birth Outcome on Human Cognitive and Neurological Development\* \*

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## Publisher Summary

Intrauterine experience and birth outcome have been linked to a wide range of disease outcomes including hypertension, [coronary heart disease](#), diabetes, and [polycystic ovary](#) disease as well as psychiatric illnesses including [schizophrenia](#), depression, [anxiety disorders](#), and suicide. The prenatal experience also appears to exert persisting and widespread influences on cognitive and neurological function later in life. This chapter focuses on the influence of preterm birth (children who are born prior to 37 completed weeks of gestation) and low birth weight (those that are born at a weight of less than 2500 g) and prenatal maternal stress on cognitive, motor, and neurological development in the human. The chapter discusses at least two direct ways through which prenatal stress might affect the structure and function of the brain. First, there is evidence in humans that prenatal stress is associated with decreased growth including head size. Second, areas of the brain that are particularly sensitive to [stress hormones](#), such as [glucocorticoids](#) (GCs), may be altered through stress exposure.

\* *Authors' note:* This paper was supported by National Institutes of Health Grants R01 HD-40967 to L. Glynn and R01 HD-28413 to C. Sandman.