

Stress-related adult disease may originate in fetal development

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According to a review in Annals of the New York Academy of Sciences, evidence is mounting that lifelong stress-related conditions such as depression and chronic pain may be linked to fetal growth and timing of delivery.

"During the past decade, a considerable body of evidence has emerged showing that circumstances during the fetal period may have lifelong programming effects on different body functions with a considerable impact on disease susceptibility," says review author Eero Kajantie. "In particular, evidence is starting to show that gestation period and birth weight may be related to the function of a specific metabolic pathway that controls cortisol levels."

According to Kajantie, babies born prematurely and/or underweight are more likely to suffer from either an overproduction, or an underproduction, of cortisol. Cortisol levels are linked to a wide variety of chronic conditions; too little cortisol is linked to chronic pain and fatigue, while too much is linked to heart disease and most forms of depression.

Kajantie recognizes that the effects of fetal environment on stress-related adult disease could have a fundamental impact on our understanding of these disorders and their prevention. While considerable research is required before more conclusions can be drawn, there is great potential for early disease diagnosis and prevention through the study of fetal development.

Source: Blackwell Publishing

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