

Research Reviews

Prenatal Maternal Stress

Mulder,E.J., Robles de Medina,P.G., Huizink,A.C., Van den Bergh,B.R., Buitelaar,J.K., Visser,G.H.(2002). Prenatal Maternal Stress: Effects on Pregnancy and the (Unborn) Child. Early Human Development,70(1-2):3-14.

This paper evaluates the existing evidence of ways in which prenatal maternal stress affects pregnancy outcome and results in early programming of brain functions with permanent changes in neuroendocrine regulation and behavior in human pregnancy and child development. A computerized literature search of pertinent articles suggest that well-controlled human studies indicate pregnant women with high stress and anxiety levels are at increased risk for spontaneous abortion and preterm labor and for having a malformed or growth-retarded baby (reduced head circumference in particular). Evidence of long-term functional disorders after prenatal exposure to stress is limited, but retrospective studies and two prospective studies support the possibility of such effects. A comprehensive model of interrelationships between maternal, placental, and fetal factors is presented. Apart from the well-known negative effects of biomedical risks, maternal psychological factors may significantly contribute to pregnancy complications and unfavorable development of the (unborn) child. These problems might be reduced by specific stress reduction in highly anxious pregnant women, although much more research is needed.