

Stressed-Out Women May Carry Smaller Babies

A new study has found that stressed-out pregnant women may carry smaller-than-average babies. Researchers from the University Miami School of Medicine in Florida studied 98 women who were between 16 and 29 weeks pregnant. The women completed questionnaires that measured their overall levels of distress caused by daily hassle, depression and anxiety. They also underwent ultrasounds to measure the size of their fetus, and their urine was monitored for its levels of hormones like cortisol, which is higher in a stressed person.

According to the study, which was recently published in *Psychosomatic Medicine*, the fetuses of mothers with higher rates of depression, anxiety and stress weighed less and were smaller than average.

After analyzing the effects of demographics, maternal distress and hormone levels, increased cortisol rates were the only significant predictor of fetal weight. "More anxiety equaled higher cortisol rates. And the more cortisol a woman had, the less her baby weighed," said Miguel Angel Diego, PhD, a lead researcher of the study who is with the Department of Pediatrics at the University of Miami School of Medicine.

This finding indicates that cortisol may be a mechanism for transmitting a mother's stress to her unborn baby. Too much cortisol can affect vascular functions, reducing blood flow to the fetus. And reduced blood flow can affect fetal development by diminishing the amount of oxygen and nutrients that are delivered to a baby.

Researchers emphasize, however, that the mother/fetal interaction is well-protected in most instances. Diego said that a high level of consistent stress (caused by, for example, relationship problems or a lack of pregnancy support) or a bout of severe acute stress (as experienced during an earthquake or war) have the greatest impact.

Diego said that future areas of research include examining the effects of psychotherapy or massage instead of medicine to reduce stress. He is also trying to get funding for further studies on pregnancy and stress.