

# Prenatal diagnosis of congenital heart disease increases maternal stress, depression, and anxiety

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Heart defects are the most common form of congenital malformations affecting newborns. Infants who were prenatally diagnosed with congenital heart disease (CHD) are more stable and have better outcomes than infants who were diagnosed after birth. Diagnosing CHD in a fetus also allows mothers to educate themselves on heart malformations, consider their options, and potentially plan for intervention or surgery after birth. However, a new study scheduled for publication in *The Journal of Pediatrics* finds that, along with these benefits, maternal posttraumatic stress, depression, and anxiety are common after prenatal diagnosis of CHD.

The [prenatal diagnosis](#) of CHD is a [stressful event](#) for parents, which can affect mood and anxiety. Maternal stress has been linked to fetal disturbances in the hypothalamic-adrenal-pituitary system, poor intrauterine growth, preterm birth, and newborns who are small for gestational age (associated with childhood attention and learning difficulties, anxiety, and depression). Therefore, healthy partner relationships and positive coping mechanisms are important for pregnant women to successfully deal with stress. Jack Rychik, MD, at the [Fetal Heart](#) Program at The Cardiac Center at The Children's Hospital of Philadelphia, states, "Our study supports the notion that maternal psychological support is an important intervention that may someday accompany prenatal diagnosis of CHD, in order to potentially improve outcomes for both fetus and mother."

Dr. Rychik and colleagues from The Children's Hospital of Philadelphia assessed women whose fetus had been diagnosed with serious CHD, requiring newborn assessment and cardiac surgery or catheterization within 6 months after birth. Two to four weeks after initial diagnosis, 59 pregnant women were given self-reporting surveys to assess

their perceived posttraumatic stress, anxiety, depression, coping responses, and couples/partner adjustment. The authors found that depression and anxiety were higher for the pregnant women whose fetus had been diagnosed with CHD and partner satisfaction was lower, compared with women with healthy pregnancies.

Twenty-two percent of the women in the study had depression, 31% had anxiety, and 39% had traumatic stress. Low income was associated with increased maternal depression. Low partner satisfaction was associated with increased maternal depression and anxiety. Denial was associated with increased maternal depression, anxiety, and traumatic stress, regardless of partner satisfaction or income. Alternatively, increased acceptance was associated with decreased maternal depression.

Women may grieve the loss of a "normal" pregnancy by going through the various stages of grief (denial, guilt, anger, bargaining, and potentially acceptance). Health care providers should incorporate a strategy of maternal stress reduction through the promotion of coping skills after diagnosis of a fetus with CHD and throughout the pregnancy. Although maternal coping is important, partner satisfaction may be a better "buffer" for the stress of prenatal CHD. Brief couples therapy also may be beneficial to the pregnant women and their partners.

**More information:** "Maternal Psychological Stress after Prenatal Diagnosis of Congenital Heart Disease" by Jack Rychik, MD, Denise D. Donaghue, RN, MSN, Suzanne Levy, PhD, Clara Fajardo, MS, Jill Combs, RN, MSN, Xuemei Zhang, MS, Anita Szwast, MD, Guy S. Diamond, PhD, appears in *The Journal of Pediatrics*, [DOI 10.1016/j.jpeds.2012.07.023](#)

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