

Healthy Heart, Healthy Pregnancies

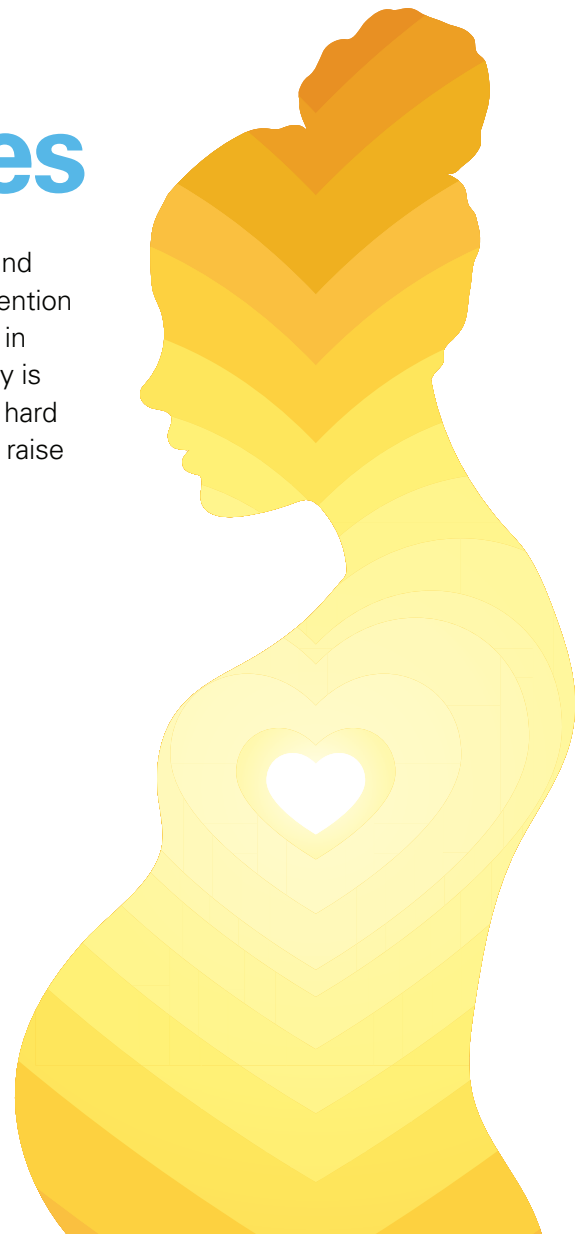
Cardiovascular conditions are one of the most common causes of morbidity and mortality among pregnant women. The Centers for Disease Control and Prevention (CDC) [reports](#) cardiovascular conditions and related complications affect four in 100 pregnancies and account for 33% of pregnancy-related deaths. Pregnancy is a significant stressor on the heart, causing it to beat faster and work twice as hard to circulate increased blood volume. Hospitals are implementing strategies to raise awareness and detect heart health needs early, during and after pregnancy.

Heart Conditions in Pregnancy

Hypertensive disorders of pregnancy (HDP) include preexisting hypertension, gestational hypertension, preeclampsia/HELLP syndrome and eclampsia.

- HDP affects **one in seven** delivery hospitalizations. SOURCE: [CDC](#)
- HDP **doubled between 2007 and 2019**, from 38.4 to 77.8 per 1000 live births. SOURCE: [American Heart Association](#)
- Preexisting hypertension occurs in **one in every 12 to 17 pregnancies** among women who are between the ages of 20 and 44. SOURCE: [CDC](#)
- Preeclampsia affects **5-8%** of pregnancies. SOURCE: [March of Dimes](#)

Other heart conditions that can impact pregnancy include arrhythmias, peripartum cardiomyopathy, deep vein thrombosis and pulmonary embolism, pulmonary hypertension, ischemic heart disease and congenital heart disease.



RISK FACTORS

- Older than 40
- Women of color
- Socioeconomic status
- Smoking and drug use
- Multiple pregnancies
- Family history of heart conditions
- Malnutrition
- Congenital heart defects
- Co-morbidities: preexisting hypertension, diabetes mellitus and obesity

SOURCE: [CDC](#)

URGENT WARNING SIGNS

- Dizziness or fainting
- Trouble breathing
- Chest pain or fast-beating heart
- Severe swelling, redness or pain of leg or arm
- Extreme swelling of hands or face
- Headache that won't go away or gets worse over time

SOURCE: [CDC](#)

DISPARATE IMPACT

- Black pregnant women are **60%** more likely to develop preeclampsia than white women. SOURCE: [NEJM](#)
- HDP increases the risk of stroke. Black women with HDP have a **66%** higher risk of stroke, and those with preeclampsia **53%**. SOURCE: [NEJM](#)
- **60%** of pregnancy, Indigenous women have an existing heart condition. SOURCE: [American Heart Association](#)
- Rate of HDP is higher among women in rural counties, low-income ZIP codes and delivered in hospitals in the South or Midwest. SOURCE: [CDC](#)

ADVERSE EFFECTS

- Pregnant women with high blood pressure or gestational diabetes can develop future heart conditions, especially women of color. SOURCE: [CDC](#)
- Hypertension in pregnancy increases the rates of hospitalization, postpartum hemorrhage, C-section, preterm birth and long-term increased risk of cardiovascular disease. SOURCE: [March of Dimes](#)

Actionable Solutions for Providers

- **Screen and identify** patients of reproductive age with heart conditions that may put them at risk of adverse outcomes in pregnancy.
- **Provide** preconception counseling to assess the risk associated with pregnancy and optimize the care of women with heart disease prior to pregnancy.
- **Offer** education to patients on urgent warning signs of maternal cardiovascular events.
- **Listen** to pregnant and postpartum women if they experience concerns.
- **Collaborate** with hospital leadership to develop programs focused on providing a multidisciplinary care around women with heart conditions during pregnancy.
- **Suggest** pathways for postpartum follow-ups and CVD prevention after pregnancy.

Hospitals in Action

Hospitals are promoting heart healthy pregnancies by:

Screening and training

Children’s Hospital of San Antonio of Christus Health uses the Practicing for Patients, an obstetrics simulation program, to identify, treat and manage expectant mothers who experience hypertensive emergency or postpartum hemorrhage.

In AHA’s [podcast](#), leaders from the **CDC’s Division of Reproductive Health** discuss the prevalence of hypertensive disorders of pregnancy, its health outcomes, and what hospitals can do to identify and prevent associated complications.

Remotely monitoring patients in fourth trimester

Boston Medical Center partners with Rimidi to provide blood pressure cuffs and QR codes to at-risk postpartum moms to remotely monitor every day for six weeks their hypertension.

Investing in blood pressure cuffs

Hannibal Regional Healthcare System implemented a home-based blood pressure monitoring program during pregnancy and postpartum for at-risk patients with low resources.

Employing telehealth services

The Postpartum Hypertension Program at **UPMC Magee-Womens Hospital** in Pittsburgh supplies enrolled pregnant and postpartum patients with a blood pressure cuff for home use, has a digital engagement platform to monitor blood pressures and symptom, and offers virtual visits with maternal fetal medicine specialists.

Winnie Palmer Hospital, part of **Orlando Health**, directs patients to its perinatal telehealth hypertension program to offer education and resources to identify and manage existing and potential heart-health related complications.

Addressing disparities

The **University of Chicago’s STAMPP-HTN** program offers virtual and in-person education to patients and providers, and remote blood pressure monitors to track blood pressure and symptoms during pregnancy and post-birth. Community health workers provide in-home support when applicable.

Resources from the Field

- **AHA’s Better Help for Mothers and Babies**
- **AHA’s Beyond Birth Podcast Series**
- **AIM Patient Safety Bundles: Severe Hypertension in Pregnancy, Cardiac Conditions in Obstetric Care**
- **American Heart Association Learning Module: Role of Cardiovascular Health in Maternal Health**
- **CDC Hear Her Campaign**
- **CDC Million Hearts Initiative**