

# Value of Diagnostics within Women's Health: Preeclampsia



*Preeclampsia affects 2-8% of all pregnancies<sup>1</sup>*

**Preeclampsia** is a high blood pressure (hypertensive) disorder that can develop during pregnancy (typically from 20 weeks but can occur earlier) and postpartum. Preeclampsia is characterized by high blood pressure, protein in the urine, or signs of kidney damage. While sudden weight gain or edema in the face and hands can also be signs of preeclampsia, many individuals do not present with physical symptoms.

## Relative Risk of Preeclampsia in the United States<sup>2\*</sup>

**0.82**

(0.68-0.96)

Asian

**1.0**

(reference)

White

**1.03**

(0.69-1.5)

Hispanic

**1.25**

(1.15-1.39)

Multiracial/  
Other

**1.64**

(1.24-2.30)

Black or African  
American

## Risk Factors

- ▶ Autoimmune disorders
- ▶ First-time pregnancy
- ▶ Maternal age of 35 years or older
- ▶ Obesity
- ▶ Pre-existing conditions (hypertension, diabetes, kidney disease)
- ▶ Pregnancy with multiples
- ▶ Previous experience or family history of preeclampsia

Preeclampsia is the **third leading cause** (16%) of maternal deaths globally,<sup>1</sup> yet, significant maternal morbidity and mortality due to complications from hypertensive disorders of pregnancy are preventable. Early detection and management of preeclampsia are critical for preventing progression to eclampsia, which involves seizures and sometimes coma.

**60% of preeclampsia-related deaths are preventable<sup>3</sup>**

## Diagnosing Preeclampsia

- ▶ **Biomarkers** to detect the levels of certain proteins (e.g., sFlt-1, PIGF, PAPP-A) in blood, bodily fluids, or tissues that predict preeclampsia
- ▶ **Biophysical profile** to measure amniotic fluid volume and the baby's breathing and movement using an ultrasound
- ▶ **Blood pressure monitoring** for persistent readings above 140/90 mmHg
- ▶ **Blood tests** to measure liver enzymes (AST, ALT), kidney function (creatinine, uric acid), and sometimes platelets
- ▶ **Fetal ultrasounds** to monitor baby's growth and amniotic fluid levels
- ▶ **Nonstress test** to check the baby's heart rate and normal baby movement
- ▶ **Urinalysis** to measure urine protein excretions over a 24-hour period to assess kidney function



*\*Relative risk mean (range), based on multiple studies*



**Postpartum preeclampsia – which develops between 48 hours and 6 weeks after giving birth – occurs in up to 27.5% of all pregnancies in the U.S.<sup>4</sup>**

## Policy Opportunities

The nation’s research and public health entities play complementary roles with health care policy to improve preeclampsia outcomes.

### ► Legislative Opportunities:

- Preventing Maternal Deaths Reauthorization Act expands support for Maternal Mortality Review Committees (MMRCs) that help inform recommendations to prevent future maternal deaths.
- Black Maternal Health Omnibus Act includes provisions focused on workforce training and the use of telehealth tools for screening and management of common health complications such as preeclampsia.

- **Expanded Maternal Health Coverage and Access:** States extending Medicaid postpartum coverage from 60 days to 12 months would help minimize maternal deserts, improving access to care and tackling pregnancy-related complications, including postpartum preeclampsia.

- **Federal Programs:** Federal research and public health agencies support the well-being of women before, during, and after pregnancy. Among the current initiatives funded by the U.S. government are:

- The Alliance for Innovation on Maternal Health, which improves clinical protocols for hypertension management in pregnancy
- The Maternal, Infant, and Early Childhood Home Visiting Services, which supports pregnant women living in communities that face greater risk of maternal morbidity and mortality
- MMRCs, which can implement public health surveillance programs to better understand the causes of pregnancy-related deaths and inform recommendations for preventing future deaths



## References

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