

Synopsis

HDP are strongly associated with maternal and fetal/neonatal complications and are a leading cause of pregnancy-associated mortality. HDP are increasingly common in the United States, affecting 15.9% of deliveries, with the highest prevalence experienced by Black and American Indian and Alaska Native women,^{15,16} women aged ≥ 35 years,^{17,18} and women with obesity.¹⁹

The management of BP in pregnancy-capable individuals requires special considerations. The overarching goals of antihypertensive treatment during pregnancy are aimed at preventing severe hypertension and preeclampsia and optimizing maternal and fetal/neonatal clinical outcomes. Compared with the diagnostic criteria for hypertension in adults presented in this document, the American College of Obstetricians and Gynecologists (ACOG) defines hypertension in pregnancy as an SBP ≥ 140 mm Hg or DBP ≥ 90 mm Hg on 2 occasions at least 4 hours apart, and severe-range hypertension as sustained SBP ≥ 160 mm Hg or DBP ≥ 110 mm Hg with verification in 15 minutes to avoid treatment delays (Table 20).^{6,20,21} Pregnant individuals with elevated BP are further classified as having 1 of the HDP based upon gestational age at diagnosis and the presence of target organ involvement (Table 21). Vascular and hemodynamic alterations in pregnancy result in a decline of BP by 10% in early pregnancy, reaching a nadir in the second trimester and slowly rising back to baseline by the end of the third trimester.²² It is because of these alterations that the classification of HDP depends on gestational age, and the use of BP monitors that have been specifically validated for accuracy (www.validatebp.org) in pregnancy is advised.^{23,24}

TABLE 20 Classification of Hypertensive Disorders of Pregnancy²⁰

Condition	Definition
Chronic hypertension	Diagnosis prior to pregnancy or at <20 wks' gestation
Gestational hypertension	De novo hypertension at ≥ 20 wks' gestation in the absence of proteinuria or other signs of preeclampsia
Preeclampsia	Gestational hypertension with proteinuria or other maternal end-organ dysfunction including neurologic findings, pulmonary edema, hematologic findings, acute kidney injury, hepatic dysfunction (Section 5.5.2 "Preeclampsia and Eclampsia, Including Preeclampsia Superimposed on Chronic Hypertension")
Preeclampsia superimposed on chronic hypertension	Preeclampsia in a woman with a history of hypertension before pregnancy or before 20 weeks' gestation

TABLE 21 ACOG Diagnostic Criteria for Hypertension in Pregnancy²⁰

Condition	Definition
Hypertension in pregnancy	SBP ≥ 140 mm Hg and/or DBP ≥ 90 mm Hg
Severe-range hypertension	SBP ≥ 160 mm Hg and/or DBP ≥ 110 mm Hg

ACOG indicates American College of Obstetricians and Gynecologists; DBP, diastolic blood pressure; and SBP, systolic blood pressure.

Recommendation-Specific Supportive Text

- When antihypertensive therapy is indicated in individuals planning a pregnancy or who become pregnant, labetalol and extended-release nifedipine are the preferred first-line agents.^{6,20} Among them, no specific agent is preferred because there is a lack of data supporting the use of 1 over the other, although nifedipine is dosed once daily, which may improve adherence.^{3-5,25} In a meta-analysis, BB and CCB appear more effective than methyl dopa for the prevention of severe hypertension.¹ Table 22 lists antihypertensive agents that can be used alone or in combination for chronic maintenance therapy in pregnant individuals. There are limited data available on the safety of amlodipine in pregnancy,²⁶⁻²⁸ but it does not appear to

TABLE 22 Common Oral Antihypertensive Agents in Pregnancy

Drug	Dosage	Comments
Labetalol	200-2,400 mg/d orally in 2 to 3 divided doses. Commonly initiated at 100-200 mg twice daily.	Potential bronchoconstrictive effects. Avoid in women with asthma, preexisting myocardial disease, decompensated cardiac function, and heart block and bradycardia.
Nifedipine	30-120 mg/d orally of an extended-release preparation. Commonly initiated at 30-60 mg once daily (extended release).	Do not use sublingual form. Immediate-release formulation should generally be reserved for control of severe, acutely elevated blood pressures in hospitalized patients. Should be avoided in tachycardia.
Methyl dopa	500-3,000 mg/d orally in 2 to 4 divided doses. Commonly initiated at 250 mg 2 or 3 times daily.	Safety data up to 7 y of age in offspring. May not be as effective as other medications, especially in control of severe hypertension. Use limited by side effect profile (sedation, depression, dizziness).
Hydrochlorothiazide	12.5-50 mg daily	Second- or third-line agent.

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