

Chronic Hypertension in Pregnancy

A plain-English guide for you and your family

WHAT IS HAPPENING

Chronic high blood pressure (hypertension) in pregnancy means your blood pressure was already high before you got pregnant, or it went high before you reached twenty weeks (before the halfway mark). Your blood vessels were already stiff or tight from before — maybe for years — so they cannot relax the way they should when pregnancy tries to open them up. Normally, pregnancy opens your vessels wide in the first half to let more blood flow to the baby, then pressure creeps back up near the end. But if your vessels were already damaged, they stay tight the whole time, so your heart has to push harder and pressure stays high. The big worry is that this long-term high pressure can hurt your kidneys, liver, heart, or brain over time, and it can also damage the tiny vessels in the placenta that feed your baby, so the baby may grow more slowly or the placenta may pull away early (called abruption). The other danger is that about one in four women with chronic high blood pressure will also get preeclampsia piled on top — a sudden worsening where your organs start to leak protein and swell — so your care team watches your blood pressure, urine, and blood tests closely throughout pregnancy. The goal is to keep your pressure controlled with medicines that are safe for the baby (like labetalol, nifedipine, or methyldopa — not the older pills that can harm the baby), deliver when it is safe, and catch any warning signs early so both you and your baby stay healthy.

What you might feel

- Blood pressure 140/90 or higher before 20 weeks of pregnancy or before getting pregnant
- Headache that won't go away
- Blurred vision or seeing spots, flashing lights, or dark patches
- Sudden swelling in the hands, face, or feet
- Chest pain or tightness
- Shortness of breath or trouble breathing
- Protein in the urine (proteinuria) found on routine testing
- No symptoms at all (silent high blood pressure)

Call the doctor right away if...

- Blood pressure 160/110 or higher at any visit (severe high blood pressure (hypertension) that can quickly harm the brain, heart, kidneys, or placenta)
- New or sudden severe headache that does not go away with rest or pain medicine
- Vision changes such as blurry sight, flashing lights, blind spots, or loss of part of the visual field
- Chest pain, trouble breathing, or coughing up pink frothy coughed-up mucus (sputum) (signs the heart or lungs are failing)
- New protein in the urine appearing after 20 weeks of pregnancy (may mean preeclampsia is layering on top of chronic high blood pressure (hypertension)—called superimposed preeclampsia)

What the care team will do

- Measure blood pressure every 15 minutes if it is 160/110 mmHg or higher, and start IV labetalol (a beta-blocker medicine that slows the heart and relaxes blood vessels) or IV hydralazine (a vasodilator that opens blood vessels) immediately.
- Place the patient on continuous fetal heart monitoring to watch the baby's heart rate pattern for at least 20 minutes.
- Start an IV line with at least an 18-gauge catheter and draw blood for a complete metabolic panel (tests for kidney and liver function), complete blood count (checks red cells, white cells, and platelets), and liver enzymes (AST and ALT).
- Assess for signs of severe features every hour: ask about headache, vision changes, and right upper belly pain; check deep tendon reflexes (knee jerks) for overactive reflexes (hyperreflexia) (overly brisk reflexes); and measure urine output to ensure at least 30 mL per hour.
- Keep the patient in a quiet, dimly lit room with the bed in a slight left-side tilt position and side rails up.
- Collect a clean-catch or catheterized urine sample and send it to the lab for a protein-to-creatinine ratio or 24-hour urine protein if not already done this visit.
- Teach the patient to report immediately any new headache, vision changes, right upper belly pain, sudden swelling, decreased fetal movement, or vaginal bleeding.
- Verify the patient knows the names, doses, and schedule of her home blood-pressure medicines and has a plan to check her blood pressure at least twice a day at home with an automatic cuff.

Medicines you may be given — and why

Labetalol

Labetalol blocks two kinds of switches on your blood vessels and heart. It slows the heart down a bit (beta-blocking) and tells blood vessels to relax and open wider (alpha-blocking). When vessels open, blood flows more easily and pressure drops. It's safe during pregnancy because very little crosses the placenta, so the baby's heart and blood flow stay protected.

Nifedipine extended-release

Nifedipine blocks tiny gates on blood vessel walls that normally let calcium flow in. Calcium makes muscle cells squeeze tight. When you block calcium from entering, the muscle in the vessel walls can't squeeze as hard, so the vessels relax and widen. This lowers pressure. The extended-release form releases the drug slowly all day, so your pressure stays steady.

Methyldopa

Methyldopa works in your brain, not directly on your blood vessels. Your body converts it into a fake chemical messenger that turns on special calm-down switches (alpha-2 receptors) in the brainstem, the part of your brain that sets your baseline blood pressure. When those switches are turned on, your brain sends fewer squeeze-tight signals to your blood vessels and heart, so pressure falls. It's one of the oldest and safest blood pressure drugs in pregnancy.

Hydralazine

Hydralazine forces the smooth muscle in artery walls to relax directly—it doesn't work through brain signals or by blocking switches. It opens up the vessels so blood flows with less resistance. It's often used as a rescue drug when blood pressure spikes dangerously high during pregnancy because it works fast, especially when given through an IV.

Low-dose aspirin (81 mg daily)

Aspirin blocks an enzyme called cyclooxygenase-1 (COX-1) in platelets—the tiny cell fragments in your blood that form clots. By blocking COX-1, aspirin stops platelets from making thromboxane A2, a chemical that tells them to clump together. This makes platelets less sticky. In pregnancy, this helps prevent abnormal clotting in the tiny blood vessels of the placenta, which lowers the risk of preeclampsia (a dangerous condition where blood pressure spikes and organs can be damaged). Aspirin does NOT lower your everyday blood pressure directly, but it protects you from a serious complication.

Where this information comes from

- ACOG Practice Bulletin No. 203: Chronic Hypertension in Pregnancy (2019, reaffirmed 2021)
- American Heart Association / American College of Cardiology Hypertension Guideline (2017)
- UpToDate: Preexisting Hypertension in Pregnancy
- CDC: High Blood Pressure During Pregnancy

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