

Gestational Hypertension

A plain-English guide for you and your family

WHAT IS HAPPENING

In a healthy pregnancy, blood pressure normally drops in the first half, then climbs back up near the end—this is the body adapting to feed the growing baby. Gestational high blood pressure (hypertension) happens when blood pressure climbs too high (140/90 or above) after 20 weeks, but the kidneys are still holding protein inside (no protein in the urine) and other organs are working fine. The root problem is that the blood vessels—especially the tiny ones in the placenta—don't relax and widen the way they should. Normally, pregnancy hormones and signals from the placenta tell vessel walls to loosen up so more blood can flow to the baby. When that signaling goes wrong, the vessels stay tight, so the heart has to push harder to get blood through, and pressure rises. The good news is that the vessel lining hasn't broken down enough to leak protein or hurt the liver, brain, or kidneys yet. The risk is that it can tip into preeclampsia if the lining damage gets worse, or the baby may grow slowly if blood flow stays pinched. Most of the time, blood pressure comes back down after delivery, because the placenta—the source of the bad signals—is gone. Until then, the care team watches pressure closely, checks the baby's growth with ultrasound, and delivers early only if things worsen. This isn't random; the high pressure is the body trying to force enough blood through stiff vessels to keep the baby fed.

What you might feel

- Blood pressure 140/90 mmHg or higher on two separate readings at least 4 hours apart after 20 weeks of pregnancy
- No protein in the urine (proteinuria is absent)
- Headache (usually in the front or back of the head)
- Vision changes (blurry vision, seeing spots or flashing lights, or temporary vision loss)
- Swelling (edema) in the face, hands, or feet
- Upper belly pain (especially under the ribs on the right side)
- Sudden weight gain (more than 2 pounds in a week or 6 pounds in a month)
- Nausea or vomiting (especially new or worsening in the second half of pregnancy)

Call the doctor right away if...

- Blood pressure 160/110 mmHg or higher (severe high blood pressure (hypertension)) — the mother or baby can be hurt quickly
- New severe headache that does not go away with rest or medicine
- Vision changes: blurry sight, flashing lights, spots, or losing vision for a few seconds
- Pain under the ribs on the right side or in the upper belly
- Signs the baby is in trouble: fewer kicks than usual, or the baby is not growing as expected on ultrasound

What the care team will do

- Measure blood pressure with the patient sitting after 5 minutes of rest, using the correct cuff size on the upper arm at heart level, and repeat in 4 hours to confirm 140/90 or higher
- Check a clean-catch urine sample with a dipstick for protein, and send a protein-to-creatinine ratio lab if dipstick shows 1+ or more protein
- If blood pressure reaches 160/110 or higher, notify the provider immediately and prepare IV labetalol or IV hydralazine to give within one hour
- Ask about headache, vision changes, right upper belly pain, nausea, and decreased baby movement at every visit, and escalate immediately if any are present
- Teach the patient to check blood pressure at home twice daily and call if readings are 140/90 or higher, or if severe symptoms appear
- Schedule weekly or twice-weekly office visits for blood pressure checks and non-stress tests (fetal heart monitoring) starting at 32 weeks
- Give aspirin 81 mg daily if the patient is high-risk and has not started it by 12 weeks, and continue until delivery
- Review the medication list and stop ACE inhibitors, ARBs, and atenolol immediately if found, then contact the provider for safe alternatives like labetalol, nifedipine, or methyldopa

Medicines you may be given — and why

Labetalol

Labetalol tells the heart to beat more gently and tells blood vessels to relax and widen. It blocks adrenaline's push on the heart (beta-block) and also loosens the squeeze on vessel walls (alpha-block). This lowers the pressure flowing through the pipes without cutting off the baby's blood supply. Safe during pregnancy because it does not tighten the vessels feeding the placenta or harm the baby's development.

Nifedipine (immediate-release or extended-release)

Nifedipine stops calcium from rushing into the muscle cells that wrap around blood vessels. Without calcium, those muscle rings cannot squeeze tight. The vessels stay open and relaxed, so pressure falls. Safe in pregnancy because it does not cross the placenta in harmful amounts and does not hurt the baby's heart or growth.

Methyldopa

Methyldopa travels to the brainstem (the control tower at the base of the brain that sets the body's resting 'tone') and flips on alpha-2 receptors there. This tells the brain to send fewer 'squeeze!' signals down the nerves to blood vessels and the heart. The whole system calms down: vessels relax, heart rate drops a bit, and pressure falls. Oldest and most-studied blood pressure drug in pregnancy—decades of safety data.

Hydralazine (IV for emergencies)

Hydralazine works right on the muscle layer of artery walls, triggering a chemical cascade that makes the muscle let go and the vessel open wide. Used IV (into the vein) when blood pressure is dangerously high (≥ 160 systolic or ≥ 110 diastolic) because it works within 10–20 minutes. Lowers pressure fast to protect the brain from stroke and the placenta from tearing away (abruption).

Low-dose aspirin (81 mg daily, started at 12–16 weeks)

Aspirin blocks an enzyme (cyclooxygenase, or COX) inside platelets (tiny clotting cells). This stops platelets from making thromboxane A₂, a chemical that makes vessels squeeze and clots form. In early pregnancy, abnormal placenta development triggers inflammation and clotting in tiny spiral arteries feeding the placenta. Low-dose aspirin tips the balance toward prostacyclin (a vessel-opening, clot-preventing signal from the vessel lining), improving blood flow to the placenta and lowering the risk of preeclampsia by about 10–15% if started before 16 weeks.

Magnesium sulfate (IV, for seizure prevention in severe cases)

Magnesium sulfate protects the brain from seizures (eclampsia) when blood pressure is very high or preeclampsia features appear. Magnesium floods into nerve cells and blocks NMDA receptors (doorways that let too much calcium rush in during a seizure). It also competes with calcium at muscle and nerve junctions, calming overexcited circuits. Does NOT lower blood pressure much by itself—used alongside labetalol or hydralazine to prevent the most dangerous complication: seizures that can harm or kill mother and baby.

Where this information comes from

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- ACOG Practice Bulletin No. 222: Gestational Hypertension and Preeclampsia (2020)

- American Heart Association / American College of Cardiology Hypertension in Pregnancy Guideline
- CDC Pregnancy Complications: High Blood Pressure
- U.S. Preventive Services Task Force (USPSTF) Preeclampsia Screening Recommendation

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