



## Precautions to Take When Starting Antihypertensive Treatment

Initiating antihypertensive therapy requires careful consideration of patient-specific factors, medication selection, monitoring for side effects, and ensuring adherence. Below are key precautions to follow when starting treatment.

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### 1. Confirm Diagnosis Before Starting Treatment

- ✓ Ensure accurate BP measurement (proper technique, multiple readings on different days).
- ✓ Rule out white coat hypertension (consider home BP monitoring or ambulatory BP monitoring).
- ✓ Identify secondary hypertension causes if BP is very high or resistant to treatment.

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### 2. Assess Patient's Overall Health & Risk Factors

- ✓ Look for comorbidities: Diabetes, kidney disease, heart disease, hyperlipidemia.
- ✓ Check for medication interactions: Some antihypertensives can interact with NSAIDs, steroids, or decongestants.
- ✓ Evaluate kidney function (eGFR, creatinine) & electrolytes before starting ACE inhibitors, ARBs, or diuretics.

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### 3. Choosing the Right Medication

- ✓ Tailor drug selection based on patient profile:
  - Diabetes or CKD? → ACE inhibitors (Lisinopril, Ramipril) or ARBs (Losartan, Telmisartan).
  - Elderly patients? → Calcium Channel Blockers (Amlodipine, Nifedipine) preferred.
  - Heart failure or post-MI? → Beta-blockers (Metoprolol, Carvedilol) + ACEI/ARB.
  - Pregnancy? → Labetalol, Methyldopa, Nifedipine (Avoid ACEIs & ARBs).
- ✓ Start with the lowest effective dose to minimize side effects.
- ✓ Avoid sudden BP drops, especially in the elderly (risk of falls & dizziness).



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## 4. Monitor for Side Effects & Adjust Accordingly

- ✓ ACE Inhibitors (e.g., Lisinopril, Ramipril)
  - Watch for: Dry cough, high potassium, angioedema.
  - Check: Serum potassium & creatinine 2 weeks after starting.
- ✓ ARBs (e.g., Losartan, Valsartan)
  - Alternative to ACEIs if cough occurs.
  - Monitor: Kidney function & potassium.
- ✓ Diuretics (e.g., Hydrochlorothiazide, Chlorthalidone, Furosemide)
  - Watch for: Low potassium (except in potassium-sparing types), dehydration.
  - Monitor: Electrolytes (Na, K), kidney function.
- ✓ Calcium Channel Blockers (e.g., Amlodipine, Nifedipine, Diltiazem)
  - Watch for: Leg swelling, flushing, headache.
  - Adjust dose if severe edema occurs.
- ✓ Beta-Blockers (e.g., Metoprolol, Atenolol, Carvedilol)
  - Watch for: Fatigue, slow heart rate, dizziness.
  - Avoid in: Asthma/COPD patients (can worsen breathing issues).

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## 5. Educate the Patient About Lifestyle Modifications

- ✓ Emphasize that lifestyle changes complement medication:
  - Low-sodium DASH diet.
  - Regular exercise (30 min/day, 5 days/week).
  - Weight loss if overweight (5–10% weight reduction lowers BP).
  - Smoking & alcohol reduction.
- ✓ Encourage home BP monitoring to track progress.

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## 6. Gradual Dose Titration & Regular Follow-Ups

- ✓ Start low, go slow – especially in elderly patients.
- ✓ Follow-up within 2–4 weeks to assess BP response and side effects.
- ✓ Adjust doses or switch drugs if BP remains high or side effects occur.

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## 7. Special Considerations in Certain Populations



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- ✓ Elderly Patients: Start at lower doses to prevent dizziness & falls.
  - ✓ Pregnancy: Avoid ACEIs & ARBs, use Labetalol, Methyldopa, or Nifedipine.
  - ✓ Diabetic Patients: Prefer ACEIs/ARBs to protect kidneys.
  - ✓ Heart Failure Patients: Avoid CCBs (except Amlodipine, Felodipine).
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## Conclusion:

- ✓ Confirm hypertension diagnosis before treatment.
- ✓ Choose medications based on patient-specific factors.
- ✓ Start with low doses & monitor for side effects.
- ✓ Educate patients on lifestyle changes & home BP monitoring.
- ✓ Schedule follow-ups to assess treatment response & adjust therapy.