



## 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.