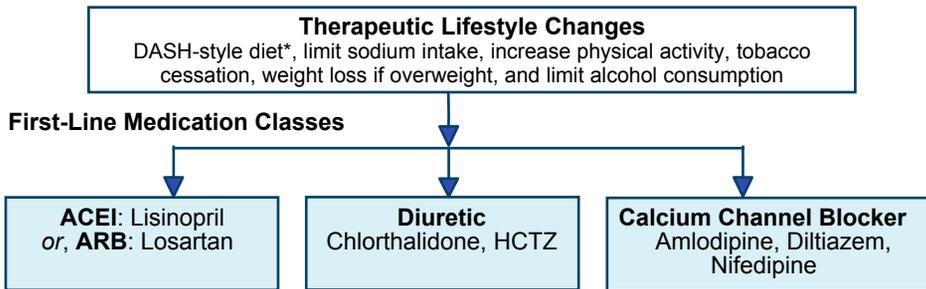


# Hypertension Therapy in Type 2 Diabetes

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**Please Note:** This algorithm is **not** intended for treatment and target selection in children < 18 years of age or in women who are or could become pregnant.



- **If BP not at goal in one month, consider titrating dose up and/or adding medication from a different class above.**
- Consider ACEI or ARB for patients with chronic kidney disease (CKD).
- Utilize these 3 classes before considering additional medication classes; however, base treatment selection on individual patient's indications and comorbidities.

### Consider Additional Medication Classes

If BP not at goal or unable to tolerate the first-line medication classes above, consider adding medications from additional drug classes.



## Treatment Target: < 140/90 for Most Patients

### Consider < 130/80 if:

- Younger Age
- Healthier
- CKD
- Low risk for hypotension
- Higher cardiovascular disease risk\*\*
- Target is achievable without burdensome side effects

### Consider < 150/90 if:

- Older Age/Frail
- Polypharmacy
- Multiple advanced comorbidities
- High risk for hypotension
- Lower targets are unachievable due to side effects

\* Dietary Approaches to Stop Hypertension (DASH) - consider referral to dietitian <https://www.nhlbi.nih.gov/health-topics/dash-eating-plan>

\*\* Consider using a CVD risk calculator such as the ASCVD PLUS risk calculator. <https://tools.acc.org/ASCVD-Risk-Estimator-Plus/#!/calculate/estimate/>

## -- First-Line Medication Classes --

### ACE Inhibitors (ACEI) / Angiotensin Receptor Blockers (ARBs)

- Lisinopril** Start 2.5-5mg daily; usually 20-40mg daily; max 80mg daily.
- Losartan** Start 25-50mg daily; max 100mg daily. Consider if intolerant to ACEI.
  - First line choice for patients with CKD. Can increase potassium and creatinine.
  - May cause cough (with ACEI) and rarely angioedema.
  - Do not use an ACEI and an ARB together in the same patient.

### Calcium Channel Blockers

- Amlodipine** Start 2.5-5mg daily; usually 5-10mg daily.
  - Consider in patients with angina or CHF.
- Diltiazem** Multiple formulations exist:
  - Sustained Release (BID), Controlled Delivery (daily), and Long Acting (daily).
  - Consult your local formulary to assure appropriate selection and dosing.
  - Diltiazem CD start 180-240mg daily; usually 240-360mg daily; max 480mg daily.
- Nifedipine XL** Start 30mg daily; max dose 120mg daily.
  - May cause edema.

### Diuretics

- HCTZ or chlorthalidone** Start 12.5mg daily, usually 25-50mg daily.
  - Higher doses may be used for other indications (e.g., edema).
  - Can decrease potassium.

## Additional Medication Classes

### Mineralocorticoid

- Spironolactone** Start 25mg daily; usually 50-100mg daily in 1-2 divided doses.
  - Can increase potassium. May take 2 weeks for treatment response.

### Beta Blockers

- Atenolol** Start 25-50mg daily in 1-2 divided doses; usually 50-100mg/day.
- Metoprolol** Start 50-100mg daily in 1-2 divided doses; usually 100-200mg/day; max 450mg daily. XR formulation dosed once daily.
- Carvedilol** Start 6.25mg BID; usually 12.5-25mg BID. CR formulation dosed once daily. Also indicated for heart failure (start 3.125mg BID).
  - Do not use if bradycardia or 2nd/3rd degree block. Caution in severe CHF, asthma, or renal dysfunction. Do not stop abruptly.

### Centrally Acting

- Clonidine** Start 0.1mg BID (first dose at bedtime); usually 0.1-0.3mg BID; max 1.2mg BID. Titrate up slowly. Can cause sedation, dizziness, and weakness. Do not stop abruptly.

### Alpha Blockers

- Doxazosin** start 1mg immediate release at bedtime; max 16mg daily.
- Prazosin** Start 1mg BID-TID (first dose at bedtime); max 15mg daily.
  - Titrate up slowly. Can cause dizziness, drowsiness, and weakness.

Medications on the **IHS National Core Formulary** are in **BOLD** above (link formulary)

Please consult a complete prescribing reference for more detailed information. No endorsement of specific products is implied.