JNC-8 Hypertension Guidelines 2014
For May University of Best Practices
**JNC-8 Hypertension Medication Algorithm 2014**

1. **At goal blood pressure?**
   - Yes
   - **No**

2. **Reinforce medication and lifestyle adherence.**
   - For strategies A and B, add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB).
   - For strategy C, titrate doses of initial medications to maximum.

3. **At goal blood pressure?**
   - Yes
   - **No**

4. **Reinforce medication and lifestyle adherence.**
   - Add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB).

5. **At goal blood pressure?**
   - Yes
   - **No**

6. **Reinforce medication and lifestyle adherence.**
   - Add additional medication class (e.g., β-blocker, aldosterone antagonist, or others) and/or refer to physician with expertise in hypertension management.

**Continued current treatment and monitoring**

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*Follow-up goal within one month per JNC-8 recommendation*

*If blood pressure falls to be maintained at goal, re-enter the algorithm where appropriate based on the current individual therapeutic plan.*
Implement lifestyle interventions (continue throughout management).

Set blood pressure goal and initiate blood pressure lowering medication based on age, diabetes, and chronic kidney disease (CKD).

**Adult aged ≥18 years with hypertension**

- Age ≥60 years*
  - Blood pressure goal*:
    - SBP<150 mm Hg
    - DBP<90 mm Hg

- Age <60 years
  - Blood pressure goal:
    - SBP<140 mm Hg
    - DBP<90 mm Hg

- All ages Diabetes present No CKD
  - All ages CKD present with or without diabetes

**Nonblack**

- Initiate thiazide-type diuretic or ACEI or ARB or CCB, alone or in combination

**Black**

- Initiate thiazide-type diuretic or CCB, alone or in combination

- Initiate ACEI or ARB, alone or in combination with other drug class

Select a drug treatment titration strategy
A. Maximize first medication before adding second or
B. Add second medication before reaching maximum dose of first medication or
C. Start with 2 medication classes separately or as fixed-dose combination.

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Right Care 2015

Updated 4/20/15
At goal blood pressure?

Yes

Reinforce medication and lifestyle adherence.
For strategies A and B, add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB).
For strategy C, titrate doses of initial medications to maximum.

No

At goal blood pressure?

Yes

Reinforce medication and lifestyle adherence.
Add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB).

No

Reinforce medication and lifestyle adherence.
Add additional medication class (eg, β-blocker, aldosterone antagonist, or others) and/or refer to physician with expertise in hypertension management.

Continue current treatment and monitoring*

At goal blood pressure?

Yes

Updated 4/20/15
Recommended Lifestyle Changes for Hypertension Management 2015

Distributed by Clinicians Group Capital Region
Right Care 2015

Updated 4/20/15
**Therapeutic Lifestyle Changes**

<table>
<thead>
<tr>
<th>Modification</th>
<th>Recommendation</th>
<th>Approximate SBP Reduction (Range)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce Weight</td>
<td>Maintain normal body weight (body mass index 18.5–24.9 kg/m²)</td>
<td>5–20 mmHg/10 kg</td>
</tr>
<tr>
<td>Adopt DASH eating plan**</td>
<td>Consume a diet rich in fruits, vegetables, and low-fat dairy products with a reduced content of saturated and total fat</td>
<td>8–14 mm Hg</td>
</tr>
<tr>
<td>Lower sodium intake</td>
<td>a. Consume no more than 2,400 mg of sodium/day; b. Further reduction of sodium intake to 1,500 mg/day is desirable, since it is associated with even greater reduction in BP; and c. Reduce sodium intake by at least 1,000 mg/day since that will lower BP, even if the desired daily sodium intake is not achieved</td>
<td>2–8 mm Hg</td>
</tr>
<tr>
<td>Physical activity</td>
<td>Engage in regular aerobic physical activity such as brisk walking (at least 30 min per day, most days of the week)</td>
<td>4–9 mm Hg</td>
</tr>
<tr>
<td>Moderation of alcohol consumption</td>
<td>Limit consumption to no more than 2 drinks± (e.g., 24 oz beer, 10 oz wine, or 3 oz 80-proof whiskey) ±± per day in most men, and to no more than 1 drink per day± (e.g., 12 oz beer, 4-5 oz wine, or 1.5 oz 80-proof whiskey) ±± in women and lighter weight persons</td>
<td>2–4 mm Hg</td>
</tr>
<tr>
<td>Tobacco cessation</td>
<td>Use Motivational Interviewing (MI) techniques versus usual care for smoking cessation to demonstrate a significant increase in quitting. MI delivered by primary care physicians nearly 4 times more effective than usual care but delivery by counselors closer to 1.25 (still a significantly higher quit rate than usual care).</td>
<td>3–5 mm Hg</td>
</tr>
</tbody>
</table>
## Components of the Dietary Approaches to Stop Hypertension Diet

<table>
<thead>
<tr>
<th>Dietary Component</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fat</td>
<td>27% of calories</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>6% of calories</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>150 mg</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>55% of calories</td>
</tr>
<tr>
<td>Fiber</td>
<td>30 g</td>
</tr>
<tr>
<td>Protein</td>
<td>18% of calories</td>
</tr>
<tr>
<td>Sodium</td>
<td>1,500 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>4,700 mg</td>
</tr>
<tr>
<td>Calcium</td>
<td>1,250 mg</td>
</tr>
<tr>
<td>Magnesium</td>
<td>500 mg</td>
</tr>
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</table>