

Latest Update on Hypertension - JNC 7

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The last Joint National Committee (JNC) 6 report was released in 1997. Since then the National High Blood Pressure Education Programme (NHBPEP) Coordinating Committee (a coalition of organisations and agencies in USA) appointed a committee to publish the latest JNC 7 report released on May 2003. The JNC 7 has strict criteria but has simplified the classification of blood pressure and hopes to provide new and concise guidelines useful for clinicians. (See **Table 1**)

Summary points:

1. There was a recognition of a pre-hypertensive phase defined as systolic BP between 120-139 mmHg or a diastolic BP between 80-89. For this group of patients, JNC 7 recommends lifestyle changes to prevent the development of hypertension and prevention of cardiovascular disease. This includes weight reductions, exercise, adoption of the Dietary Approaches to Stop Hypertension (DASH) eating plan, salt reduction, limiting alcohol intake and cessation of smoking, the latter being recommended for overall cardiovascular health.

TABLE 1. Blood Pressure Classification

BP Classification	Systolic BP mmHg		Diastolic BP mmHg
Normal	<120	And	<80
Pre-hypertension	120-139	Or	80-89
Stage 1 hypertension	140-159	Or	90-99
Stage 2 hypertension	≥160	Or	>100

TABLE 2. Therapeutic classes recommended in presence of other high-risk comorbidities

High Risk Conditions	Diuretic	Beta-blocker	ACE-inhibitor	Angiotensin receptor blocker	Calcium channel blocker	Aldosterone antagonist
Heart Failure	+	+	+	+		+
Post Myocardial Infarction	+	+	+			+
High Coronary disease risk	+	+	+		+	
Diabetes	+	+	+	+	+	
Chronic kidney disease			+	+		
Recurrent stroke prevention	+		+			

2. For hypertensive patients, systolic BP of >140 mmHg is a much more important cardiovascular disease (CVD) risk factor than elevated diastolic BP in individuals >50 years. The risk of CVD also doubles with each increment of 20/10 beginning at 115/75.

3. The target BP for most individuals would be < 140/90 mmHg but lower (< 130/80) for patients with diabetes mellitus or chronic renal disease.

4. For most patients with uncomplicated hypertension, thiazide-type diuretics (either alone or in combination with drugs from other classes) should be the therapeutic agent of choice.

5. In order to achieve BP goals, two or more anti-hypertensive drugs would often be needed. If the BP is > 20/10 above goal BP, consideration should be given to initiate therapy with two agents (one of which should preferably be a thiazide-type diuretic).

6. Certain high-risk conditions are indications for initial use of other anti-hypertensive drug classes. (See **Table 2**)

7. Follow-up visits should be monthly for stage 1 and more frequently for those with stage 2, until BP goals are achieved. Subsequent review interval could then be increased to 3- and 6-month intervals respectively.

8. Finally the committee recognises that the responsible physician's clinical judgement remains paramount in deciding on the most appropriate intervention strategies.

The family physician knows full well that achieving BP goals and compliance depends on a combination of patient, cost and doctor factors. It is worth while remembering that motivation improves when patients have positive experiences with and trust the doctor.

Summarised from the Seventh Report of the Joint National Committee (JNC) on Prevention, detection, Evaluation and Treatment of High Blood Pressure JAMA 2003;289:2560-72

HAND WASH REFRESHER

- a rhyme to remember all steps
Front/Back/Front/Back/Tips/Thumbs/Wrist

Step 1. **FRONT**
of hand (palmar surface)



Step 2. **BACK**
of hand and finger webspaces



Step 3. **FRONT**
of finger webspaces



Step 4. **BACK**
of middle and distal finger phalanges



Step 5. **TIPS**
of fingers



Step 6. **THUMBS**
web spaces



Step 7. **WRIST**



Picture Source : Johnson & Johnson Medical Singapore