

— SCREENING FOR — **HYPERTENSION** IN THE ADULT POPULATION — 2012 —

For all adults 18 years of age and older, we suggest screening at all appropriate primary care visits, which include: new patient visits, periodic health exams, urgent office visits for neurological or cardiovascular related issues, medication renewal visits, and other visits where the primary care practitioner deems it an appropriate opportunity to monitor blood pressure. It is not necessary to measure blood pressure on every patient at every office visit if not clinically indicated.

CANADIAN TASK FORCE ON PREVENTIVE HEALTH CARE (CTFPHC) RECOMMENDATIONS

1. We recommend blood pressure measurement at all appropriate primary care visits.
2. We recommend that blood pressure be measured according to the current techniques described in the Canadian Hypertension Education Program (CHEP) recommendations for office and out-of-office blood pressure measurements*.
3. For people who are found to have an elevated blood pressure during screening, the CHEP criteria for assessment and diagnosis of hypertension should be applied to determine whether the patient meets diagnostic criteria for hypertension**.

Please note: These recommendations do not apply to those who have already received a confirmed diagnosis of hypertension.

CONSIDERATIONS FOR IMPLEMENTATION

For primary care practitioners using electronic health records, flag a screening reminder for adults aged 18 years and older, especially for those who have not had their blood pressure measured.

SPECIAL CONSIDERATIONS

The frequency and timing of blood pressure screening may vary between patients. The risks of high blood pressure, stroke, or heart disease changes over a person's natural lifespan, increasing with age, comorbidities, and the presence of other risk factors. Therefore, screening frequency may increase accordingly, especially in patients with more than one vascular risk factor.

Having recent consistent normal blood pressure results may decrease the need for more frequent monitoring, while a tendency toward "high normal" blood pressure could indicate that more frequent monitoring is needed.

Adults identified as belonging to a high-risk ethnic group (e.g. South Asian, Aboriginal, African ancestry) may benefit from more frequent monitoring. Practitioners should remain alert for opportunities to screen infrequent visitors and others who have not been screened recently.

*See <http://www.hypertension.ca/accurate-measurement-of-blood-pressure>

**See <http://www.hypertension.ca/diagnosis>

THE CANADIAN TASK FORCE ON PREVENTIVE HEALTH CARE (CTFPHC): PUTTING PREVENTION INTO PRACTICE

The CTFPHC is an independent body of fourteen primary care and prevention experts who recognise and support the need for evidence informed preventive activities in primary care in Canada. We develop and disseminate clinical practice guidelines for primary and preventive care, based on the systematic analysis of scientific evidence. To learn more about the CTFPHC, visit our website at www.canadiantaskforce.ca.

SCREENING FOR HYPERTENSION IN THE ADULT POPULATION 2012

ADAPTED FROM THE CANADIAN
HYPERTENSION EDUCATION
PROGRAM (CHEP)

INITIAL BP MEASUREMENT

SBP 130-139 and/or DBP 85-89

Follow up annually

SBP ≥ 140 and/or DBP ≥ 90

Schedule a follow-up visit

Patients demonstrating features of hypertensive urgency or emergency¹

Diagnosis of HTN

FOLLOW-UP VISIT (#1) A history and physical examination should be performed and, if clinically indicated, diagnostic tests² to search for target organ damage³ and associated CV risk factors should be arranged within two visits.

SBP 130-139 and/or DBP 85-89

Follow up annually

Mean* SBP ≥ 140 and/or DBP ≥ 90

Schedule a follow-up visit within one month

Patients demonstrating features of hypertensive urgency or emergency¹

Diagnosis of HTN

FOLLOW-UP VISIT (#2) Within one month of follow-up visit (#1).

BP < 140/90 without target organ damage³, or DM

Follow up annually

BP 140-179/90-109 without target organ damage³, or DM

Choose one of the following:

SBP ≥ 140 and/or DBP ≥ 90 with target organ damage³, or DM OR SBP ≥ 180 and/or DBP ≥ 110

Diagnosis of HTN

Option 1:

FOLLOW-UP VISIT (#3) - Clinic BP

BP < 140/90

Follow up annually

BP < 160/100

Schedule follow-up visits OR conduct ABPM / HBPM

SBP ≥ 160 or DBP ≥ 100 averaged across visits 1-3

Diagnosis of HTN

FOLLOW-UP VISITS (#4, #5)

BP < 140/90

Follow up annually

SBP ≥ 140 or DBP ≥ 90 averaged across visits 1-5

Diagnosis of HTN

Option 2:

FOLLOW-UP VISIT (#3) and ABPM (if available)

Mean awake BP < 135/85 OR Mean 24 hr BP < 130/80

Follow up annually

Mean awake SBP ≥ 135 or DBP ≥ 85 OR Mean 24 hr SBP ≥ 130 or DBP ≥ 80

Diagnosis of HTN

Option 3:

FOLLOW-UP VISIT (#3) and HBPM (if available)

BP < 130/85

Follow up annually

Average** BP < 135/85

Repeat HBPM OR 24-hr ABPM

Average** SBP ≥ 135 or DBP ≥ 85

Diagnosis of HTN

- ¹ Examples of Hypertensive Urgencies and Emergencies:
- Hypertensive encephalopathy
 - Acute aortic dissection
 - Acute left ventricular failure
 - Acute coronary syndrome
 - Acute kidney injury
 - Intracranial hemorrhage
 - Acute ischemic stroke
 - Eclampsia of pregnancy

- ² Diagnostic tests:
- Urinalysis
 - Blood chemistry
 - Fasting blood glucose
 - Fasting cholesterol panel
 - Standard 12-lead ECG
 - Urinary albumin in diabetics

- ³ Examples of Target Organ Damage:
- Cerebrovascular disease
 - Stroke
 - Dementia
 - Hypertensive retinopathy
 - Left ventricular dysfunction
 - Coronary artery disease
 - Renal disease
 - Peripheral artery disease

* If initial SBP ≥ 140 and/or DBP ≥ 90 , two more readings should be taken using a validated device. The first reading should be discarded and the latter two averaged.

** Based on duplicate measures, morning and evening, for an initial seven-day period. First day home BP values should not be considered.

ABPM: Ambulatory BP Measurement
HBPM: Home BP Measurement

MEASURING BLOOD PRESSURE THE RIGHT WAY

PREPARATION

- Patient should not exercise in the preceding 30 minutes
- Patient should not drink coffee, eat food, smoke or take a decongestant in the preceding hour
- Ask patient to empty their bladder and bowel
- Seat patient in a calm and warm environment
- Allow patient to sit calmly for 5 minutes prior to measurement

WHILE TAKING BLOOD PRESSURE

- 1 Seat the patient
- 2 Ask patient not to speak
- 3 Ensure patient's back is supported
- 4 Ensure patient's legs are uncrossed
- 5 Ensure patient's feet are flat on the floor
- 6 Ensure patient's arm is supported
- 7 Place the cuff mid-arm at heart level
- 8 Place bottom of cuff 3 cm from the fold of the elbow on bare arm

HOME BP MEASUREMENT

- Measure twice in the morning and twice in the evening for 7 days
- Discard measurements for day 1
- Average the numbers

TARGET VALUE:

< 135/85 mmHg

OFFICE BP MEASUREMENT

- Take two measurements; same arm, same position
- Average the numbers
- Do not round the numbers

TARGET VALUES:

< 140/90 mmHg

< 130/80 mmHg diabetes

DEVICE

- Ensure that the device is validated (www.hypertension.ca) and regularly calibrated according to manufacturers' recommendations
- Ensure that appropriate cuff sizes are available: small, medium or large according to arm size



Endorsed by:



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