

DO IT YOURSELF!

Blood pressure monitoring moves out of the doctor's office and into your living room

by Dr. Gregory Curnew and Andrew Dick

Key to reaching and maintaining blood pressure control is an accurate reading of how high your blood pressure really is. Measurements taken in your doctor's office, home, pharmacy and by ambulatory monitoring all contribute to the total picture.

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The science of blood pressure or **hypertension** has evolved in the past decade, and we now know that the total blood pressure burden (meaning the amount of time your blood pressure is high) is a more important indicator of cardiovascular risk than the occasional measurement taken in your doctor's office. People show huge fluctuations in their blood pressure (BP) readings, depending on the situation and the time of day, and it's impossible for your doctor to record enough readings in enough different settings to obtain an accurate picture. The Canadian Hypertension Society now recommends that all people with hypertension should have a BP monitor at home and be taught to use it.

YOU'RE NOT ALONE

Currently, one in five Canadian adults has established high BP, meaning a BP over 140/90 in the doctor's office or average daytime home or ambulatory BP



See the glossary on page 23 for a definition.

model costs approximately \$100. It's important to measure your arm circumference before you buy your monitor so you get the right size of cuff. The device you choose should have a memory or print-out feature that allows you to store readings to show your doctor.

PHARMACY-BASED MONITORS

BP monitors at your local pharmacy can also help you track your hypertension. But you need to be cautious. A number of years ago a hypertension expert from Toronto, Dr. Martin Myers, sent his nurse to a number of local pharmacies and demonstrated that many of the machines in place at that time gave inaccurate results.

The machines used in pharmacies require recalibration, and this turned out to be a major reason for inaccuracies. Don't hesitate to ask your pharmacist when the machine was last recalibrated. More recent studies have demonstrated better results with BP measurements from pharmacy-based monitors.

The other problem with pharmacy readings is that they're usually taken in a rushed manner and can result in falsely high values. It's best to take your BP in many different settings and keep track of the readings. Patterns and variations from one location to another will then become obvious.

AMBULATORY MONITORING

An ambulatory BP monitor is a device worn for 24 hours that takes measurements automatically at regular intervals during the day and night. Your doctor will lend you the device. Ambulatory monitoring improves our ability to diagnose and manage hypertension. Some people with high BP readings in a

doctor's office may still have "normal" BP. In such cases, regular readings over the course of 24 hours can help confirm or rule out a diagnosis of hypertension and design a management plan.

The results of ambulatory monitoring should be interpreted alongside other readings to take day-to-day variations into account. A 24-hour BP under 130/80 mmHg is considered non-hypertensive, or "normotensive," but readings at specific times are also important. Average daytime BP should be under 135/85 and there should be a 10-20% drop at night, to an average through the night of 120/75.

A BP that either fails to go down at night, or plunges too dramatically, is a worrisome sign.


Confirming diagnosis

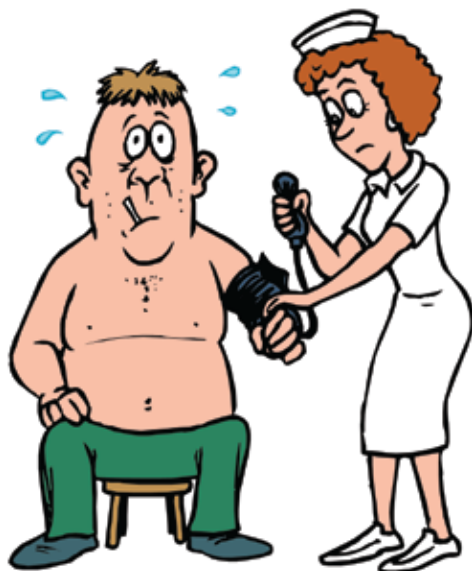
Ambulatory measurement can be useful to confirm a diagnosis and rule out white-coat hypertension (when your BP only goes up at the sight of a white coat like me!) in people who have fluctuating BPs. Even if hypertension is ruled out for the moment, there's still a higher risk for developing clear hypertension over the next few years and regular follow-up should be arranged. People with normal readings at the office but high

values on home or ambulatory devices — something we call masked hypertension — also have a higher risk of cardiovascular events.

If you're taking antihypertensive medications, a 24-hour ambulatory monitor can help check that your BP is well controlled.

PLAY AN ACTIVE ROLE

The benefits of keeping your BP under control are clear. Your commitment to monitoring it carefully and discussing changes with your doctor will help ensure long-term success. 



Before you purchase a monitor, check that the model has met the **standards** set by the **Canadian Hypertension Society**. See their website for an up-to-date listing of **approved products**