24 Hour Blood Pressure Monitoring FAQ

Q: What is a 24-hour blood pressure monitoring or ABPM?

A: A 24-hour blood pressure monitoring or ABPM uses a digital machine to take and record your blood pressure for 24 hours by inflating a cuff around your upper arm and then slowly releasing the pressure.

ABPM, Ambulatory Blood Pressure Monitors, allow a doctor to assess your blood pressure during your routine daily living, instead of when you are sitting nervously on the doctor's examination table.

Q: Why do I need a 24-hour blood pressure measurement of a ABPM?

A: ABPM reports your blood pressures as they are obtained through a wide range of situations and activities — from running to catch a bus to sleeping. It is normal for a person's blood pressure to fluctuate tremendously during the many activities a person typically performs in a day. So, unlike the blood pressure you get in the doctor's office, the ABPM does not report merely a single value for systolic and diastolic blood that supposedly represents your official "blood pressure." Instead, it reports an entire range of (often) widely variable values throughout the course of a day or longer.

Q: What are the other uses of ABPM?

A: ABPM has also been useful in situations in which it has been difficult to determine the effectiveness of an anti-hypertensive treatment regimen, or when a person is suspected to have abnormally wide fluctuations in blood pressure that make diagnosing and treating hypertension difficult.

ABPM testing can also help to predict the likelihood of cardiovascular (blood vessels in the heart) and cerebrovascular (blood vessels in the brain) disease linked to hypertension and organ damage.

Ambulatory BP monitoring may also be suitable in other situations, such as for:

- Pregnant women with hypertension
- Patients with "borderline" hypertension
- Difficulty controlling BP with medication
- BP changes due to other drugs

- Changes in prescription medications that may impact BP
- Fainting episodes or hypotension (low BP)

Q: How do you interpret ABPM results?

A: The technique most commonly used for evaluating the results of ABPM is to average a person's systolic and diastolic blood pressures for a full 24 hour period, and also for the hours that the person is awake and asleep.

Hypertension is generally diagnosed if the average blood pressure exceeds one of the following values:

- 24 hour average: systolic blood pressure above 135 mmHg, OR diastolic blood pressure above 80 mmHg.
- Average for "awake" hours: systolic blood pressure above 140 mmHg, OR diastolic blood pressure above 90 mmHg.
- Average for "asleep" hours: systolic blood pressure above 124 mmHg, OR diastolic blood pressure above 75 mmHg.

Q: What happens during 24-hour blood pressure monitoring?

A: A 24-hour blood pressure measurement is just the same as a normal blood pressure check: The machine is small enough to be worn on a belt on your waist while the cuff stays on your upper arm for the full 24 hours.

The machine then takes blood pressure readings at regular intervals throughout the day: usually, every 15-30 minutes during the daytime and 30-60 minutes at night. You will need to keep the monitor on through the night – you could put the machine under the pillow or on the bed while you sleep.

At the end of the 24 hours you can remove the machine and cuff and give it back to the hospital. The machine will have stored all your readings and these will then be analyzed.

Q: What do I need to do during 24-hour blood pressure monitoring?

A: To allow the machine to work properly, it is important to make sure that the tube to the machine is not twisted or bent. Also, just before the machine is about to take a reading, it will beep. When this happens you should:

- sit down, if possible
- keep the cuff at the same level as your heart
- keep your arm steady.

Because the test is being carried out to find out what your normal daily blood pressure is, it is important to carry on with your normal routine and do all the things you would normally do. The only things you should avoid doing for the day are swimming and having a bath or shower.