

HYPERTENSIONWATCH

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BLOOD PRESSURE MONITORS

AM Surge Detection May Help Diabetes

Patients with type 2 diabetes who have consistent elevated blood pressure (BP) in the morning are more prone to kidney disease, eye disease, heart disease, and stroke. In the study, the researchers examined 170 patients with diabetes to determine how well regular home BP predicted complications related to their disease, compared with BP readings taken at a clinic.

The findings, reported in *Diabetes Care* (December 2002), showed no major differences in the occurrence of diseases among patients whose BP measured high at the clinic. Patients whose morning readings revealed higher BP were more prone to have diabetes-linked complications and heart disease, however. The findings underscore the need for patients with diabetes to monitor their BP at home. For more information on morning hypertension, visit www.morningbp.com/pt3.

Early BP Problems May Lead to Heart Trouble

A study of young individuals in 13 American Indian communities with high blood pressure (BP) showed that they are at risk of having an abnormally large heart. Of the participants, 294 had hypertension and 675 had prehypertension.

A diagnosis of hypertension or prehypertension was associated with a greater risk of having changes in the heart structure associated with increased heart risk, including a higher rate of left ventricular hypertrophy. The frequency of left ventricular hypertrophy was 3 times higher among the hypertension group and 2 times higher among the prehypertension group, according to the findings reported in *Circulation* (January 16, 2007).

The findings emphasized the need for increased preventive measures, and regular home monitoring of BP. For more information on morning hypertension, visit www.morningbp.com/pt5.

Caution: Morning BP May Impact Stroke Risk

During the first few hours of the morning, patients with high blood pressure (BP) may experience morning hypertension. This morning surge puts patients at risk for stroke.

In an editorial in the March 18, 2003, issue of *Circulation*, Norman Kaplan, MD, summarizes Kazoumi Kario, MD, PhD, and colleagues' findings, which indicated that early morning hypertension increased the risk of stroke in seniors with high BP. For the study, 519 seniors were studied with ambulatory BP monitoring. During 41 months of follow-up, 44 strokes were reported.

The study found that patients with the highest early morning BP (within 2 hours of rising) had a greater risk of multiple silent infarcts at baseline magnetic resonance imaging (57% vs 33%), and almost a 3-fold higher stroke incidence during follow-up (19% vs 7.3%). The findings reiterate the need for hypertensive patients to learn how to monitor their BP at home to help prevent stroke and other cardiovascular events. For more information on morning hypertension, visit www.morningbp.com/pt4.

Home Monitoring Improves BP

An analysis of 18 blood pressure (BP) monitoring studies found that individuals who monitor their BP at home have better control over their condition. The findings, presented at the 14th European Society of Hypertension meeting (June 2004), included 1359 patients who monitored their BP at home and 1355 patients who had their BP monitored by clinicians. The researchers discovered that BP was lower in patients who conducted home monitoring, compared with patients seen in the health care system. They found that home BP monitoring was associated with better BP values and improved control of hypertension, compared with traditional BP monitoring in clinics.


The researchers concluded that home BP monitoring will help to involve patients in the management of their own BP and help to determine if they are at risk for morning hypertension. For more information on morning hypertension, visit www.morningbp.com/pt6.

Self-monitoring Can Guide BP Treatment

Blood pressure (BP) measured at home is as precise as 24-hour ambulatory monitoring, so either can be used to modify medication taken to lower BP, according to findings reported in the *American Journal of Hypertension* (May 2006).

For the study, 98 patients with untreated hypertension were randomly assigned to routine home monitoring or ambulatory monitoring. At 6-week periods, average home BP measurement or one 24-hour period of ambulatory monitoring was used to adjust their antihypertensive treatment. The researchers reported that, during 6 months of follow-up, BP decreased con-

siderably in both groups, and the changes were not dramatically different between the 2 methods.

Lead researcher Teemu J. Niiranen commented that "home blood pressure measurement can be used effectively for guiding antihypertensive treatment." In an accompanying editorial, George S. Stergiou, MD, added that the home approach "is more convenient and better accepted by the patients for long-term use and also less costly, compared to ambulatory monitoring." For more information on morning hypertension, visit www.morningbp.com/pt7. 

FAST FACT: Individuals with high blood pressure are 4 times more likely to have a stroke and 3 times more likely to develop heart failure.