

# Stress & High Blood Pressure

## Panic Attacks are More Common in People with High Blood Pressure

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Panic attacks have only been recognized as a discrete entity since 1980, and it has been suggested that they may be related to hypertension. Now a study has come up with an answer. The definition of a panic attack is "a discrete period of intense fear or discomfort involving at least four of the following symptoms:

1. Shortness of breath or smothering symptoms
2. Dizziness, unsteadiness or faintness
3. Palpitations or rapid heart beats
4. Trembling or shaking
5. Sweating
6. Choking
7. Nausea or stomach upset
8. Depersonalization or feeling of unreality
9. Numbness or tingling
10. Hot flushes or chills
11. Chest pain or discomfort
12. Fear of dying
13. Fear of going crazy or losing control

The study looked at two samples of patients with high blood pressure (all were taking blood pressure lowering medications or had a blood pressure of at least 160/90mmHg), one of which was selected from a primary care practice, and the other from a hospital clinic, and compared them with the same number (about 350 people) of patients with normal pressure from the same family practice. All were sent questionnaires asking them if they had the symptoms described above.

The main finding was that panic attacks were significantly commoner in people with hypertension as opposed to those with a normal blood pressure: the percentages of people with panic attacks were 35% in the primary care practice, 39% in the hospital practice, and 22% in the normotensives. Both groups of hypertensives were more likely to have spontaneous panic attacks (ones that started for no obvious reason), and the attacks were more likely to be severe. The hypertensives were also more likely to report that they were generally anxious than the normotensives. The use of different types of antihypertensive drugs did not appear to influence whether or not the hypertensives had panic attacks. In most patients the panic attacks started after the hypertension. Whether hypertensive or not, women were more likely to report panic attacks than men.

### **Doctor's Comments**

This study shows clearly that there is a connection between panic attacks and hypertension, but it does not tell us which is the chicken and which is the egg. The fact that the hypertension started before the attacks in most patients makes it unlikely that the attacks were the direct cause of the hypertension, however. Other

studies have shown that blood pressure goes up during an attack, but it comes down again when the attack is over. What causes these attacks remains a mystery; although they have some relation with a generally anxious personality, this relationship is not very strong.

**Source:** SJC Davies and colleagues. Association of panic disorder and panic attacks with hypertension. *American Journal of Medicine* 1999; 107:310.

## **Does Stress Cause Hypertension?**

There is no doubt that acute stress can cause a transient increase of pressure, but whether exposure to chronic stress raises pressure is controversial. When people move from a traditional village life to the big cities, their blood pressure goes up, but whether this is from stress or a change of diet is uncertain. Having a stressful job may raise the pressure in men but probably not so much in women.

## **'Fight or Flight' Response Raises Blood Pressure -- Even While You're Asleep**

Many people experience sleep apnea; it occurs especially in those sleeping on their backs and snoring, when the tongue and soft parts of the upper airway may fall back and partially block the airway. This causes a period of intermittent breathing known as obstructive sleep apnea (OSA).

From the University of Colorado Health Sciences Center comes a report on the effect of sleep apnea on hypertension. As the period between breaths increases, the amount of oxygen in the blood may fall. This sets off the body's 'fight or flight' mechanism, which is a reflex controlled by the sympathetic nervous system. When that happens, the vascular system clamps down and raises blood pressure in an attempt to get the body ready for action.

When normal breathing resumes, blood pressure levels return to normal. Hypertension in awake patients is also associated with increased activity of the sympathetic nervous system. Individuals who have not been identified as OSA patients exhibit this same sympathetic response. A common respiratory therapy, called continuous positive airway pressure, or CPAP, has been shown to lower blood pressure in some hypertensive OSA patients. Effective CPAP therapy moderates this hypertensive effect even in awake patients with undiagnosed OSA.

**Source:** Zwillich, CW. Obstructive sleep apnea causes transient and sustained systemic hypertension. *Int J Clin Pract* 1999;53(June):301-5. (Abs)