FEELING THE PRESSURE

A raised BP reading may not always be an indicator of hypertension. Sometimes it could just be the 'white-coat effect' playing havoc, making diagnosis tricky

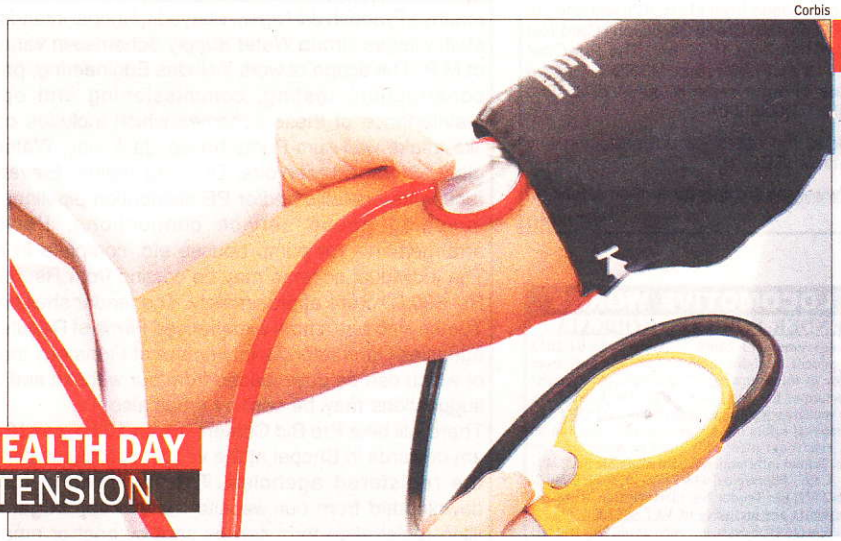
Malathy Iyer | TNN

Diagnosing hypertension would seem the easiest task in medicine. Get strapped to a simple sphygmomanometer and the diagnosis is ready in the few seconds that it takes the heart to beat out a lub-dub tune.

But India's hypertension story—with over 139 million patients at a conservative estimate—is far from simple. On the one hand, experts warn of a silent epidemic in which people, especially those in rural areas, fail to get diagnosed before some organ failure sets in. The World Health Organisation has, in fact, dedicated this year's World Health Day to the perils of untreated hypertension on one's heart, kidneys and brain. On the other hand, there is the human element—a sudden burst of self-concern at seeing the doctor wearing a white coat — that sends blood pressure soaring.

WORLD HEALTH DAY
HYPERTENSION

Corbis



RISING CRISIS

- 1 in 5 adult Indians suffers from hypertension
- Ministry of health defines hypertension in adults as **systolic BP of 140 or greater and/or diastolic of 90 or greater**, based on average of two or more properly measured, seated BP readings on each of two or more visits
- **Treatment:** Lifestyle changes and medicines. Patients with **Stage 1 hypertension without any other risk factors may not need medication** if they modify their lifestyle

CHECK YOUR BLOOD PRESSURE

BP Classification	Systolic (mm Hg)		Diastolic (mm Hg)
Normal	<120	and	<80
High Normal	120-139	or	80-89
Stage 1 hypertension	140-159	or	90-99
Stage 2 hypertension	>160	or	>100

While a lot has been written about underdiagnosis of hypertension, it is only recently that the medical fraternity has begun vocalising the perils of overdiagnosis and overmedication. The reaction to the white coat—awarded a medical nomenclature as the 'white-coat effect'—creates a huge increase in BP readings. "Many patients will have high blood pressure when visiting their doctor's office," says Dr Anoop Misra, who heads the department of diabetes and metabolic diseases in Fortis Hospitals, Delhi. Endocrinologist Shashank Joshi from Mumbai's Lilavati Hospital says almost 30% of the patients who walk into a doctor's clinic would suffer from the white-coat effect.

A team from Duke University in the US studied the phenomenon in the management of hypertension. In the study, published in the Annals of Internal Medicine, BP readings taken in doctors' offices were consistently higher than those taken at home or in a research setting. The study concluded that the white-coat effect was responsible for patient overtreatment.

In India where one in five (and in some cities, one in four) adults is supposed to be suffering from hypertension and taking pills, there is a need to weed out the white-coat effect. "Pilots often have a higher BP reading at their aviation company doctor's clinic. But when they are sent to us for a re-evaluation, the pressure is lower," says cardiologist Ganesh Kumar with L H Hiranandani Hospital in Mumbai. The same is the case with people appearing for pre-employment health checks.

Why does the white coat affect blood pressure so much? People are anxious about their health when they go to a doctor's clinic, placing an unrealistic emphasis on the white coat. Dr Joshi calls it a biochemical reaction: "Stress and anxiety lead to a rise in catecholamines (hormones released by adrenal gland in times of stress) which, in turn, leads to an increase in BP."

However, this can be easily neutralised. Dr Misra says persons should be asked to sit quietly for at least five minutes in a chair with their feet on the floor and arms supported at heart level. "Caffeine, exercise and smoking should be avoided at least 30 minutes prior to the measurement," he adds.

The medical advice now is to have at least two-three BP readings before ruling that the pressure is indeed high and starting medication. "The only exception would be if the patient's first-visit BP is very high," says Dr Misra.

The Duke University study had, in fact, said that repeated measurements should be taken at home to get an accurate picture of BP control than a single reading in a doctor's office. "In fact, we now order an ambulatory blood pressure reading for some patients," points out Dr Joshi. The patient has to walk around with a tiny machine that records various readings over a 24-hour period.

WAY TO GO

Got hypertension? It's best to make basic changes in lifestyle

- **FIGHT FLAB** | Weight loss of as little as 4.5kg reduces BP
- **EAT RIGHT** | A diet rich in fruit and vegetables; opt for low-fat dairy products
- **CUT SALT** | Restrict sodium intake to less than 2.4gm per day
- **EXERCISE REGULARLY** | Walk briskly at least 30 minutes a day
- **AVOID ALCOHOL** | The upper limit for men is 30ml of ethanol, or 2 drinks a day. For women, it's one drink
- **QUIT SMOKING**

Source: Ministry of health & family welfare

DASH FOR LIFE: LESSONS FROM ABROAD

In America, Dietary Approaches to Stop Hypertension (DASH diet) has been shown to reduce BP by a few points in just two weeks. The diet seeks to reduce sodium and encourages consumption of foods rich in nutrients (such as potassium, calcium and magnesium). Details on US medical sites.

- A small, steady reduction of sodium in American diet could save up to half a million lives over the next decade, says a new report by experts.
- Since the early 1970s, when Finland launched a campaign to reduce salt intake, individual consumption has dropped by 3,000mg a day, with a decline of 75-80% in death rates from strokes & heart disease, reports NYT.

THE FINNS ARE FITTER