Combating hypertension

Hypertension is a risk factor for a number of serious conditions, including cardiovascular disease, kidney disease and dementia. Yet timely and fairly simple changes to lifestyle can both improve the condition and lower the risk of longer term, life-threatening outcomes.

The number of people affected is huge: up to 60 million adults in the U.S. alone suffer from hypertension. Worldwide, the figure could reach one billion by 2018.

And if the risk of developing it increases with age, it is worth remembering the condition can affect children – particularly the overweight and obese – and, in the form of pre-eclampsia, it can pose a threat to the health of pregnant women and their babies.

Hypertension is not just a problem of affluent societies, said Dr. Phyllis August, Ralph A. Baer Professor of Medical Research, and professor of medicine in obstetrics and gynecology, and of public health, at Weill Cornell Medical College in New York City. It affects millions in the developing world, for example in the subcontinent and the Philippines.

During a visit to WCMC-Q, Dr. August, who is also attending physician at NewYork-Presbyterian Hospital, said risk factors for hypertension include a family history and advancing age: The over-80s have a 90 percent chance of developing the condition.

Research has shown genetics may play a part in the relatively high incidence of hypertension and kidney disease among African-Americans. Her investigations, conducted with colleagues at Weill Cornell and at Columbia University, have identified an individual variability in the production of a protein named Transforming Growth Factor-Beta 1 that might be responsible.

Understanding blood pressure

Dr. August explained that the criteria for determining whether someone has high blood pressure are somewhat arbitrary.” Blood pressure varies considerably, and in general, hypertension may be defined as having a blood pressure at a level that is causing a person to have a greater risk of cardiovascular disease. For most individuals, this level of blood pressure is around 140/90 mm Hg.

And while the focus in people up to about 55 years of age is on diastolic pressure (the second measure, as the heart relaxes), for those over 65, with stiffer vessels, it is more meaningful to look at systolic pressure (the first measure, as the heart pumps blood into the arteries).

“A lot of studies have shown that your chances of getting a complication of hypertension are higher, the higher your systolic blood pressure, if you are over 65,” she said, adding that the middle years, between 55 and 65, seem to be somewhat of a transition stage.

Taking control

The evidence for the benefits of keeping hypertension under control is clear. “Hundreds of thousands of people have been enrolled in clinical trials that demonstrate unequivocally that lowering blood pressure prevents strokes, heart attacks, kidney disease and dementia,” Dr. August said. “Keeping blood pressure normal is key.”

However, since people may not even realize they have elevated blood pressure, persuading them of the value of putting the ‘healthy living message’ into practice is not so easy. As Dr. August noted, “when you have high blood pressure, you don’t necessarily feel sick. So it’s all about preventive medicine, and that’s one of the barriers to effective treatment.”
The advice is straightforward: Eat healthy food, control salt intake, avoid excess alcohol, don’t smoke, and take regular exercise. As a rule, adults should also get their blood pressure checked at least twice a year.

For patients who need more than lifestyle changes, including those with underlying kidney disease or type 2 diabetes, safe and effective medications are widely available, Dr. August added.

**Pregnancy risk**
Derived from the Greek, meaning literally a “bolt of lightning”, eclampsia and its precursor, pre-eclampsia are life-threatening conditions that arise suddenly, usually in the later stages of pregnancy. [For more, click here](https://www.qatar.wcmq.org/)