

## High Blood Pressure: No Time to be Silent!

Heart disease and stroke are the first and third causes of death, respectively, in the United States. Hypertension is the major risk factor for heart disease and stroke<sup>1</sup>. High blood pressure killed nearly 50,000 Americans in 2002 and was listed as a primary or contributing factor in 261,000 deaths that year. The American Heart Association (AHA) estimates that 73 million adults over the age of 20 have hypertension. Thirty percent don't even know they have it! That's why high blood pressure is still called "the silent killer." Of those who know, only 60% have it treated. More than two out of three of those do not have it under control, control meaning less than 140 mmHg over 90 mmHg!<sup>2</sup> By gender, according to Marianne J Legato, MD, professor of clinical medicine Columbia University, only 19% of men and 28% of women with high blood pressure have it under control. Worse yet, the AHA believes that prevalence of hypertension is expected to increase with the aging population, growing obesity epidemic, and rising incidence of metabolic syndrome.

As health professionals with an historical concern for public health and wellness care, the above numbers argue that we chiropractors should be monitoring blood pressure as part of our examinations. When hypertension or pre-hypertension (discussed below) are found, in addition to our endeavors to optimize autonomic tone via structural corrections, making lifestyle and nutraceutical recommendations, or medical referral, are all well within the scope of chiropractic care and responsibility.

### Blood Pressure by the Numbers

Blood pressure is typically expressed as two numbers, one over the other, and is measured in millimeters of mercury (noted as mmHg). The top or first number is the systolic blood pressure, the pressure used when the heart beats. The bottom or second number, the diastolic blood pressure, is the pressure that exists in the arteries between heartbeats. A blood pressure reading of less than 120 mmHg systolic and less than 80 mmHg diastolic (120/80) is considered "normal". Optimal may be as low as 110/70 mmHg.

If the blood pressure is between 120/80 mmHg and 139/89 mmHg it is defined as *pre-hypertension*. Patients with pre-hypertension are more likely to develop hypertension in the future and have increased risk factors for cardiovascular disease. Pre-hypertension therefore deserves attention, especially if other risk factors like metabolic syndrome or diabetes are present.

A blood pressure level of 140/90 mmHg or more (either number) is considered high blood pressure. *Isolated systolic hypertension* (ISH), where systolic is greater than 140 mmHg but diastolic is under 90 mmHg, is the most common form of high blood pressure in older Americans.

Blood pressures of 140 -159 systolic and/or 90 - 99 diastolic are called *stage 1 hypertension*. Blood pressures where either number is greater than 159 / 100, is *stage II hypertension* and requires medical attention. In stage II hypertension usually two prescription medications to maintain numbers of less than 140/85.<sup>3</sup>

The cause of approximately 90 to 95 percent of all hypertension isn't known. This type of hypertension is called *primary* or *essential* high blood pressure. When the cause is known, it's called *secondary* hypertension. While there is no cure for essential hypertension, it is easily detected and is controllable with lifestyle changes and nutritional supplementation, and when necessary, medications.

As an example of the import of even moderately successful interventions, in prospective observational studies, a long-term difference of 5-6 mm Hg in usual diastolic blood pressure is associated with about 35-40% less stroke and 20-25% less coronary heart disease (CHD).<sup>4</sup>

### Lowering Blood Pressure Naturally

The first step is always lifestyle changes such as smoking cessation, moderation in caffeine and alcohol, regular exercise, recreation and sleep, and a low sodium (<2 gm/day), potassium rich, high fruit and vegetable diet.

Fortunately there are also many OTC nutraceuticals that show potential in significantly lowering blood pressure.<sup>5</sup> These include phytonutrients (grape seed extract, cocoa, green tea extracts, quercetin, hawthorne, hibiscus tea, tomato extracts, soy isoflavones), zoonutrients (milk and whey peptides and even peptides formed in fried eggs!) and fats (olive oil, flax oil, fish oil), though to a lesser degree.<sup>6-16</sup>

John Zhang, MD, PhD of Logan Chiropractic College has authored two human studies on physician strength nutraceuticals and pre-hypertension and hypertension. These studies included testing a multi-

ingredient phytonutrient powdered drink mix, a multi-ingredient dairy whey based zoonutrient powdered drink mix, and the two nutraceutical powders together. In 90 days, the phytonutrient formula lowered blood systolic pressure 12.4 mmHg and the diastolic 7.1 mmHg. The zoonutrient formula lowered blood pressure 13.4 and 8.2, respectively. The combined group lowered blood pressure 10.9 and 13.9, systolic and diastolic respectively. These preliminary studies show an average decrease in systolic blood pressure of 12.6 points and a decrease in diastolic blood pressure of 9.7. These results match the [Dietary Approach to Stop Hypertension Diet](#) plus low sodium diet combined (DASH II diet) and the effect of any one commonly prescribed blood pressure medication.<sup>17,18</sup> Abstract presenting the two latest Logan Chiropractic College studies with charts are referenced below.<sup>19,20</sup>

On its website, the American Heart Association provides the "Pressure Health Risk Calculator" which you may find a useful educational and motivational tool for your practice. See [http://www.americanheart.org/beatyourrisk/en\\_US/main.html](http://www.americanheart.org/beatyourrisk/en_US/main.html)

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