

THE HEART has always been thought to be responsible for pumping some eight thousand liters of blood per day at rest and much more during activity. This has been compared to the lifting of approximately 100 pounds one mile high! Blood is five times more viscous than water, meaning it is thicker and heavier. The strength of the heart is evidenced by its function and the fact that the left ventricle can squirt blood thirty feet across a room. All of this blood travels through millions of capillaries, some with diameters smaller than the red blood cells themselves! From Galileo it was derived that the heart was solely responsible for this achievement. Now, some researchers have described an autonomic vortex movement of the blood, implying that the blood and its

contents create a type
of jet stream of
its own in
addition to

the pump action of the heart. In either case, for there to be life, blood must move through its designated channels.

Blood pressure is the pressure exerted by circulating blood upon the walls of blood vessels.

When this pressure becomes persistently elevated, slow but steady damage ensues.

As we learned last month from our nation's 32nd president, Franklin Delano Roosevelt, hypertension is a disease that, while hidden from immediate notice, stealthily undermines health. Usually, no obvious symptoms are experienced for the first 10 to 20 years, but it strains the heart and damages the arteries. Hypertension is a major cause of heart failure, vascular disease, renal failure, and stroke.

As highlighted last month, blood pressure readings considered normal and health promoting are 90/60-120/80. Clinical hypertension is diagnosed at 140/90. One in every three American adults is estimated to have hypertension. In Germany, 55% of the adult population has high blood pressure.

Several factors have the potential to alter blood pressure. Some we can't do anything about such as age, pre-existing disease, or ethnicity. Others are

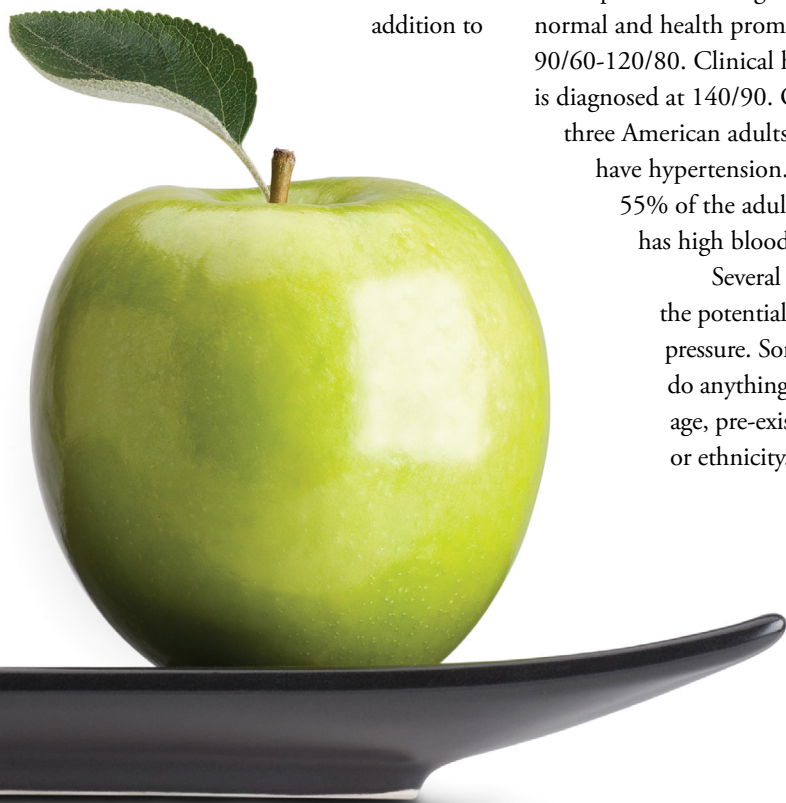
lifestyle factors that, when changed, have the potential of dramatically lowering blood pressure. Some of these factors include smoking, lack of physical activity, long-lasting stress, being overweight,

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mineral imbalance, too much sodium, or not enough potassium. Some of these may seem like common sense, but it wasn't always so obvious.

In 1948, three years after Roosevelt's death, "the Framingham Heart Study was launched, and the lives and deaths of 5,209 volunteers from Framingham, Massachusetts, taught the rest of the world just which behaviors and genetic traits put them at risk."¹ The study has been continuously going on for over 60 years, with the third generation now being studied. The "understanding that blood pressure, blood triglyceride and cholesterol levels, age, and gender are major risk factors for cardiovascular disease came from Framingham. In the 1960s the Framingham Study demonstrated that cigarette smoking, cholesterol level, and blood pressure correlate with an increased risk for heart disease and physical activity was found to reduce that risk. In the 1970s they connected high blood pressure to an increased risk of stroke and found that menopause increased the risk of heart disease."²

Sleep deprivation has also been found to "acutely increase blood



pressure and sympathetic nervous system activity. Prolonged short sleep durations could lead to hypertension.”³

Since hypertension is so affected by lifestyle, it has been found to be very responsive to lifestyle changes. These lifestyle changes include quitting smoking, being physically active, and losing weight. Exercise has been found

PROLONGED SHORT SLEEP DURATIONS COULD LEAD TO HYPERTENSION.

to be just as effective as some blood pressure medications. It takes about one to three months to see the effect.

Hypertension and being overweight tend to go hand in hand. Abdominal obesity has the greatest influence on the development of hypertension. Scientists “are reporting discovery of 20 new hormones and other substances not previously known to be secreted into the blood by human fat cells and verification that fat secretes dozens of hormones and other chemical messengers.”⁴ Hormones released from fat cells have been found to interfere with vasodilation; meaning blood vessels would not be flexible or able to dilate.

The DASH diet was developed by the US National Institutes of Health to lower blood pressure without medication. DASH stands for Dietary Approach to Stop Hypertension. It emphasizes eating more whole grains, fruits, vegetables, nuts and fiber rich foods, eating less red meat, sugar, saturated fat, cholesterol, and sodium rich foods. The key nutrients DASH encourages are calcium, magnesium, and potassium. These act synergistically in the process of vasodilation.

In one study, 459 participants were randomly divided to consume

one of three diets for 8 weeks. All three diets contained the same amount of sodium. Those on the DASH diet saw a decrease in systolic blood pressure of 11 points. “Overall, blood pressure in the DASH group fell from 146/85 to 134/82 mm Hg.”⁵

Some have taken the DASH diet a step further to eliminate meat completely. Seventh-day Adventist vegetarians have significantly less hypertension and lower blood pressure compared with omnivores, independent of obesity and

sodium intake. Researchers in Australia had subjects consume a vegetarian diet for 6 weeks. Both systolic and diastolic blood pressure decreased. When placed back on their old diets, blood pressure promptly went back up. Not one part of the vegetarian diet is responsible. Even without restricting salt intake, and before any substantial weight change, a vegetarian diet can lower blood pressure, causing the sodium–potassium ratio to improve. The adequate intake levels for potassium are 4,700 mg. This is over twice as much as the recommended daily sodium limit. The ratio of the two is apparently very significant. Americans tend to reverse the ratio. Some statistics say that the average American omnivore consumes five times more sodium than potassium. Eating a vegetable-based diet is an effective way of achieving a healthy ratio since vegetables naturally have a good supply of potassium.

Neil Barnard, MD, president and founder of the Physicians Committee for Responsible Medicine says that a person with hypertension who has not become a vegetarian is “really trying to fight their condition with one arm tied behind their back. It’s the diet itself, and it is clearly the diet of choice for people who want to get their blood pressure under control.”⁶

Scripture provides an excellent example of dealing with heightened pressure in the stories of Daniel and his companions. Under extreme pressure to conform and compromise, they repeatedly chose to stand true to their values and convictions, making them stronger for the next set of challenging circumstances. In the midst of Babylon, they maintained the life current of the King of kings within. May that be our experience.

¹ Greg Miller, “The Relentless Search for Drugs to Treat Hypertension,” Geiger Count Report, 12/30/10, <https://sites.google.com/a/geigercount.com/geigercountreport/report---hypertension>.

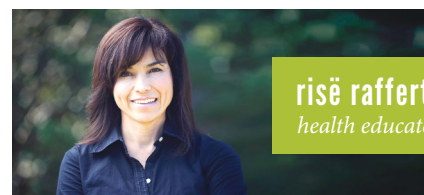
² Ibid.

³ JE Gangswisch, HB Heymsfield, “Short sleep duration as a risk factor for hypertension: analyses of the first National Health and Nutrition Examination Survey,” PubMed.gov, 5/06, <http://www.ncbi.nlm.nih.gov/pubmed/16585410>.

⁴ “Research finds fat cells can secrete hormones,” News Medical, 10/14/10. <http://www.acs.org/content/acs/en/pressroom/presspac/2010/acs-presspac-october-13-2010/new-evidence-that-fat-cells-are-not-just-dormant-storage-depots-for-calories.html>.

⁵ TJ Moore, PR Conlin, “DASH (Dietary Approaches to Stop Hypertension) diet is effective treatment for stage 1 isolated systolic hypertension,” 8/01, <http://www.ncbi.nlm.nih.gov/pubmed/11509468>.

⁶ “Veggie Diet May Lower High Blood Pressure,” PreventDisease.com, <http://preventdisease.com/home/weeklywellness204.shtml>.



Risë has been writing on various health subjects for over 20 years. She has inspired many through her research and down-to-earth writing and speaking style. She believes that healthy living is intimately tied to happiness and wholeness.