

## Section 1: The 3 W's – What, Who and Why

**The What:** Hypertension simply defined is “a condition in which the force of blood against the artery walls is too high.”<sup>1</sup> According to the JNC 7<sup>2</sup> there are 4 categories that are used for classification purposes: Normal, Prehypertension, Hypertension – Stage 1 and Hypertension – Stage 2.

When you measure hypertension it is recorded as **Systolic** (blood pressure when the heart beats while pumping blood) **over Diastolic** (blood pressure when the heart is at rest between beats).

Category	Systolic BP mmHG/Diastolic BP mmHG
Normal	<120 SBP and <80 DBP
Prehypertension	120-139 SBP or 80-89 DBP
Hypertension – Stage 1	140-159 SBP or 90-99 DBP
Hypertension – Stage 2	160> SBP or 100> DBP

**The Who:** 1 in 3 Americans are affected by hypertension<sup>3</sup> - a disease that does not discriminate against age, race or gender.

**The Why:** Why is hypertension so important for us to educate our patients about? Simply put, it will save lives. Hypertension can lead to an increased risk of heart attack, heart failure, stroke and so much more if left undiagnosed.

## Section 2: What You Should Know

Hypertension can often be asymptomatic with patients thinking the visual symptoms they are experiencing – i.e. visual aberrations, such as occasional tunnel vision or that pesky reoccurring subconjunctival hemorrhage – are related to normal changes in their prescription or the possibility of allergy or dry eyes and not their blood pressure.

Patients are complex in nature when it comes to discussing their medical history – some will tell you that they currently aren't suffering from hypertension even though they take medication(s) for it (it's like the common cold – they only had a touch of it and then it magically disappeared), others will admit to having hypertension that is either controlled or in better control than it used to be, others still will admit to having hypertension but cannot afford their medications or they simply forget to take them and some won't even know they have it.

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<sup>1</sup> [www.mayoclinic.org/diseases-conditions/high-blood-pressure/basics/definition/con-20019580](http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/basics/definition/con-20019580)

<sup>2</sup> Reference Card from the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)

<sup>3</sup> <http://www.nhlbi.nih.gov/news/spotlight/fact-sheet/systolic-blood-pressure-intervention-trial-sprint-overview> - Background

As paraoptometrics, we interact with our patients before and after they see the optometrist – we gather the patient history, chief complaints and most importantly their vital signs – making us a vital (pardon the pun) part of the examination process to not only the patient but the optometrist as well.

Recently, the initial results of a monumental study conducted by the National Heart, Lung, and Blood Institute, a division of the National Institute of Health, called the ‘Systolic Blood Pressure Intervention Trial’ or SPRINT were published. Those initial results have begun to confirm what had become a “general consensus in the medical field that reducing elevated systolic blood pressure benefits patients by preventing cardiovascular death and complications”<sup>4</sup>

We, as paraoptometrics, are in a position to help educate our patients on why keeping their blood pressure under control can not only help to save their vision but that it can potentially save their life as well.

### Section 3: What Your Patients Should Know

- Keeping their blood pressure under control – whether it be through a combination of medications or via other alternative routes – can ultimately **SAVE THEIR LIFE**.
- Having a systolic pressure reading of <120 mmHG can reduce their risk of heart attacks, heart failure, and stroke by 30% and lower their risk of death by almost 25%<sup>5</sup>. Keep in mind that certain health conditions may have an effect on the target areas for some patients.
- Annual dilated eye exams by an optometrist and in addition to visits to their primary care providers or cardiologists are key to helping to achieve the above said goal and keeping their vision the best that it can be.

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<sup>4</sup> <http://www.nhlbi.nih.gov/news/spotlight/fact-sheet/systolic-blood-pressure-intervention-trial-sprint-overview> - Background

<sup>5</sup> <http://www.nhlbi.nih.gov/news/spotlight/fact-sheet/systolic-blood-pressure-intervention-trial-sprint-overview> - Initial Study Results