

## Module 1 Lesson 2

### Transcript

Hey, TNSers. Today, we're going to get to the medical side of things, and get to know more about blood pressure and heart rate. While most of you probably won't be taking these readings in your office, clients will likely come to you with their vitals from their doctor's office, and it's important to understand what these numbers mean. They can be important tools in personalizing a client's lifestyle plan.

Today, we're going to cover factors that affect heart rate and what's considered normal, high and low. The two different numbers in a blood pressure reading, what they are and what they mean, including the stages of hypertension. How you can use these numbers to guide your recommendations to clients. People are always tossing their blood pressure numbers at me. They expect that I know what the numbers mean, and with good reason. It's one of the most common things that you do when you go to the doctor, right. And most healthcare providers get basic bootcamp training.

I'm giving you the 411 today in how to use it in your role. You walk in the exam room at your doctor's, and the first thing that the staff do are, they take your weight, you remove every piece of jewelry and suck in your stomach, right. They take your temperature, you're glad it's oral. They take your pulse, one Mississippi, two Mississippi. They take your blood pressure, you take long, deep breaths and think calming thoughts. Then, you wait for, what seems like five hours. You try not to fall asleep, by making a shopping list. And finally, they send in the doctor. And the doctor goes straight to your chest and back to listen to your precious heart.

When it comes to your pulse, or your heart rate, a normal adult resting heart rate is between 60 to 100 beats per minute. Anything lower than 60 beats per minute is typically considered a low heart rate, also known as bradycardia. A heart rate over 100 is called tachycardia. There are many things that can influence your heart rate, including age, fitness and activity levels, being a smoker, having cardiovascular disease, high cholesterol or diabetes, air temperature, body positions, standing up or lying down, for example, emotions, body size, and medications. Athletes and people who are physically active tend to have lower heart rates, which can be healthy and totally normal. A bradycardia in a non-athlete, or a tachycardia, that is a heart rate lower than 60 or a heart rate over 100, may be of medical concern.

Moving on to your blood pressure. We all know we want a nice, low blood pressure. A low blood pressure means that your heart is calm, efficient, healthy. Your blood is just pumping through your body effortlessly. High blood pressure means there is a problem. Your heart is working too hard. It isn't efficient, and this puts you at risk. You get two numbers when your blood pressure is taken. The numerator number, the first number, in case you forgot, is your systolic blood pressure. It tells us how much pressure is in your heart when your heart contracts. It's how forcefully the blood is being pushed out of your heart. The second number, the denominator number, is the diastolic number, which measures the pressure in your arteries when your heart relaxes between beats.

Your heart is actually a muscle, like your biceps and your quads. You might want to remind clients of that sometimes. While your ticker can't do dumbbell curls or lateral raises, it gets bigger and stronger with exercise. Well, of course, one of the reasons exercise is so good for us. It makes sense. Circulation from movement and oxygen from breathing strengthen your heart and keep it strong. Things like inactivity and extra fat mass weaken and damage your heart.

When it comes to your blood pressure, your goal is to be below 120 over 80. Your blood pressure is considered elevated if your systolic is between 120 and 129 and your diastolic is below 80. Here, you're not considered hypertensive yet, and, usually, medications are not prescribed. But it is the range where you are put on a heart-healthy or a DASH diet, and told to change your ways through diet and exercise. When you creep into the 130 to 139 systolic and 80 to 89 diastolic range, you get the news that you're in the first phase of hypertension. Here, you may get a couple of months to change your ways, and follow up with another visit to see if the numbers have improved. Or, you may be put on cardiac medications, which I'll talk about in another lesson. Follow-up care is usually every few months. And yes, hypertension is reversible. But, you may or may not get meds to help you go in that right direction.

You have full-blown stage 2 hypertension if your systolic is over 140 and diastolic surpasses 90. Your behavior changes are as important as ever. But more likely than not, you'll not be given much wiggle room, and will be put on cardiac medications. A blood pressure greater than 180 over 120 is considered a hypertensive crisis, and you should go to the emergency room. Likely, you'll see other symptoms, such as chest pain, shortness of breath, visual changes, dizziness, and maybe a headache.

If you have a client with elevated blood pressure, or a strong family risk, make sure your plan includes these important things. Have your client reduce their sodium intake immediately. Ask about salt use, of course. Processed foods. Take out dining out frequency and convenience foods. Collaborate to find alternative choices. They exist. And help to make good decisions by using herbs and spices instead of the salt shaker. Asking waiters to request no additional salt in the foods from restaurants. These things are really important. Swapping packaged snacks for fresh stuff. I mean, you get the gist.

Take a look at how much added sugar a client is consuming as well. Most people realize there's a connection between sodium and blood pressure, but much less people know that there's a connection between added sugar and your heart. You can refer back to the handouts on sugar, from the first TNS course. Don't forget this. Super important. Also, remember this. Reduce caffeine and alcohol. Both are hard on the ticker and non-nutritive. So, again, come up with alternatives, like decaf coffee, herbal tea, mocktails, and old-fashioned H<sub>2</sub>O. The key here, for most clients, is to reduce, not necessarily eliminate completely.

Exercise. Super important. Incorporating walking into each and every single day, of course, in addition to whatever other exercise, is found to be super beneficial. Weekend warriors are not as successful at managing their blood pressure as daily walkers. Absolutely encourage other exercise and movement, and avoid sedentary activities as much as possible.

Of course, manage stress. You know, cortisol is hard on the heart. Stress less, you know, one of my favorite pillars, with blood pressure lowering activities, like breathing and meditation and active relaxation. Quit smoking, of course. I hope there are no smokers out there, but I know some of you still exist. We have to quit smoking. Quit vaping. Quit recreational marijuana use. Inhalants are not cardioprotective. They are damaging. So, have your clients reduce and refrain as much as possible.

Okay, so, let's recap what we just learned. A normal adult resting heart rate is between 60 to 100 beats per minute. A heart rate lower than 60 beats per minute is considered bradycardia. A heart rate over 100 is called tachycardia. It's normal for athletes and people who are very active to have lower heart rates, but bradycardia, as well as tachycardia, can be a cause for concern.

When it comes to blood pressure, the top number is your systolic blood pressure, telling us how forcefully blood is being pushed out of your heart. The bottom number is the diastolic blood

pressure, measuring the pressure in your arteries when your heart relaxes between beats. Below 120 over 80 is the goal. Hypertension is recognized at 130 over 80 and above. If a client comes to you with high blood pressure, focus on diet and lifestyle changes that will help lower blood pressure. High blood pressure can be reversible, which is great, through simple behavior change. You have a big role here.

There you have it. Heart rate and blood pressure 101. I will see you in the next lesson.