

Dear Michaela,

Thank you for trusting CONNEQT to support your cardiovascular health journey. By using CONNEQT Pulse, you've taken a vital step in understanding your arterial health and uncovering hidden cardiovascular risks before they become problems.

Unlike traditional blood pressure monitors, the CONNEQT Pulse is the only at-home solution that measures both central and brachial pressures while leveraging Pulse Wave Analysis (PWA) to assess arterial stiffness and circulatory efficiency—offering a deeper look at your cardiovascular function and long-term heart health:

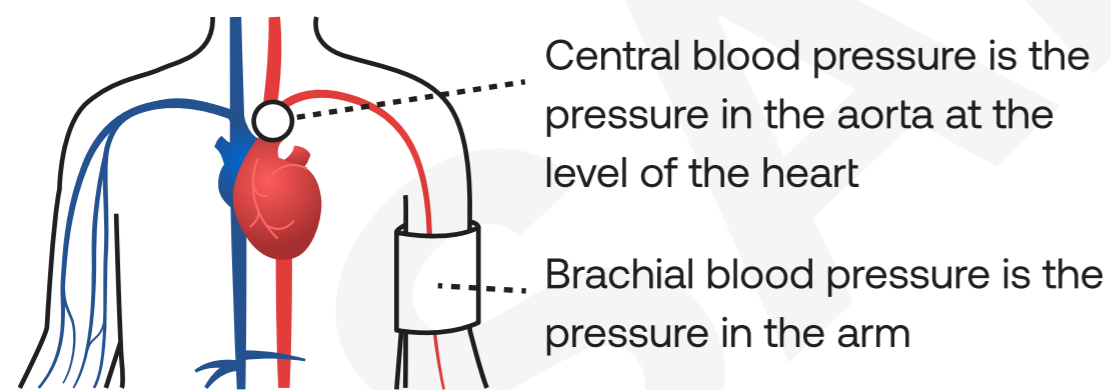
- Central Blood Pressure: Central Blood Pressure (SYS), Central Pulse Pressure, and Pulse Pressure Amplification
- Arterial Stiffness: Augmentation Pressure and Augmentation Index
- Oxygen demand at the level of the heart: Subendocardial Viability Ratio

This report is designed to empower you with actionable insights—helping you track trends, understand cardiovascular risks, and take proactive steps toward optimizing your heart health. It also provides a breakdown of each parameter, along with a summary for your physician, if needed.

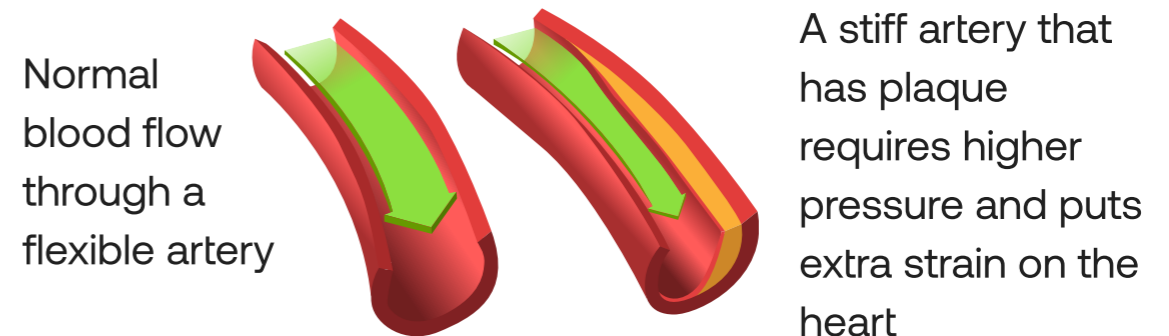
Welcome to the future of Arterial Intelligence™—where deeper insights lead to better health outcomes.

Why are central blood pressure and arterial stiffness important?

Central blood pressure (or CBP) is the pressure in the ascending aorta, the large artery adjacent to the heart. It is the pressure exerted on the target organs of the body such as the brain, kidneys, and the heart itself. Central blood pressure is considered a more direct indicator of cardiovascular risk than brachial blood pressure. It is important because the higher the CBP, the greater the cardiovascular risk.



Arterial stiffness is a process where the flexible arteries of the body lose their elasticity because of age, atherosclerosis (or plaque), diabetes, obesity, among other causes. Arterial stiffness is important because stiff arteries require the heart to work harder and increases the risk of cardiovascular disease such as hypertension, heart attacks, and stroke.



How the Pulse can be used as part of a comprehensive cardiovascular assessment

Under your physician's guidance, several tests are available to understand your cardiovascular risk for heart diseases such as hypertension and coronary artery disease, and how central pressure and arterial stiffness can lead to conditions like kidney disease, vascular dementia, and sexual dysfunction. These include:

Coronary Artery Disease and Atherosclerosis Detection

- Coronary artery calcium score
- Artificial intelligence coronary plaque phenotyping
- Carotid artery ultrasound

Advanced Cholesterol and Metabolic Profiling

- Lipid particle size Lp(a) hsCRP apoB
- Insulin resistance HbA1c
- Homocysteine Testosterone Estrogen

Additional information can be found at: www.conneqthealth.com

CONNNECT is privileged to support your cardiovascular health and is confident that you will find benefit with using the Pulse.

Sincerely,

Your Cardiovascular Team at CONNEQT Health

Cardiology Report (Oct 2024 - Jan 2025)

General Details

Name **Michaela Johnson** Sex **Female**
 DOB **08-Dec-1972 (52 yrs)**

Cardiovascular Risk Profile - Arterial Intelligence™

Low Cardiovascular Risk	Intermediate Cardiovascular Risk	High Cardiovascular Risk
All measurements are within the normal range.	1 or more measurements are above the normal range.	1 or more measurements are above thresholds.
<input type="checkbox"/> Central Blood Pressure (SYS) is within or below normal range for your age. <input type="checkbox"/> Central Pulse Pressure is within or below normal range for your age. <input type="checkbox"/> Augmentation Pressure and Augmentation Index are within or below normal range for your age. <input type="checkbox"/> Pulse Pressure Amplification is $\geq 130\%$.	<input checked="" type="checkbox"/> Central Blood Pressure (SYS) is above normal range for your age. <input checked="" type="checkbox"/> Central Pulse Pressure is above normal range for your age. <input type="checkbox"/> Augmentation Pressure or Augmentation Index are above normal range for your age.	<input type="checkbox"/> Central Blood Pressure (SYS) is above a threshold of >130 mmHg. <input type="checkbox"/> Central Pulse Pressure is above a threshold of >50 mmHg. <input checked="" type="checkbox"/> Augmentation Pressure is >10 mmHg above normal or Augmentation Index is $>10\%$ above the normal range for your age. <input checked="" type="checkbox"/> Pulse Pressure Amplification is $<130\%$.

Actions for Elevated Risk Levels

Measurements in the high-risk category (red) highlight areas that need attention, while those in the intermediate risk category (yellow) indicate factors that could benefit from early intervention to help maintain cardiovascular health and reduce the likelihood of conditions like hypertension or coronary artery disease. Your healthcare provider may suggest further testing to explore how central pressure and arterial stiffness impact your cardiovascular health (see page 1).

<p>Yellow Zone: Intermediate Cardiovascular Risk</p> <p>Focus on Lifestyle Changes</p> <ul style="list-style-type: none"> Increase physical activity (e.g., 150 minutes of moderate exercise per week). Adopt a heart-healthy diet rich in fruits, vegetables, whole grains, and lean proteins. Reduce sodium intake to help manage blood pressure. Maintain a healthy weight by balancing calorie intake and energy expenditure. <p>Monitor Your Cardiovascular Health Regularly</p> <ul style="list-style-type: none"> Track blood pressure and other biomarkers regularly to spot changes early. Schedule routine follow-ups with your healthcare provider. <p>Consider Preventive Support & Advanced Testing</p> <ul style="list-style-type: none"> Discuss potential therapies with your physician such as medications to lower cholesterol or blood pressure, and tests such as coronary artery calcium score, lipid and metabolic profiling (page 1). 	<p>Red Zone: High Cardiovascular Risk</p> <p>Seek Medical Advice</p> <ul style="list-style-type: none"> Consult a physician to review abnormal measurements and follow up with a specialist as needed for additional tests. <p>Understand Your Cardiovascular Risk With Advanced Testing</p> <ul style="list-style-type: none"> Discuss with your physician tests such as coronary artery calcium score or carotid artery ultrasound to detect plaque and better understand the root cause of your elevated risk. <p>Start Treatment</p> <ul style="list-style-type: none"> If prescribed, adhere to medical therapy for managing your cholesterol, blood pressure, and other CV risk factors. <p>Implement Targeted Changes</p> <ul style="list-style-type: none"> Work with a nutritionist or fitness specialist to optimize your diet and exercise plan. Quit smoking and limit alcohol consumption.
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Summary

Name **Michaela Johnson** Sex **Female**
 DOB **08-Dec-1972 (52 yrs)**

Parameter	Average**	Classification	Change vs First Report	Normal Range
Central Blood Pressure (SYS)	129 mmHg	Above Range	↓ 2	99-126*
Central Pulse Pressure	48 mmHg	Above Range	↓ 1	27-47*
Pulse Pressure Amplification	128 %		0	≥130
Brachial Blood Pressure (SYS/DIA)	135/82 mmHg	HTN Stage 1	↓ 12/ ↓ 7	<120/<80
Augmentation Pressure	29 mmHg	Above Range	↓ 8	5.2-17.8*
Augmentation Index	32 %	Within Range	↓ 3	20.7-43.7*
Subendocardial Viability Ratio	104 %	Below Range	↑ 6	136-187

*Normal ranges are based on the ACCT Trial of 10,000 individuals with pulse wave analysis measurements.

**These measurements were captured using the Pulse powered by SphygmoCor® technology.

Results & Clinical Interpretation

Measurement	Central Blood Pressure	Central Pulse Pressure	Pulse Pressure Amplification	Augmentation Pressure	Augmentation Index
Threshold	>130 mmHg	>50 mmHg	<130 %	Each 10 mmHg increase in AP	Each 10 % increase in Alx
Risk of CV Events	3 times increased risk of CV events*	2-3 times increased risk of CV events*	2-3 times increased risk of CV events*	Increases the risk of CV events* by 30%	Increases the risk of CV events* by 35-40%

*CV events are defined as a myocardial infarction, coronary revascularization, stroke, heart failure, or CV mortality

A 4-mmHg reduction in central pressure can lower CV risk by 20%. Reductions in arterial stiffness have been shown with ACE-inhibitors, calcium channel blockers, statins, PCSK9 inhibitors, and SGLT2 inhibitors.

Cardiovascular Risk Treatment Considerations

Coronary Artery Disease and Atherosclerosis Detection

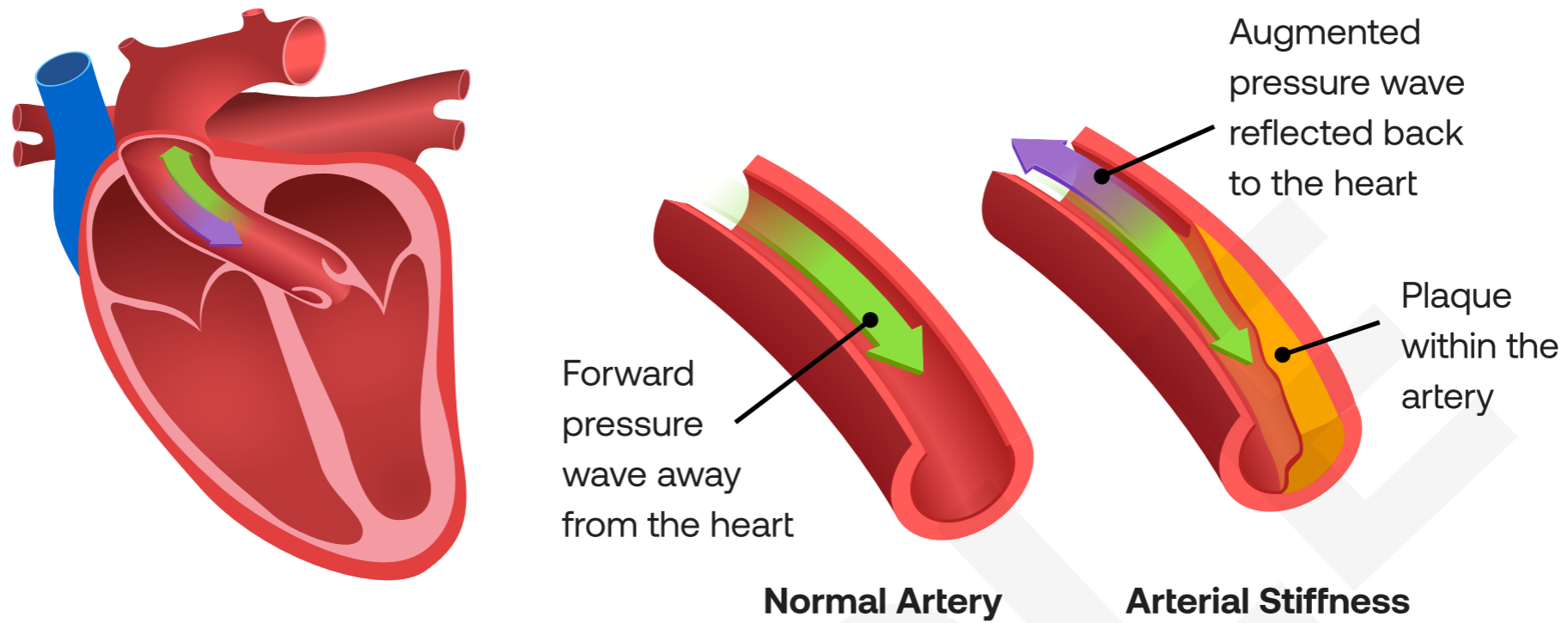
- Coronary artery calcium score
- Artificial intelligence coronary plaque phenotyping
- Carotid artery ultrasound

Advanced Cholesterol and Metabolic Profiling

- Lipid particle size Lp(a) hsCRP apoB
- Insulin resistance HbA1c
- Homocysteine Testosterone Estrogen

What is Arterial Stiffness?

Arterial stiffness is when the arteries of the body become less flexible and can't expand or relax as easily in response to pressure changes. Like a straw that has become stiff or smaller in size, it takes more effort to push air through it.

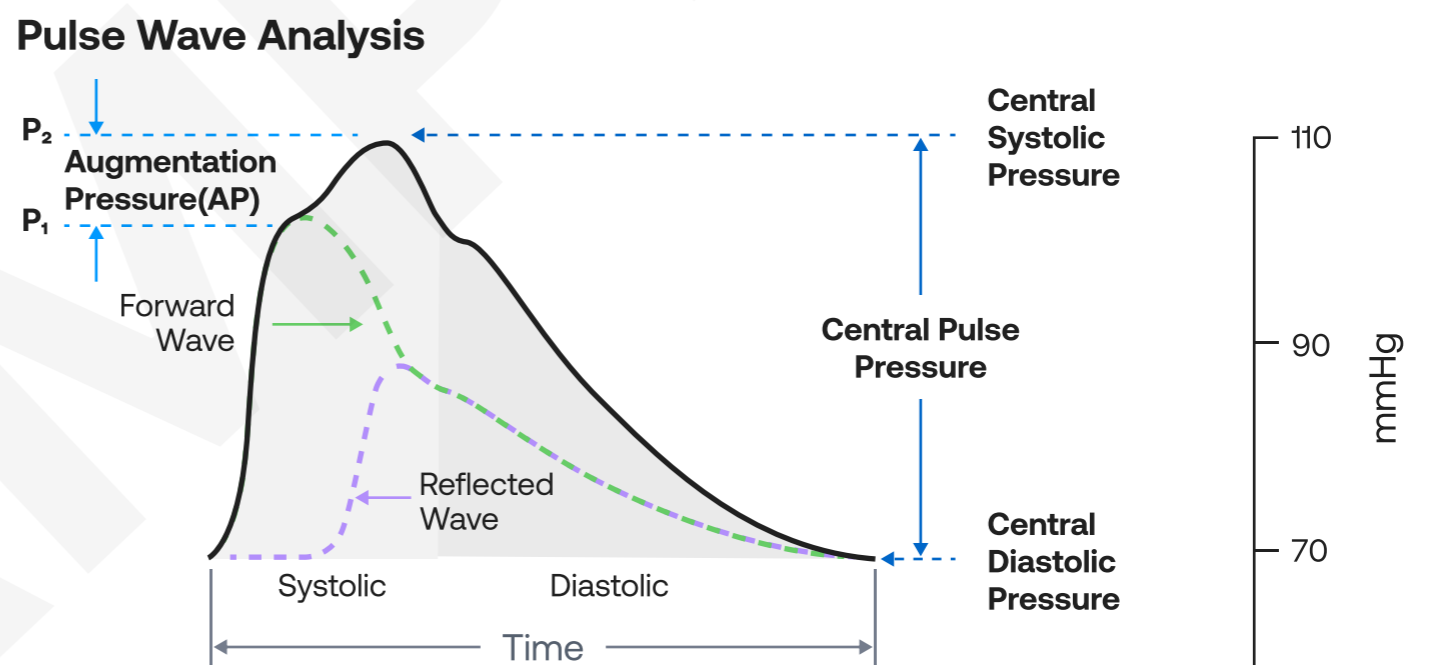


How is Arterial Stiffness Measured with the Pulse?

When your heart pumps blood through your arteries, it creates a pressure wave. In healthy arteries, this pressure wave flows forward and smoothly (green arrow). In stiffer arteries part of the wave reflects back toward the heart (purple arrow). This reflected wave creates an added pressure, known as Augmentation Pressure (AP) and Augmentation Index (AIx), making your heart work harder to pump blood.

Several large clinical trials have identified that arterial stiffness with a high AP and AIx is associated with a greater cardiovascular risk of a heart attack, stroke, heart failure, and kidney failure.

Developed through decades of scientific research, Pulse Wave Analysis (PWA) is recognized as the gold standard for assessing arterial stiffness. CONNEQT Pulse measures arterial stiffness non-invasively by analyzing the central blood pressure waveform, providing deeper insights into cardiovascular health.



Vascular Aging – Are Your Arteries Aging Faster than Normal?

We've known that arteries age along a normal course of time. What we now know is that some people's arteries age normally, some people's arteries age faster (known as accelerated vascular aging), and some people's arteries age slowly (known as delayed vascular aging).

Accelerated vascular aging can lead to arterial stiffness and cardiovascular disease that occurs earlier at a younger age.

Delayed vascular aging is a healthier cardiovascular system over a longer period of time.

Measuring arterial stiffness with the CONNEQT Pulse can identify vascular aging. Knowing the health and stiffness of your arteries is an important step in understanding your arterial health and helps to inform what you can do to lower your cardiovascular risk (see page 1).

Learn more about Arterial Stiffness on www.conneqthealth.com.

Central blood pressure (CBP) is the pressure in the aorta (the main artery where blood is pumped directly from the heart). It reflects the maximum pressure faced by your heart and major organs. This can differ by up to 40 mmHg from the pressure measured at your arm (brachial blood pressure).

The Pulse captures central blood pressure (CBP) during the second inflation using pulse wave analysis (PWA), powered by SphygmoCor® technology. It analyzes pressure waveforms from your upper arm to non-invasively estimate central pressure.

What Do My Results Mean?

Central Blood Pressure (SYS) Intermediate CV Risk

Average **129 mmHg**

Below Range

Within Range

Above Range

*Ranges are based on the Anglo-Cardiff Collaborative Trial (ACCT) Study

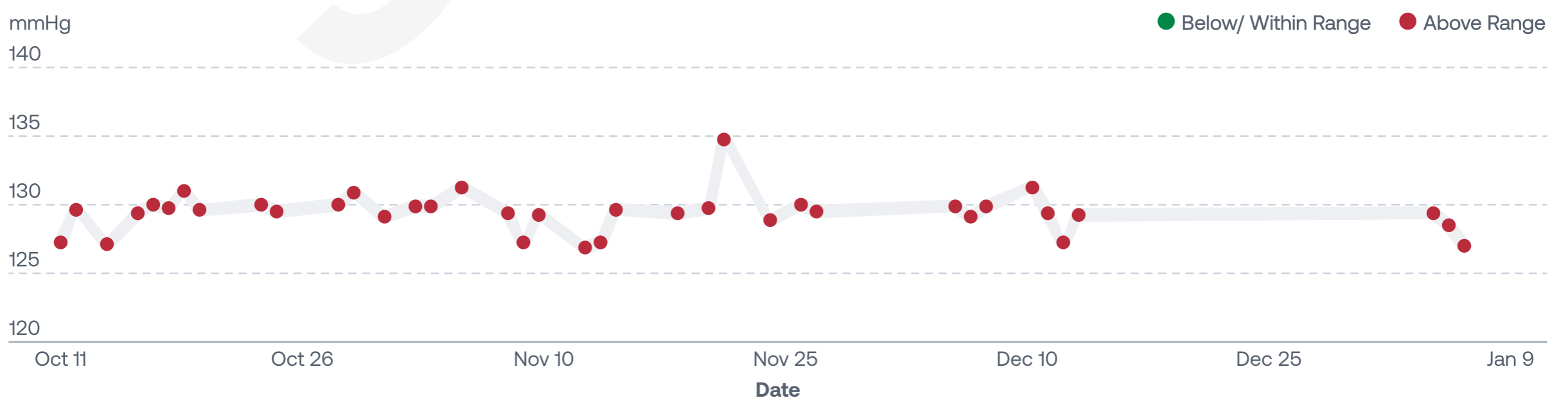
An above range CBP indicates you have central hypertension and an increased risk of cardiovascular disease

What this means is that high central pressures cause a greater strain and load on the heart. Elevated central pressures are associated with hypertension and arterial stiffness and increases the risk of plaque formation and coronary artery disease

Each 10 mmHg increase in central pressure above normal is associated with a 16% increased risk of a heart attack or stroke

It is important to discuss these readings with your physician for tests and treatments that can be done to lower your cardiovascular risk (see page 1). [Learn more.](#)

Central Blood Pressure Trend



Central pulse pressure (CPP) is the difference between central systolic and central diastolic pressures. It reflects the pressure the heart generates to pump blood to major organs like the brain, heart, and kidneys.

CPP is calculated from the central blood pressure waveform captured by the Pulse during the second part of the reading. It uses pulse wave analysis (PWA), powered by SphygmoCor[®] technology, to estimate central systolic and diastolic pressures and determine their difference.

What Do My Results Mean?

Central Pulse Pressure Intermediate CV Risk

Average **48 mmHg**

Below Range

Within Range

Above Range

*Ranges are based on the Anglo-Cardiff Collaborative Trial (ACCT) Study

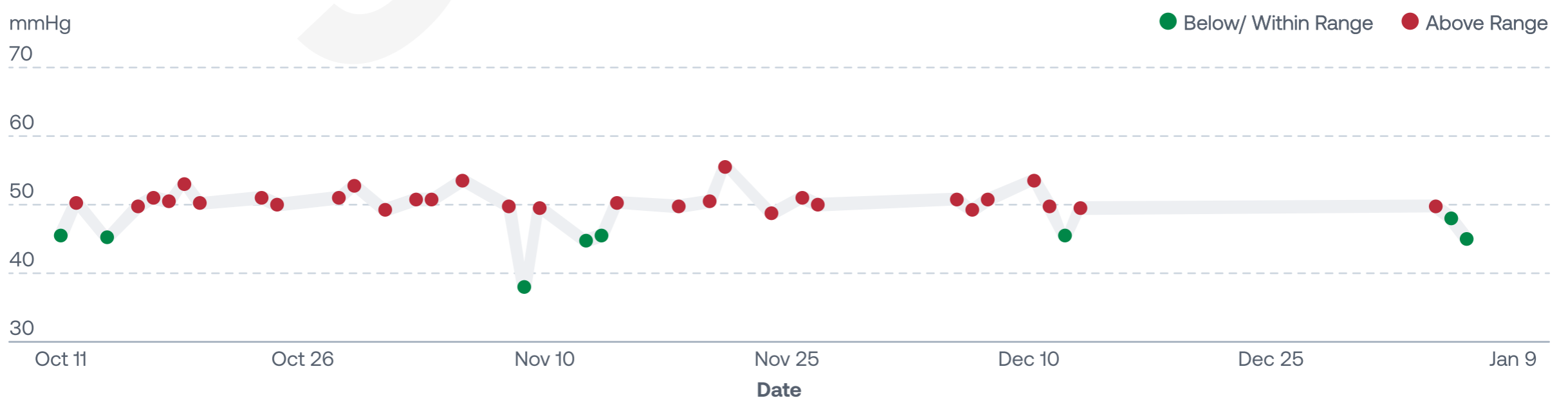
An above range CPP indicates that your central pulse pressure is high and reflects an elevated risk of cardiovascular disease.

What this means is that a high central pulse pressure causes greater strain and load on the heart. An elevated CPP is associated with arterial stiffness and stress on the walls of the arteries, increasing the risk of plaque formation and coronary artery disease.

Discuss with your physician tests and treatments that can be done to understand your cardiovascular risk (see page 1).

[Learn more.](#)

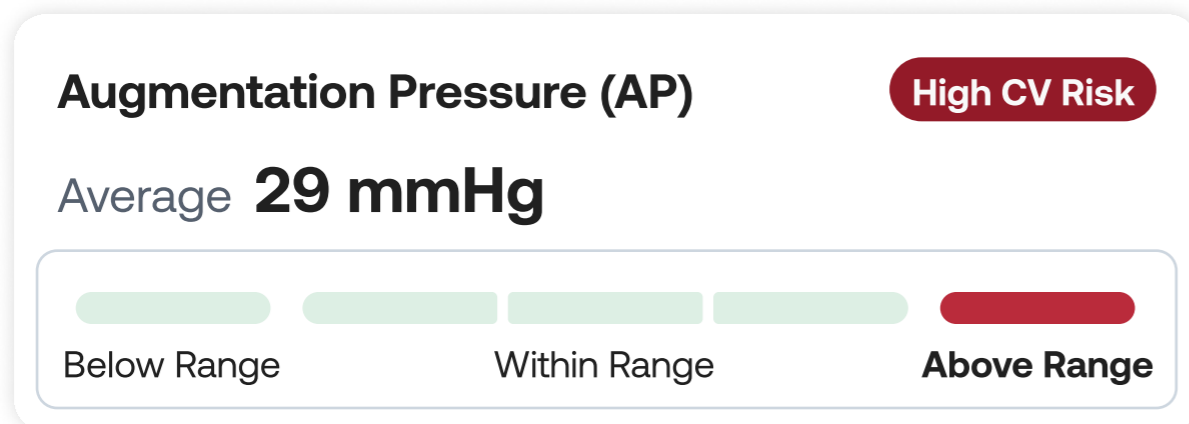
Central Pulse Pressure Trend



Augmentation pressure (AP) is the extra pressure your heart must overcome due to wave reflections in stiff arteries. When arteries are less elastic, part of the blood pressure wave bounces back toward the heart, creating additional pressure and making the heart work harder to circulate blood.

The Pulse uses pulse wave analysis (PWA), powered by SphygmoCor® technology, to assess AP. During the second part of the reading, the central pressure waveform is captured and used to calculate the extra pressure (in mmHg) caused by wave reflections.

What Do My Results Mean?



*Ranges are based on the Anglo-Cardiff Collaborative Trial (ACCT) Study

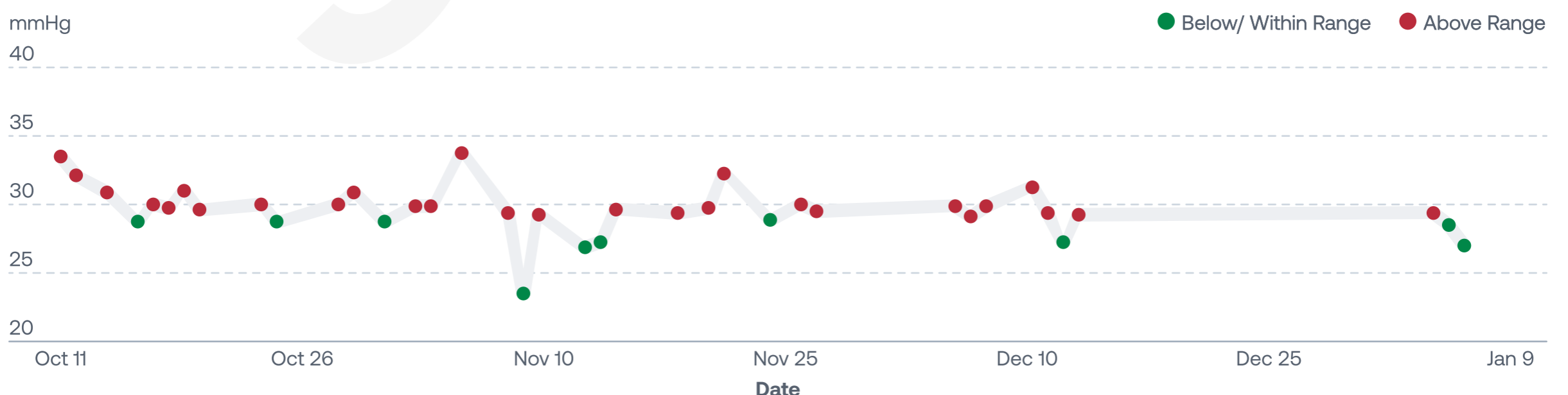
An above range AP means that arterial stiffness may be present and you may have an increased risk of cardiovascular disease.

This indicates that your arteries may be experiencing stiffness earlier, a process known as accelerated vascular aging. Accelerated vascular aging means arterial stiffness has occurred sooner than expected for your age, which could put you at greater risk of cardiovascular conditions such as hypertension, coronary artery disease, and heart failure.

Each 10mmHg increase in AP or each 10% increase in Alx above normal is associated with a 35-40% increased risk of a heart attack or stroke.

It is important to discuss arterial stiffness and these readings with your physician for tests and treatments that can be done to lower your cardiovascular risk (see page 1). [Learn more.](#)

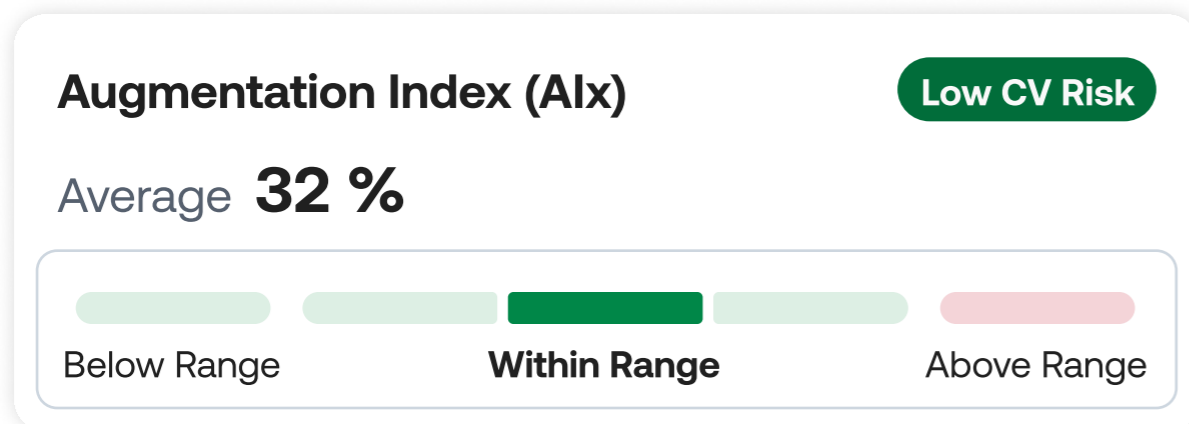
Augmentation Pressure Trend



Augmentation index (AIx) is the percentage of your central pulse pressure that comes from wave reflections in the arteries. When arteries stiffen, more of the pressure your heart generates is reflected back toward it. The higher your AIx, the more effort your heart must exert to overcome this added resistance.

The Pulse calculates AIx using pulse wave analysis (PWA), powered by SphygmoCor® technology. AIx is derived by expressing augmentation pressure as a percentage of central pulse pressure, adjusted for heart rate. This value reflects how much of the heart's total workload is due to arterial stiffness.

What Do My Results Mean?



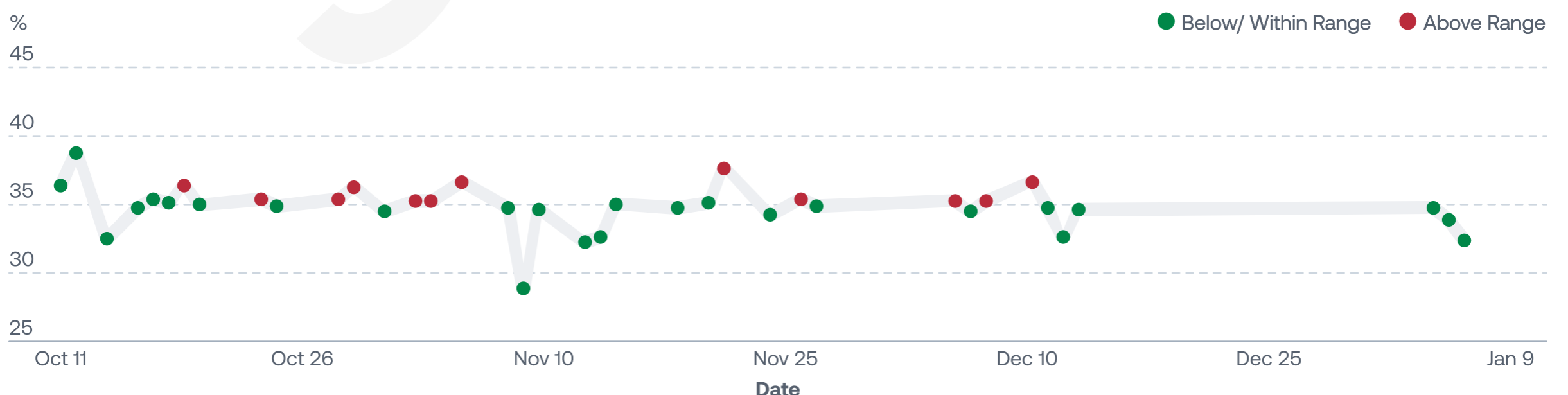
*Ranges are based on the Anglo-Cardiff Collaborative Trial (ACCT) Study

Within range indicates that your augmentation index is in the normal range and suggests your arteries remain elastic and healthy. Arterial stiffness is not present.

This means your measurement is within the range seen in 90% of the healthy population, indicating that your heart is not under strain from arterial stiffness. These values are consistent with what is generally expected for someone of your age, sex, and height.

Maintaining readings in the normal range with positive lifestyle such as a heart healthy diet, losing weight, and exercise are helpful to keep your augmentation index and cardiovascular risk low. [Learn more.](#)

Augmentation Index Trend



Pulse Pressure Amplification (PPA) is the difference between the pulse pressure measured near the heart and the pulse pressure measured at the arm. Higher amplification reflects flexible arteries, while lower values may indicate arterial stiffness. The Pulse calculates PPA by dividing brachial pulse pressure by central pulse pressure and expressing it as a percentage. This value is captured during the second inflation using pulse wave analysis powered by SphygmoCor® technology.

What Do My Results Mean?

Pulse Pressure Amplification (PPA) High CV Risk
 Average **128 %**

Below range pulse pressure amplification means that arterial stiffness may be present and you may have an increased risk of cardiovascular disease.

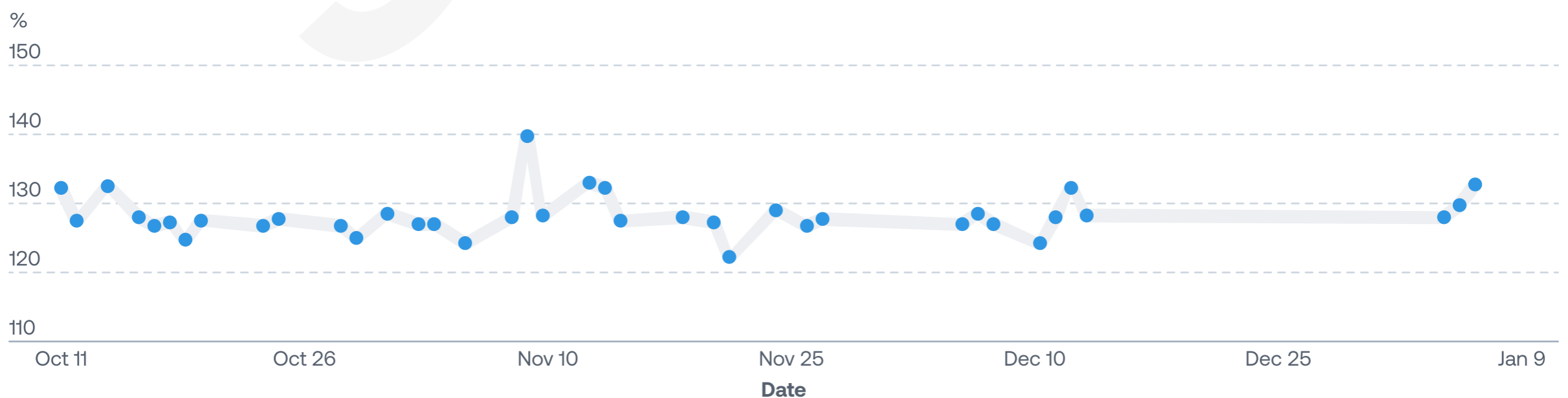
PPA is an important part of how your heart and arteries function. A PPA <130% indicates that your arteries may be experiencing stiffness earlier, known as accelerated vascular aging. Arterial stiffness that develops earlier can lead to cardiovascular disease sooner than expected for your age.

A PPA < 130% has been associated with a 2-fold greater risk of conditions such as a heart attack.

Sometimes brachial and central pressures tell different stories. If your brachial pressure is elevated while your central pressure is low or within range, this may reflect healthy pulse pressure amplification—a sign that your arteries are still elastic and helping to ease the pressure on your heart. But when PPA is under 130%, the difference between your brachial and central pressures becomes smaller—an early sign that your arteries may be stiffening and placing more pressure directly on the heart.

It is important to discuss these readings with your physician for tests and treatments that can be done to lower your cardiovascular risk (see page 1). [Learn more.](#)

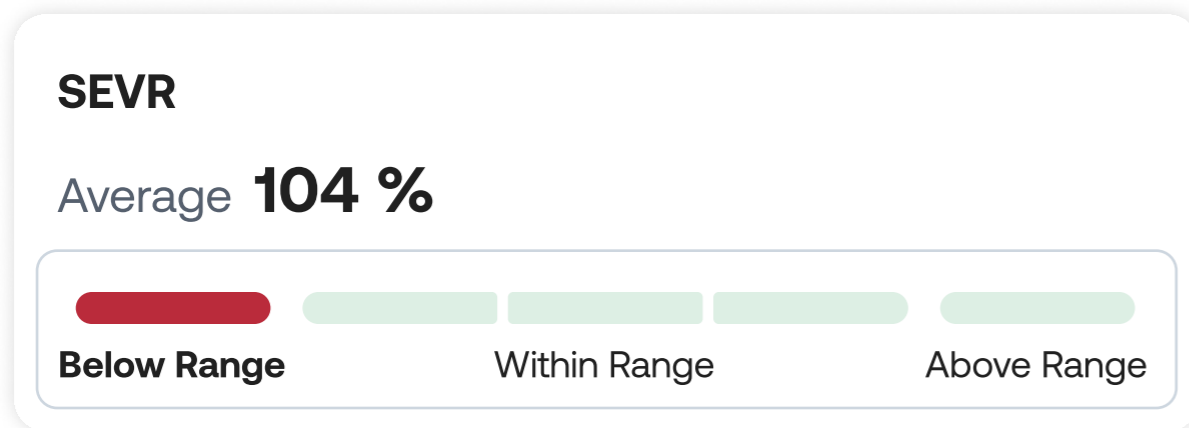
Pulse Pressure Amplification Trend



Subendocardial Viability Ratio (SEVR) is a measure of the balance between the oxygen supply and demand in the inner layer of the heart muscle, known as the subendocardium. It reflects how well the heart receives oxygen during each heartbeat, especially when demand increases.

The Pulse measures SEVR using pulse wave analysis (PWA), powered by SphygmoCor® technology. It analyzes the central blood pressure waveform to calculate the ratio of oxygen supply to demand in the subendocardium—the heart’s most vulnerable layer.

What Do My Results Mean?

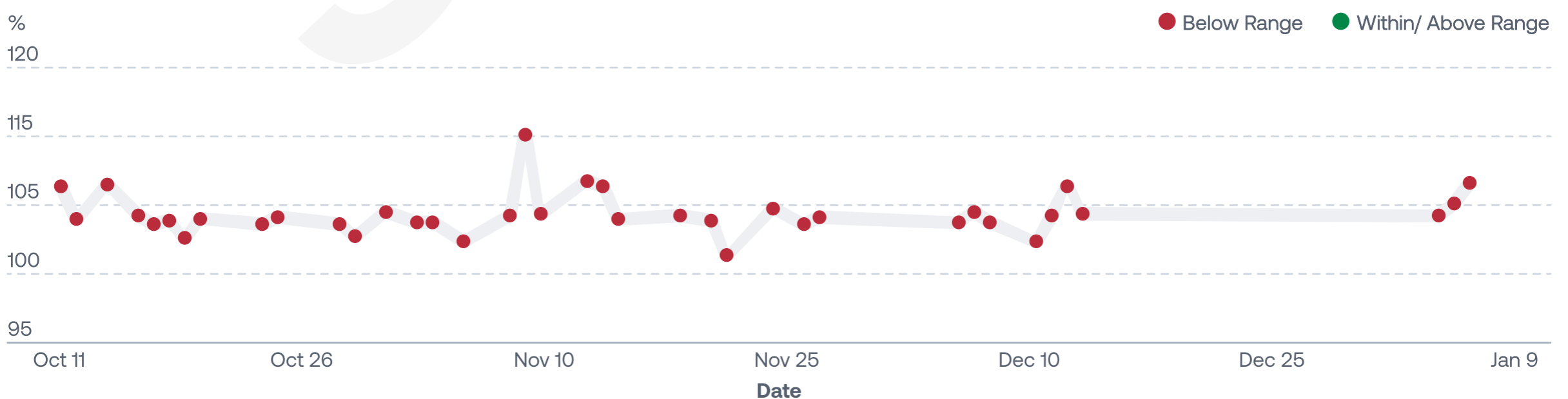


A below range SEVR is an indirect marker that arterial stiffness may be present.

What this means is that when SEVR drops below 100%, the heart muscle’s oxygen demand exceeds its supply. This may indicate that the inner lining of the heart—the subendocardium—is not receiving sufficient oxygen. It can be an early sign of ischemia or coronary artery stiffness.

All below range SEVR values should be interpreted in the context of your central blood pressure and arterial stiffness. See page 1 for recommended tests and treatments to evaluate cardiovascular risk. [Learn more.](#)

SEVR Trend



Brachial blood pressure is the pressure exerted on the brachial artery in the upper arm. It's typically reported as two numbers—systolic (SYS) over diastolic (DIA)—and is the standard way blood pressure is measured in clinical settings and at home.

The Pulse measures brachial blood pressure during the first part of the reading. It uses an upper arm cuff and oscillometric method to capture systolic (SYS) and diastolic (DIA) pressures, following guidelines consistent with standard clinical devices.

What Do My Results Mean?

Brachial Blood Pressure (SYS/DIA)

Average **135/82 mmHg**



*Categories based on the 2017 American Heart Association (AHA) guidelines.

Hypertension Stage 1 is defined as a SYS of 130–139 mmHg or a DIA of 80–89 mmHg.

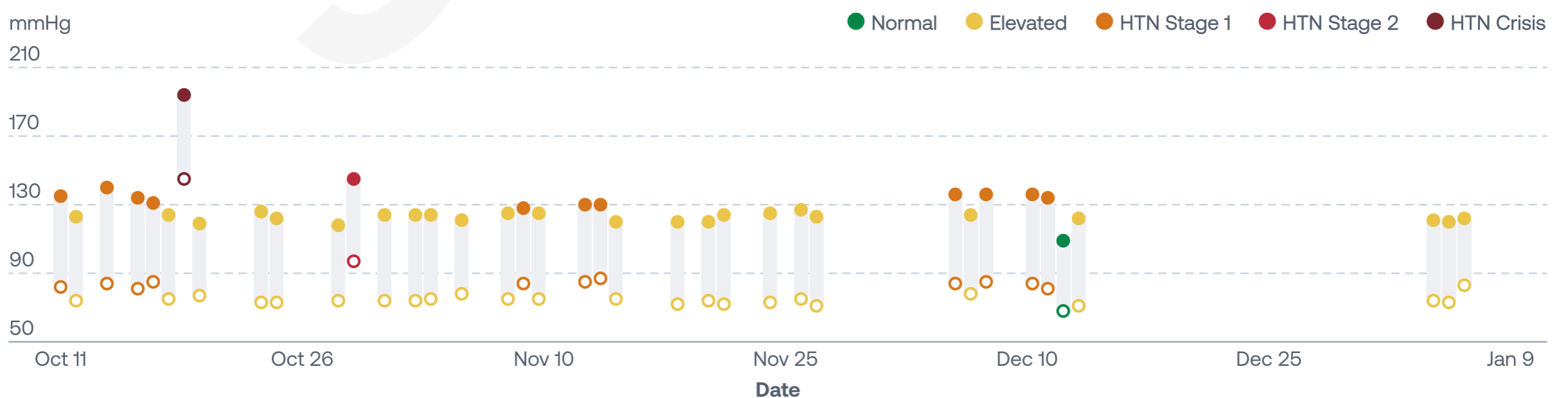
At this stage, there is an increased risk of cardiovascular disease. For every 20 mmHg increase in systolic or 10 mmHg increase in diastolic pressure above 115/75 mmHg, the risk of stroke and coronary artery disease doubles.

Lifestyle changes such as a heart healthy diet, weight loss, and regular exercise are helpful to reduce blood pressure and improve cardiovascular outcomes.

It is advisable to discuss treatment options with your physician to monitor and control your blood pressure. [Learn more.](#)

Note: If your brachial pressure is elevated while your central pressure is low or within range, this may reflect healthy pulse pressure amplification—a sign that your arteries are still elastic and helping to ease the pressure on your heart. Read more in the Pulse Pressure Amplification section.

Brachial Blood Pressure Trend



Learn More About Cardiovascular Disease

Cardiovascular disease is the world's leading cause of death, but many of its risk factors—like high blood pressure and arterial stiffness—often go unnoticed. Monitoring your heart health helps prevent complications and supports a longer, healthier life. [Browse our Insights Blog](#) and learn how a strong cardiovascular system contributes to greater energy, resilience, and longevity.

Learn More About the Metrics Tracked by the Pulse

The CONNEQT Pulse measures key cardiovascular metrics—such as central blood pressure, augmentation pressure, SEVR, and heart rate—to help you better understand how your heart and arteries are functioning. Tracking these values over time offers deeper insight into your cardiovascular health and supports more informed decisions about your well-being.

[Learn more.](#)

Learn More About Starting Your 28-Day Wellness Program

Build lasting habits to support better arterial health with our free 28-day Arterial Wellness Program. Featuring daily tasks, expert tips, and trusted education from the American Heart Association, this step-by-step program is designed to help you take action and see measurable progress. [Learn more.](#)

Learn More About Improving Your Heart Health

The Cardiology Report, included in your arterial health assessment, provides a comprehensive analysis of your heart health. These highly personalized reports help you understand your CONNEQT Assessments, evaluate your cardiovascular risk, and track key metrics like blood pressure and arterial stiffness over time. [Click here to discover](#) how these insights can guide you and your healthcare provider toward better heart health.

Learn More About Guided Wellness Programs

Guided Wellness Programs provide a structured approach to enhancing heart health and cultivating lasting habits. Rooted in the American Heart Association's Life's Essential 8, these programs cover key areas such as nutrition, physical activity, and blood pressure. Through daily tasks, you'll gain practical tools and knowledge to make meaningful lifestyle changes and maintain long-term cardiovascular health. [Get more details here.](#)

Learn More About Personalizing Your Heart Health Journey

Everyone's heart health journey is unique. With the CONNEQT App and its integrated tools, you can tailor your wellness plan to meet your specific needs and goals. From our Guided Wellness Programs to personalized Cardiology Reports, discover how a customized approach can help you achieve a healthier, more vibrant life. [Read more here.](#)

Contact Us

1-(234)-266-6378
hello@conneqthealth.com
conneqthealth.com

Available Hours:
9:00 AM to 7:00 PM (EST)
Monday - Friday

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