

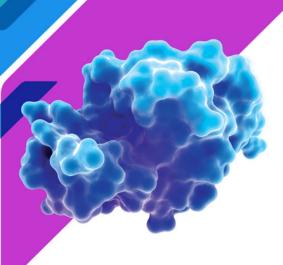
Welcome to the Future of Your Health!

The SomaScan® Platform from SomaLogic

Congratulations! You have taken the first step in actively managing your own health by testing a critical part of you in a way that has never been possible before.

This booklet walks you through this new approach — called the "SomaScan Platform" — which is only available through your healthcare provider. In this booklet, you can explore the available "SomaSignal tests" on the platform and think about how you and your healthcare provider can use them to manage your health today and throughout your life.

Let's start by learning a little about what makes the SomaScan Platform so different: measuring the thousands of different proteins that make up your body and its functions.



Your Proteins: Related to Your Genes, but More Important for Your Health

Your genes reveal your ancestry and your lifetime risk of developing some diseases, but are basically just the initial instruction manual for making your body. Your proteins, on the other hand, are the building blocks, messengers, and workers of your body from the beginning until the end of your life. Your genes can't tell you your current health status, or how your life and your environment are affecting your health. But your proteins can.

By measuring your proteins, the SomaScan Platform gives you a readout of your "real time" health status. It also tells you about your future health — are you heading towards a serious medical condition such as a heart attack? It can also tell you if you are on the path to a healthier life, and even help your healthcare provider suggest ways to get on that path.

Thousands of Proteins Together Paint a Better Picture of Your Health than Genes or Single Proteins

There are thousands of different proteins in your body, many of which can be found in your blood in various combinations and concentrations. Until now, we couldn't find the proteins that matter to your health because we couldn't measure that many proteins at one time. Now, with the SomaScan Platform, we can.

If you have had blood tests done by a lab in the past, some of them will have been protein tests. But when only one or two proteins are measured, most of the information about your body is missed. The SomaScan Platform is the first and only technology that can find and measure about 7000 human proteins at the same time, even the proteins that are present in only tiny amounts.

Translating your Proteins into Health Information

Once we have your protein measurements, how do we find the health meaning behind them? We use state-of-the-art mathematical modeling and statistics to find patterns of protein changes that track with different health states, different life choices, and different future risk predictions for a wide range of diseases and conditions. Each pattern that is found to be useful and repeatable is a SomaSignal test that we can then offer to people like you — through your health provider — to help you manage your health.

Our growing number of SomaSignal tests provide updates about your current and future health status, such as the percentage of fat in your body and your risk of a heart attack in the next few years – all from the protein information in your blood. Some of these tests offer information that is not available from any other test that you can get today and some replace other tests that might be difficult to perform, inconvenient, or costly.

SomaLogic is engaged in research programs with some of the world's leading research institutions. These programs provide the information that we use to build SomaSignal tests. We will continue to expand the number of tests that we offer, giving you and your healthcare provider the convenience and flexibility of learning deeply about your health in a way that no single blood or other type of diagnostic test can do today.

Take Charge of Your Health

Not only can you determine your current health status with the SomaScan Platform, you can also track your health and wellness over time. You and your healthcare provider can repeat SomaSignal tests to see how changes in your diet, activities, or medicines are working to reach your health goals. This allows you to make further adjustments if you need them, even before health problems actually develop. The SomaScan Platform is your personal roadmap for living a healthier life.

Now, let's discover more about the SomaSignal tests your healthcare provider has currently ordered for you.

The SomaScan Platform is based on a new technology that can identify the level of each protein even in a complex biological sample like blood, resulting in a complete readout of protein concentrations specific to the person providing the sample.



Primary Cardiovascular Risk - 4 years

Did you know that heart disease is the leading cause of death for both men and women in the United States? Early detection of risk is an important part of taking steps to reduce risk, prevent heart disease and prevent cardiovascular events.

This test identifies your future risk of a "primary" (i.e. first time) cardiovascular event for people like you who have not had a previous issue such as a heart attack, stroke, or heart failure.

What if your risk level is medium or high?

Don't panic! You and your healthcare provider will work together to assess what your risk report means, and consider whether medicines would help, or whether there are other changes you could make in your life.

What if your risk level is low?

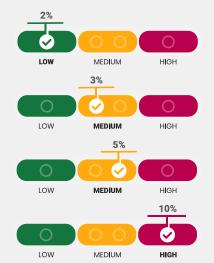
This is good news, but please understand that "low" risk is not zero risk! Use your low risk result as an encouragement to keep making healthy choices.

How does this test work?

We measure thousands of different proteins in the blood sample you provided. Then we look for a pattern of proteins we have discovered in thousands of people that points to a cardiovascular event within the next four years. We use the strength of this pattern to calculate your personal risk.

Your primary cardiovascular risk is reported to you as low, medium, or high, with a number that reports your risk of having an event in the next 4 years.

Potential Result



What does this mean?

In our test population, **2 in 100** people with a similar result to yours had an event within 4 years.

In our test population, 3 in 100 people with a similar result to yours had an event within 4 years.

In our test population, 5 in 100 people with a similar result to yours had an event within 4 years.

In our test population, **10 in 100** people with a similar result to yours had an event within 4 years.





Secondary Cardiovascular Risk – 4 years

People with risk factors such as heart disease, diabetes, chronic kidney disease, over 65 years of age, or people who have had a previous cardiovascular event, may have a higher risk of having an event in the future. Knowing your risk can help you and your healthcare provider decide on the most effective treatment program for you.

What if your risk level is medium or high?

You and your healthcare provider will work together to assess what your risk report means, and decide what medications, lifestyle changes, or other treatment programs are best for you.

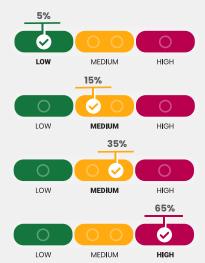
What if your risk level is low?

This is good news for you. Because you have had heart problems diagnosed in the past, your risk is still likely higher than someone who has never had any problems. Use your result as an encouragement to keep making healthy choices.

This secondary cardiovascular risk test is unique – there are no other tests like this available right now that are used specifically for people with increased risk factors such as heart disease or an earlier cardiovascular event

Your secondary cardiovascular risk is reported to you as low, medium, or high, with a number that reports your risk of having an event in the next 4 years. If your doctor has ordered both Primary and Secondary Cardiovascular Risk tests, the results will likely NOT be the same. Your healthcare provider will help you understand the one result that is most meaningful for your personal health history.

Potential Result



What does this mean?

In our test population, **5 in 100** people with a similar result to yours had an event within 4 years.

In our test population, 15 in 100 people with a similar result to yours had an event within 4 years.

In our test population, 35 in 100 people with a similar result to yours had an event within 4 years.

In our test population, **65 in 100** people with a similar result to yours had an event within 4 years.





Liver Fat

If fat builds up inside your liver, this can lead to inflammation and fatty liver disease, a disease that is becoming more common in our population, and which affects important functions of your liver. Excess fat in the liver can also increase the risk of heart disease and diabetes.

What if you are likely to have excess fat in your liver?

There are things you can do to reduce the levels of fat in your liver — you and your doctor can discuss which ones are best for you. It may be that you can lose weight if you are overweight, or you can start or increase your daily exercise, or you can focus on eating a healthier diet. You can protect your liver by limiting alcoholic drinks. There are also medicines that might be helpful. Your healthcare provider can help you decide on the right actions for you to take.

What if you are likely to have no excess fat in your liver?

You should continue what you're doing to help keep your liver healthy.

How does this test work?

We measured thousands of proteins in blood samples from people who had their liver fat measured by ultrasound tests. Some had no liver fat and others had excess fat. We discovered a pattern of proteins that mimics the ultrasound result. This test shows whether you are likely to have excess liver fat or not.

Your likelihood of having excess liver fat is reported to you as one of two possible results: no excess fat or some excess fat.

Potential Result

What does this mean?



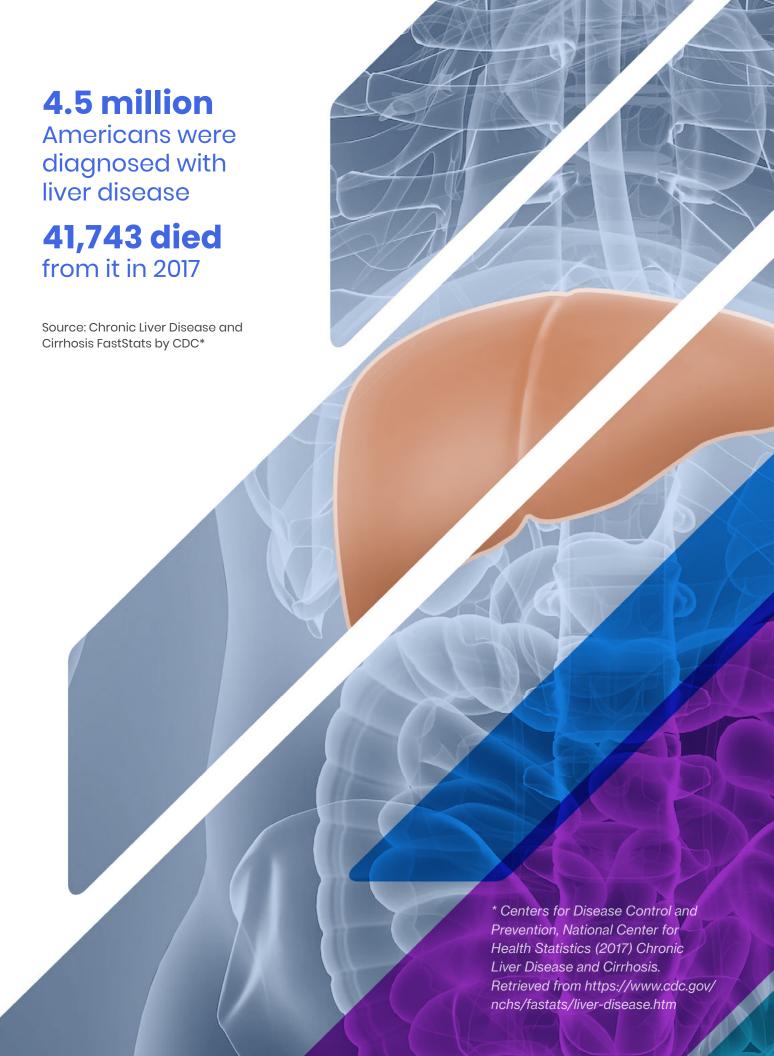
NO EXCESS FAT





You are **not likely to have excess** liver fat.

You may have excess fat in your liver.





Glucose Tolerance

The glucose tolerance test measures how well your body can process sugar (or glucose). If blood sugar rises too high after consuming simple sugars, this can indicate that your body's cells are not absorbing the sugar – leading to impaired glucose tolerance.

Impaired glucose tolerance is a major risk factor for diabetes. In fact, some healthcare providers refer to impaired glucose tolerance as "prediabetes." Having impaired glucose tolerance does not mean that a person has diabetes but having impaired glucose tolerance does increase the risk of developing diabetes. There are no obvious symptoms of impaired glucose tolerance, so it is possible to have the condition and not know it. In the US, about 30% of adults, around 90 million people, are estimated to have prediabetes, while about 10% of adults are estimated to have diabetes.

How does this test work?

We measured thousands of proteins in people who had their glucose tolerance measured by the conventional test: 8-12 hours fast, high sugar drink (75 g glucose) and blood test at 2 hours. We found a specific pattern of proteins that mimicked the results of this test that we use to report your glucose tolerance status.

Recipe for a **58% reduction** in type 2 diabetes risk*

- + 30 min excerise
- + 5 days/week
- 7% body weight

Glucose tolerance refers to how well your body processes dietary sugar (glucose), using it for energy or storing it for future use. If your body is unable to clear sugars from your blood normally, it is an early sign of insulin resistance which can lead to diabetes.

Potential Result

What does this mean?



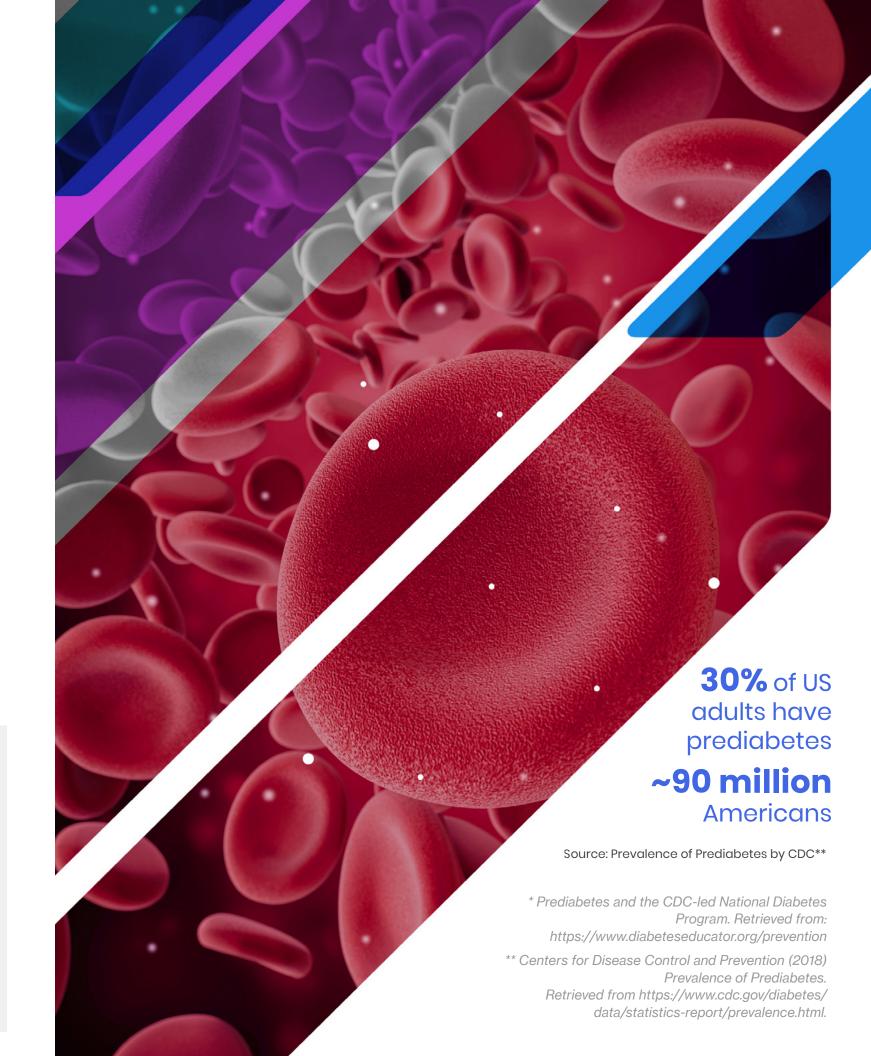


You are **not likely to have impaired glucose** tolerance.





You may have **impaired glucose tolerance**. This means that your body isn't able to process glucose efficiently. Your provider can help you choose the right nutrition, lifestyle, and therapeutic program for you that may be able to manage your glucose tolerance.





Kidney Function

Your kidneys have many important jobs –they act as a filter to remove waste products from your body that you don't need, they help control your blood pressure, they produce a hormone that helps make red blood cells, and they help to keep your bones healthy by activating vitamin D and balancing calcium in your body.

Kidney function is usually measured by estimating the flow rate of the kidneys –how well the kidneys are filtering out waste products from your body. The medical term for this is Glomerular Filtration Rate, or GFR. It is difficult to measure this filtering activity directly, so scientists have developed an equation that estimates this function using your age, sex, ethnicity, and your blood test results, and the result is the estimated GFR or EGFR.

Kidney disease affects an estimated 37 million people in the U.S. (15% of the adult population; more than 1 in 7 adults).

Source: https://www.kidney.org/news/newsroom/fsindex#fast-facts

How does this test work?

We measure thousands of different proteins in the blood sample you provided. Then we look for a pattern of proteins we have discovered in thousands of people that can give an estimate of kidney function, or EGFR. We look for this pattern in your proteins to provide you and your healthcare provider with your kidney function result.

Your kidney function is reported in a measure that accounts for the rate your kidneys are filtering your blood

Potential Result

What does this mean?

HIGH LOW
HIGH LOW
HIGH LOW

You have normal kidney function.

Your kidney function is reduced. Your healthcare provider can help you understand what you may do next to prevent a further decrease in kidney function.

STAGE 1 90% or more normal kidney function STAGE 2 There ore no specific 60-89% symptoms, but kidney function can slowly normal kidney function decline. STAGE 3 30-59% normal kidney function Kidney function is very **STAGE 4** low, and treatment for kidney failure may be 15-29% needed soon. normal kidney function Kidneys con no longer keep up with removing STAGE 5 waste products and extra water. This is Less than 15% called kidney failure. normal kidney function Although there is no cure, treatment options are available.



Alcohol Impact

Understanding alcohol impact can be challenging – some studies report benefits, others report risks. This test measures whether or not alcohol is having an impact on your body by comparing your test results with people who drink more or less than seven drinks per week.

Current American health guidelines recommend not exceeding seven drinks per week for women, and fourteen drinks per week for men. A higher impact test result does not mean that you are an alcoholic. Instead, alcohol is having an effect on your body that we can measure via the proteins in your blood. The size of that effect is similar to what we saw in people who were drinking more than seven drinks per week.

What if your results show a lower impact?

This result means that you are not showing the effects of more than seven drinks per week. This does not necessarily mean that you can safely increase your intake, as there are other effects of alcohol that are not captured in this test.

How does this test work?

We measured thousands of proteins in people where researchers had collected detailed histories of their alcohol use. We found patterns of proteins that were linked to drinking more than seven drinks per week, or seven or fewer drinks per week. The test result shows the level of impact your protein patterns indicate.

Your alcohol impact is reported to you as one of two possible results: lower impact or higher impact.

Potential Result

What does this mean?





Your body is showing **no or low impact** of alcohol.





Your body is showing a higher impact of alcohol.





Cardiorespiratory Fitness - VO₂ Max

A VO₂ Max test measures your maximal oxygen consumption during exercise of increasing intensity on a treadmill or a stationary bicycle while wearing a mask. These test results report your cardiorespiratory fitness: how well your lungs and heart are able to supply oxygen to your muscles during exercise.

If your result is low or fair, this means that your current capacity to use oxygen is somewhat limited. It is important for you to know that your aerobic fitness can be improved, and your healthcare provider can help you decide what to do.

If your result is good or excellent — generally, the higher your aerobic fitness value, the better — you have greater capacity to use oxygen. It also means that your lungs, heart, circulatory system, and muscles are working well together.

How does this test work?

We measured thousands of proteins in people who were having a VO₂ Max test using a treadmill or stationary bike. We found a consistent pattern of proteins that predicted the results after the VO₂ Max test was completed. We look for that pattern in your proteins, which will help you understand your current aerobic fitness.

Your result is reported to you in ml/kg/min which reflects the amount of oxygen (in milliliters) that is processed by your body (in kilograms) per minute.

Potential Result

EXCELLENT GOOD FAIR LOW EXCELLENT GOOD FAIR LOW

What does this mean?

Your aerobic fitness is **excellent** for someone of your age and sex.

Your aerobic fitness is **good** for someone of your age and sex.

Your aerobic fitness is fair for someone of your age and sex.

Your aerobic fitness is **low** for someone of your age and sex





Resting Energy Rate

Resting Energy Rate refers to the amount of energy that a person's body uses at rest. Resting energy, measured in calories, accounts for 60-75% of your daily energy need. It is the energy your body uses for your basic bodily functions – breathing, circulation, and nervous system activities.

Your test result for resting energy rate will show the amount of energy in calories that your body uses at rest. The actual amount of energy your body uses can be influenced by many factors such as your health status, your weight, and your hormone production.

Most of the women and men in our study population had resting energy rates that ranged from 1000 to 3000 calories per day. We cannot currently reliably predict your resting energy rate if it is below 1000 or above 3000 calories per day.

How does this test work?

We measured thousands of proteins in people who measured their resting energy rate using special equipment, including a mask they had to wear while lying down to measure their breath. We found a specific pattern of proteins that mimicked the results of this test that we use to report your resting energy rate.

Your resting energy rate is reported to you in number of calories per day, on a scale that ranges from 1000 to 3000 calories per day.

Potential Result What does this mean? Your resting energy rate is less than 1000 calories per day. Your resting energy rate is between 1000 and 1500 calories per day. Your resting energy rate is between 1500 and 2000 calories per day. Your resting energy rate is between 1500 and 2000 calories per day. Your resting energy rate is between 2000 and 2500 calories per day. Your resting energy rate is between 2500 and 3000 calories per day. Your resting energy rate is between 2500 and 3000 calories per day. Your resting energy rate is between 2500 and 3000 calories per day. Your resting energy rate is over 3000 calories per day.





Body Fat Percentage

Body fat can be found in your muscles, under your skin, or around your internal organs. Some body fat is good for you. It stores fuel for energy and regulates important body hormones. Too much body fat, with low levels of exercise, increases the risk of diabetes, heart disease, and some cancers.

Your test result for body fat percentage will be shown on a scale from less body fat percentage to more body fat percentage compared with people the same age and sex as you. You will also see numbers that show your percent body fat.

If your body fat percentage is too high, you may need to change your diet and exercise more to lose weight, perhaps combined with taking medicines if that's what your healthcare provider recommends. If your body fat percentage is lower, then you may have a healthy level of body fat. But if your body fat percentage is too low, your healthcare provider may have suggestions to help you get to your optimal range.

How does this test work?

We measured thousands of blood proteins in thousands of people who were having X-ray-based body scans. We found a pattern of proteins that closely mimicked the body scan measurements of body fat percentage. The graphic shows how your result compares with people of your age and sex in the USA.

Your body fat percentage is reported to you as a percentage.

Potential Result

LESS AVERAGE MORE LESS AVERAGE MORE

What does this mean?

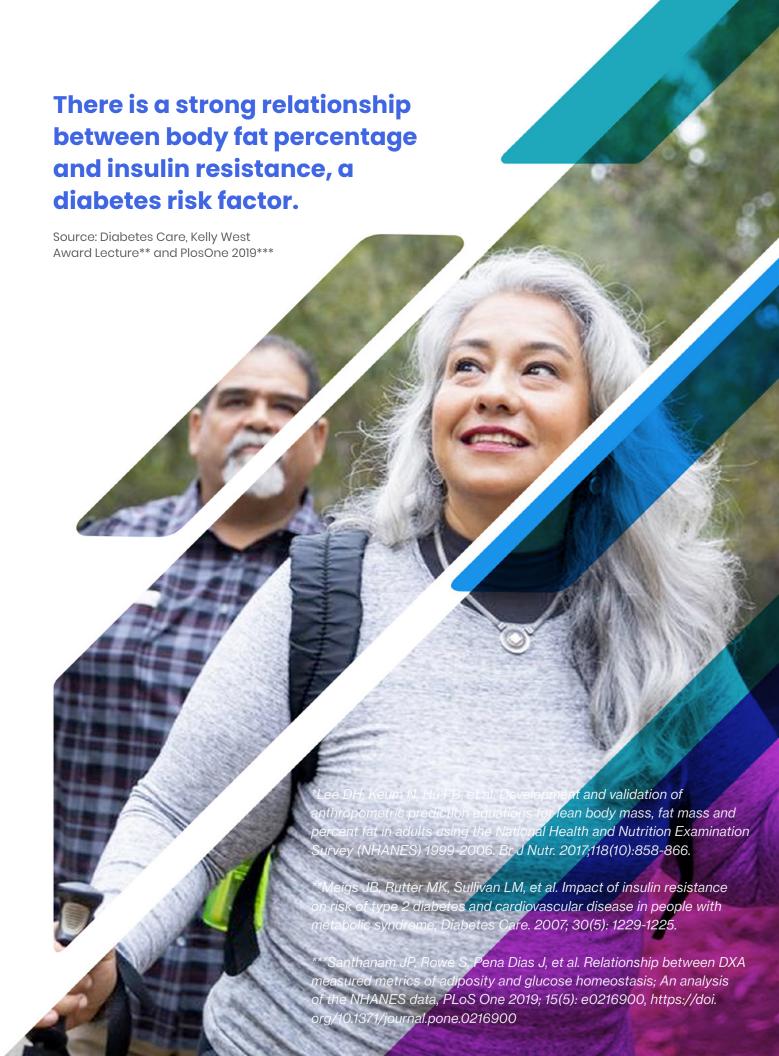
Your body is made up of less fat than others of the same age and sex as you.

Your body is made up of **less fat** than others of the same age and sex as you.

Your body is made up of an average amount of fat for someone of your age and sex.

Your body is made up of more fat than others of the same age and sex as you.

Your body is made up of **more fat** than others of the same age and sex as you.





Visceral Fat

Visceral fat is sometimes called "active fat" because it is more metabolically active than other fat in the body and it releases hormones and other chemicals that can have a negative impact on health.

Excess visceral fat has been associated with the increased risk of developing several serious medical conditions, including heart disease, heart attacks, diabetes, stroke, and some cancers. Visceral fat is located deep within your body, and is not easy to detect without looking deeper using low dose X-ray, MRI, or now, a blood test that measures your protein patterns that indicate the amount of visceral fat you may have. The good news is that visceral fat levels can be decreased through exercise and diet. If you do have higher levels of visceral fat, your healthcare provider can advise you on the right plan for you.

How does this test work?

We measured thousands of blood proteins in thousands of people who were having X-ray-based body scans. We found a pattern of proteins that closely mimicked the body scan measurements of visceral fat. The graphic shows how your result compares with people of your age and sex from our study population.

Your visceral fat is reported to you in pounds and can range from less than 0.5 to more than 12.5 pounds.

Potential Result W

What does this mean?

LOW AVERAGE HIGH

LOW AVERAGE HIGH

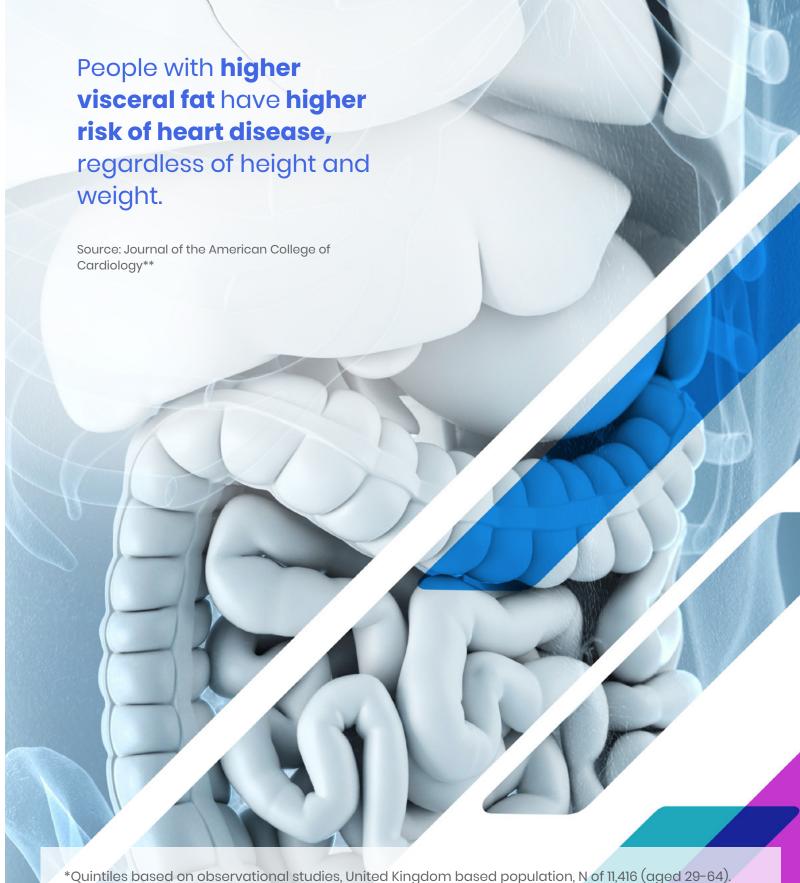
You have a ${\color{red} \text{low}}$ amount of visceral fat for someone of your age and sex.

You have a **low** amount of visceral fat for someone of your age and sex.

You have an average amount of visceral fat for someone of your age and sex.

You have a **high** amount of visceral fat for someone of your age and sex.

You have a **high** amount of visceral fat for someone of your age and sex.



- *Quintiles based on observational studies, United Kingdom based population, N of 11,416 (aged 29-64). Clifton EA, Day FR, De Lucia Rolfe E, et al. Associations between body mass index-related genetic variants and adult body composition: The Fenland cohort study. Int J Obes (Lond). 2017; 41(4): 613-619.
- **Shah RV, Murthy VL, Abbasi SA, et al. Visceral adiposity and the risk of metabolic syndrome across body mass index: the MESA Study. JACC Cardiovasc Imaging. 2014;7(12):1221–1235.



Lean Body Mass

Lean body mass is the weight of your muscles and other organ tissue (excluding bone). It's critical for performing normal activities of daily life, for exercise, and for burning calories for energy. Having more lean body mass, particularly muscle, can reduce the risk of diabetes and heart disease.

Lower lean body mass levels may indicate you need to work to build up more lean mass (through exercise and diet, for example). Your healthcare provider can help you decide which of these options is best for you. A higher level generally indicates you're at a healthy lean body mass.

How does this test work?

We measured thousands of blood proteins in thousands of people who were having X-ray-based body scans. We found a pattern of proteins that closely mimicked the body scan measurements of lean body mass.

Your lean body mass is reported to you in pounds and can range from less than 60 to more than 140 pounds.

Potential Result What does this mean?



You have **more** lean body mass than others of the same age and sex as you.

MORE AVERAGE LESS

You have an average amount of lean body mass for someone of your age and sex.

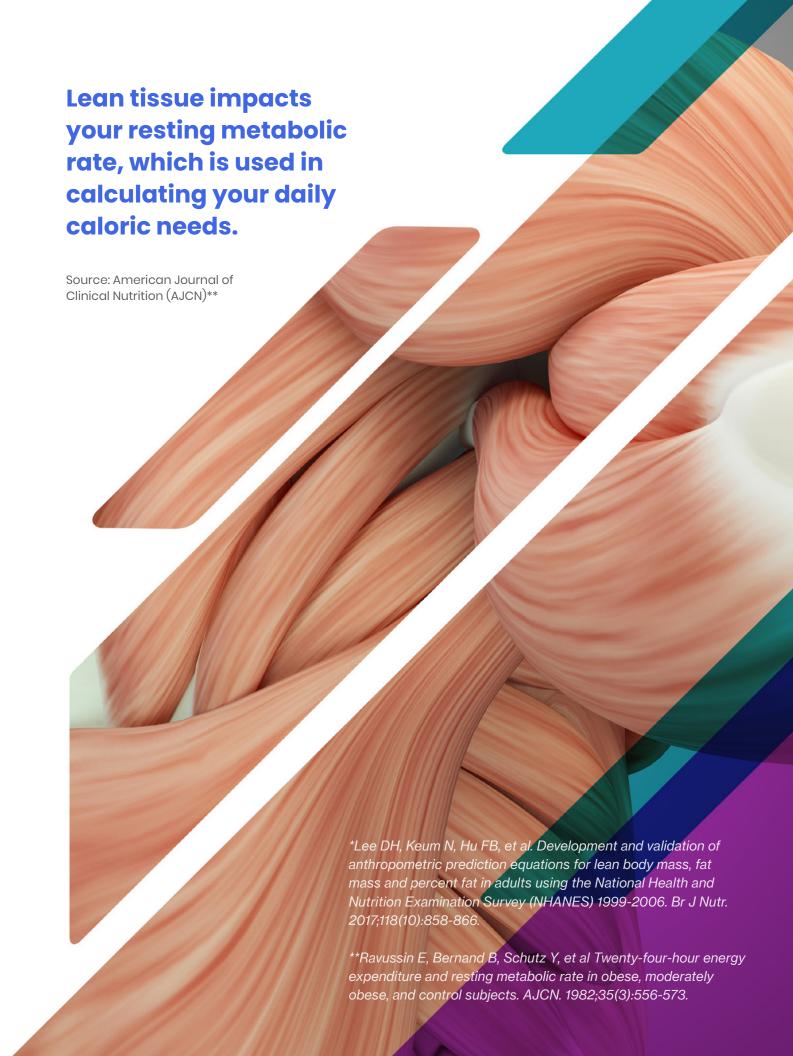
You have **more** lean body mass than others of the same age and sex as you.



You have less lean body mass than others of the same age and sex as you.

MORE AVERAGE LESS

You have less lean body mass than others of the same age and sex as you.





Heart Failure Prognosis

If you've been told that you have heart failure, that doesn't mean that your heart has failed, what it means is that your heart isn't able to pump blood and oxygen through your body as well as a typical heart. And important measure of heart function is the ejection fraction – your ejection fraction is the amount of blood inside your heart that it can pump out in each beat. If you have Heart Failure with reduced Ejection Fraction (HFrEF), the amount of blood that your heart can pump is reduced because the heart muscle has become weak.

If you have Heart Failure with preserved Ejection Fraction (HFpEF), the ejection fraction is not reduced, but your heart muscle has become stiff, so it doesn't function properly.

This test measures how serious your heart failure is by measuring your risk of dying from heart failure in the next 6 or 12 months. Your risk is reported to you as a number that is placed into one of three groups from lowest to highest risk. The groups were created based the results of our study population of patients with heart failure, and your results are presented so that you can compare your risk with the risk of other patients from this population. You and your healthcare provider will be able to work together to assess your risk and decide on the best course of action for you to help treat your condition.

How does this test work?

We measured thousands of proteins in people who had been diagnosed with heart failure and who had been studied for at least one year. We found protein patterns in these individuals that predicted their risk of dying in the next 6 or 12 months. We use this pattern to calculate your personal risk.

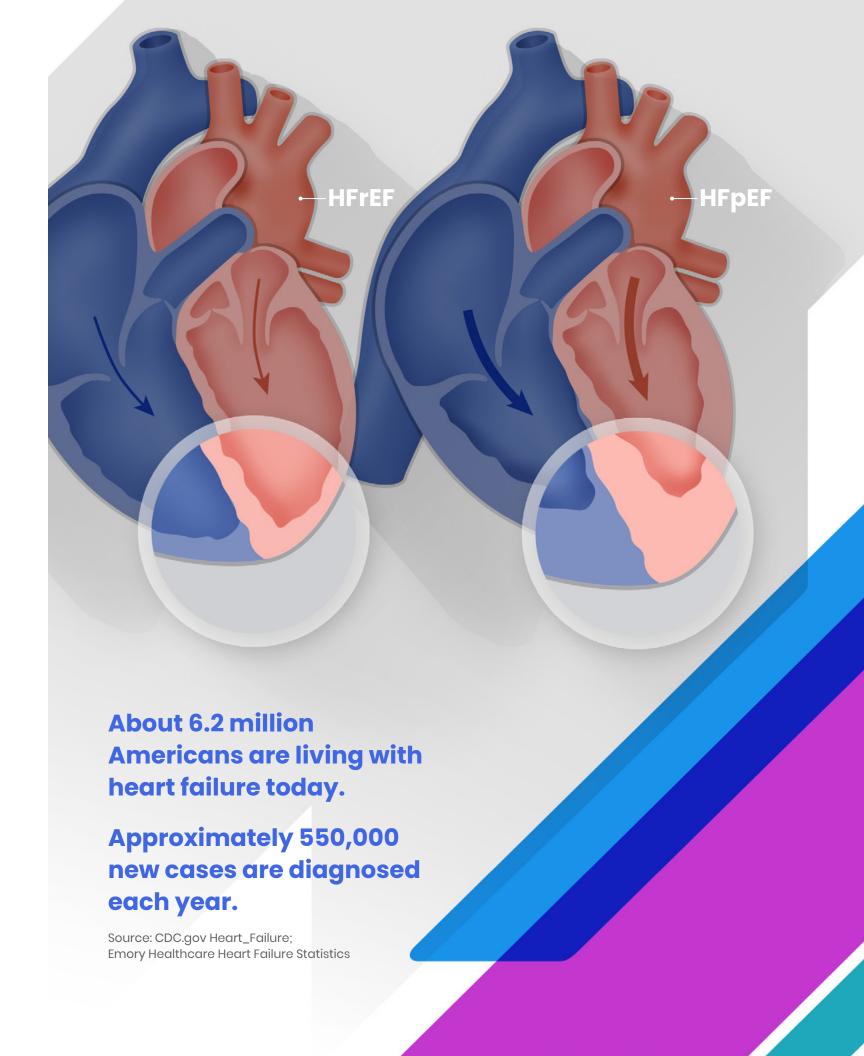
Your heart failure prognosis as a risk number.

Potential Result



What does this mean?

Your risk number puts you into a specific group from lowest to highest. Your number tells you the number out of 100 people with results like yours who died from heart failure in our study population. Alternatively, if you subtract your number from 100, that will tell you the number of people who did not die from heart failure in 6 or 12 months in our study population.





Kidney Prognosis

If you've been told you have chronic kidney disease, this means your kidneys are damaged. Damaged kidneys are not able to filter your blood well or do the other jobs that kidneys have to keep you healthy, such as helping to control your blood pressure, to make new red blood cells or to help keep your bones strong. Doctors measure the amount that your kidneys can filter your blood to understand the health of your kidneys, using a measure called the EGFR (estimated Glomerular Flow Rate) which is divided into 5 stages, with lower rates showing more kidney damage.

This test identifies your future risk of your kidney disease getting worse in the next 4 years –with either a 50% decrease in the rate your kidneys can filter your blood, or decreasing to a rate that puts you into Stage 5 Kidney Disease, or whether you'll need to go on dialysis, or whether you'll be a candidate for a kidney transplant. Your healthcare provider can use these results to help find the right treatment to help you to slow down or stop your kidneys from getting damaged more.

How does this test work?

We measure thousands of different proteins in the blood sample you provided. Then we look for a pattern of proteins we have discovered in thousands of people that can give a calculation of risk of further kidney damage in the next 4 years. We look for this pattern in your proteins to provide you and your healthcare provider with a measurement of your personal risk.

Your kidney prognosis as a risk number.

Potential Result



What does this mean?

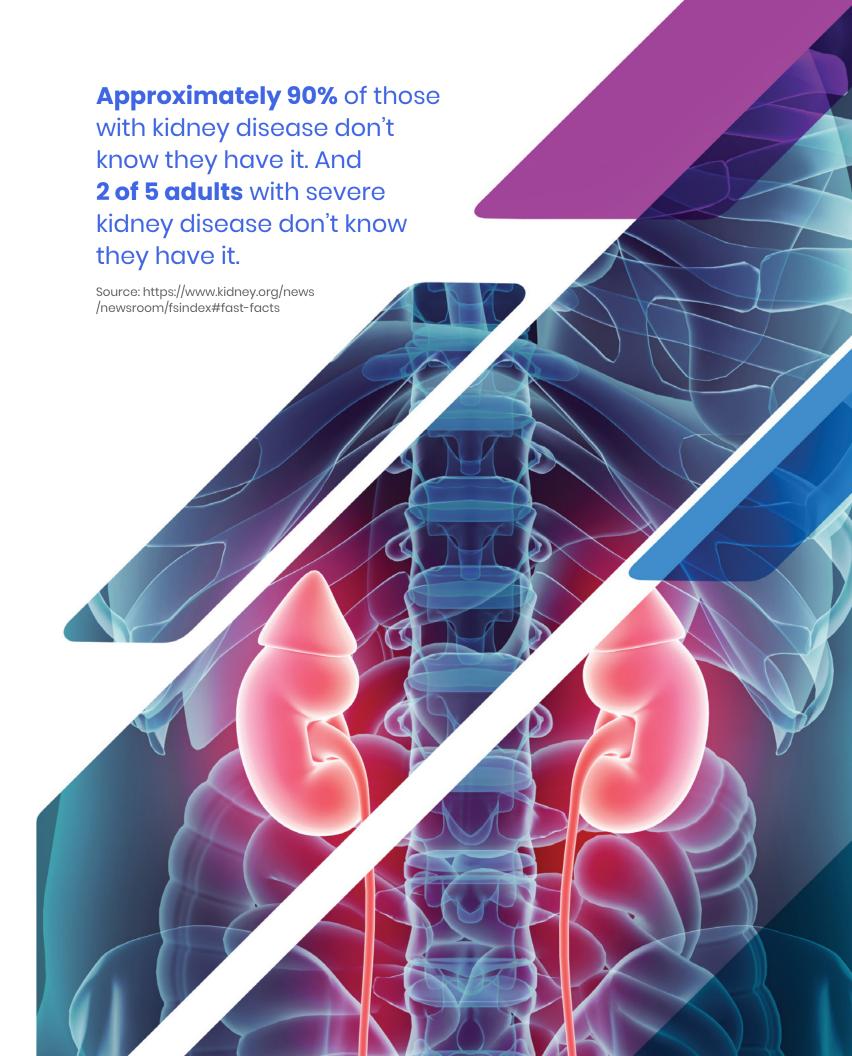
You have less risk than the average person with chronic kidney disease in our study population.

You have less risk than the average person with chronic kidney disease In our study population.

Your risk Is similar to the average person with chronic kidney disease In our study population. Your risk may be slightly lower or slightly higher.

Your risk of developing end stage kidney disease Is higher than the average person with chronic kidney disease from our study population.

Your risk of developing end stage kidney disease Is higher than the average person with chronic kidney disease from our study population.





Thank You

Understanding more about your current state of health, as well as your risk of disease are important first steps in managing your health and wellness. Measuring the proteins in your blood gives you a new tool to help you live a healthy life.

At SomaLogic, we are working on developing new tests every day and new tests are coming out frequently. Reach out to your healthcare provider to see if those tests are right for you.

We'd also like to hear from you - do you have a health or wellness question that you would like us to work on? If so, send us an email so that we have your health and wellness issues in mind as we think about the next incredible test to offer you.



Talk to your healthcare provider about your treatment plan



Reach out to your healthcare provider to learn about new tests



Let us know about the health or wellness questions you want answered by emailing customercare@somalogic.com



SomaLogic, Inc. developed the SomaSignal tests and determined their performance characteristics.

The tests have neither been cleared nor approved by the US Food and Drug Administration.



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