SiSU HEALTH

Helping people live a healthy life

sisuhealthgroup.com

Your Health Check Results Explained

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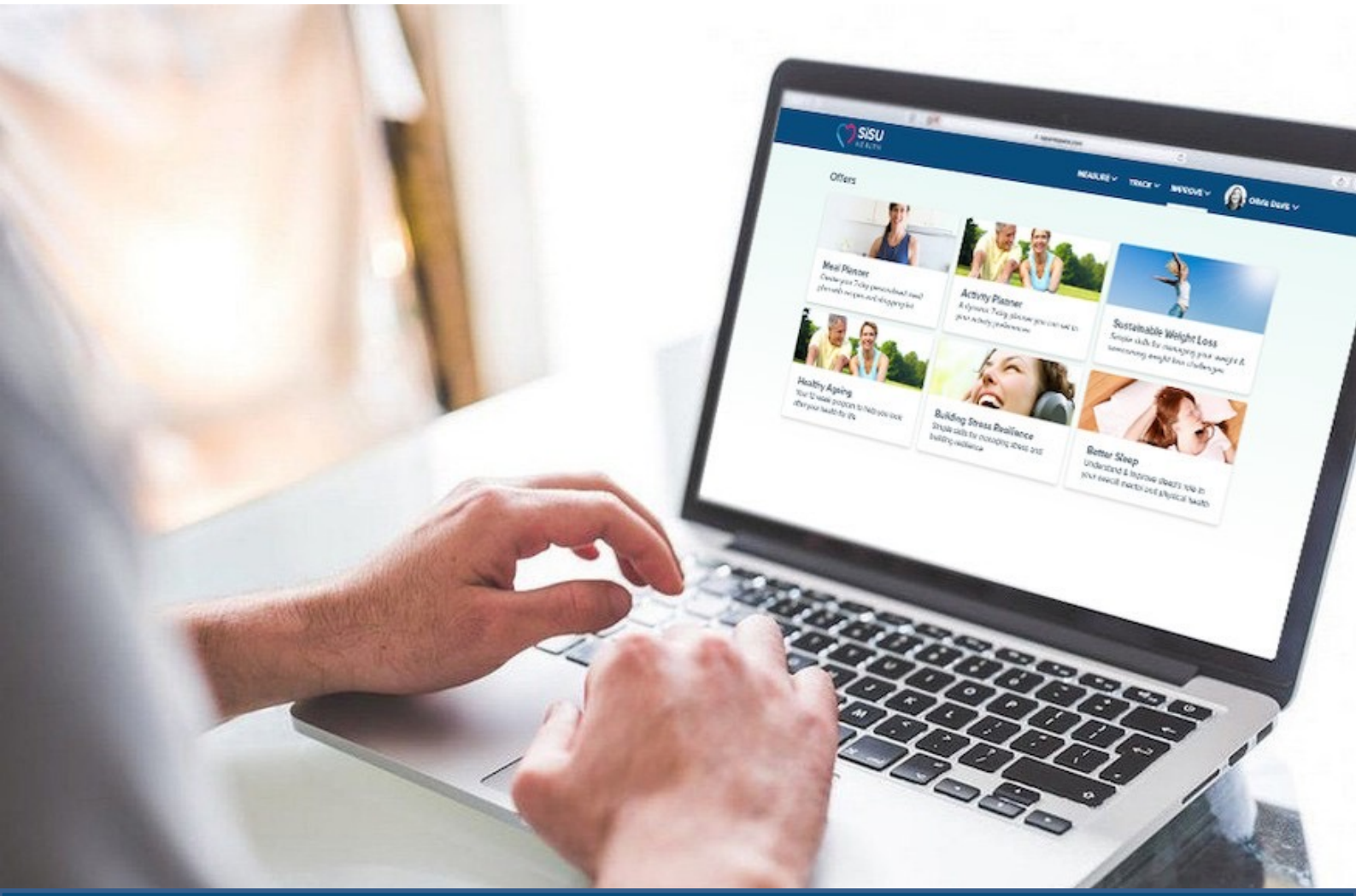
OWN YOUR HEALTH

Our mission is to help every single person become their best self and live better. We provide you with the resources so you can measure, track and improve your health for free.

Understanding your biometric measurements is essential to interpreting your health check results. Continue reading to find out more about each test available on the Medical Grade SiSU Health Station.



Height, Weight & BMI

The height sensor uses ultrasonic proximity detection that can detect objects from 20cm to 5m. The sensor is accurate to 0.2cm, up to a total of 2m. The weight scale is accurate to 200g, up to a maximum of 250kg.

Considerations for accurate height and weight readings on the SiSU Health Station:

- Stand within the footprints on the floor vinyl
- Look at the top screen
- Stand up straight and stand still, as movement may affect the measurement
- Sit down once prompted by the Station
- For a more accurate reading shoes can be removed, although no bare feet on the Station floor for sanitary purposes.

The following readings will prompt a retest:

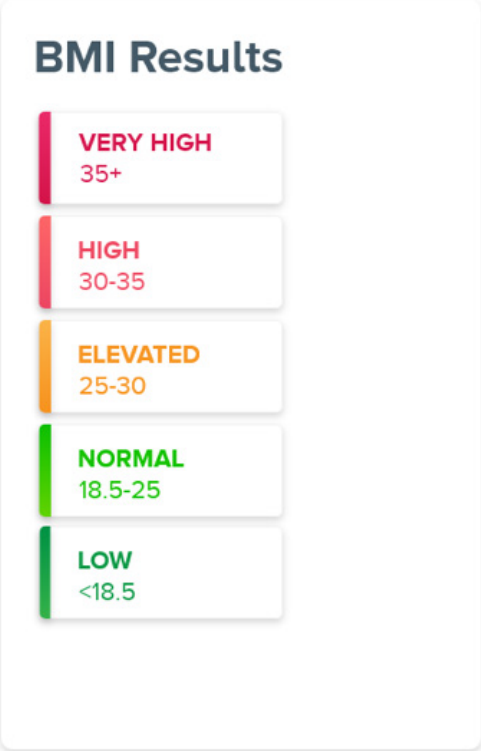
- Height under 100cm
- Weight under 30kg
- BMI lower than 11, and higher than 250

Body Mass Index (BMI)

Body Mass Index (BMI) is an internationally recognised weight assessment measurement, recommended by the World Health Organisation. BMI is not always a perfect measure for every individual; however it is a good indicator of the health of adult population groups.

The BMI calculation uses your height and weight measurements to determine if you are a healthy weight for your height.

The BMI calculation is: Weight (kg) / height $(m)^2$



A BMI **outside of the healthy range** indicates an increased risk of diseases such as:

- Diabetes
- Cardiovascular disease
- Some cancers
- Musculoskeletal disorders

BMI is not a suitable measure for:

- People under 18 years of age
- Women who are pregnant

Healthy weight range **exceptions**:

- The healthy weight range is lower for people with an Asian background
- The healthy weight range is higher for those of Polynesian origin
- The healthy weight range is higher for older people
- The healthy weight range is higher for elite athletes with higher than normal levels of lean body tissue

Blood Pressure & Heart Rate

High Blood Pressure is a risk factor for heart disease and stroke. It can be known as the 'Silent Killer', as there are rarely any noticeable symptoms. High Blood Pressure can weaken the walls of your arteries in your brain, and contribute to the build-up of atherosclerosis (plaque build-up on artery walls), restricting the flow of blood to your heart.

What is Blood Pressure?

Blood Pressure measures the pressure of blood in the artery next to your heart, and the rate the blood is pumped out of your heart, and into your arteries. Your Blood Pressure reading has two numbers, a systolic reading and a diastolic reading.

$$\frac{120}{80}$$

Systolic Pressure: The level of pressure in your arteries during contraction of your heart muscles.

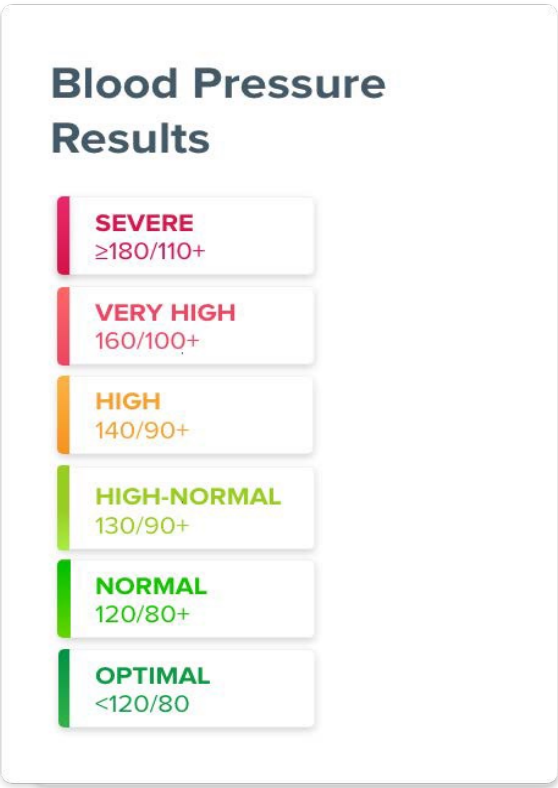
Diastolic pressure: The pressure of your blood in between heartbeats.

It is usual for the Blood Pressure to fluctuate significantly during the day, depending on what you are doing and how you are feeling. The Blood Pressure and Heart Rate readings can be affected by improper placement of the arm in the cuff, incorrect or strained posture, excessive movement, previous activity before the measurement, or your physiological condition.

What contributes to high Blood Pressure?

- Being overweight
- Smoking
- Physical inactivity
- Excessive alcohol intake
- Stress
- Family history

The ranges provided on the SiSU Health Station (Systolic/Diastolic mmHg):



How often should I check my Blood Pressure?

If your blood pressure is within the healthy range, we recommend completing a health check at a SiSU Health Station regularly to monitor your Blood pressure.

If your blood pressure result is in the **Very High** or **Severe** categories, we recommend following up with your GP for further advice and testing.

To assist in obtaining a resting Blood Pressure (or close as possible to), you should complete the following steps:

1. Have the left arm free of constricting clothing, with any jackets removed and hung on the coat hook provided. Shirts and thin tops can remain on during the measurement.
2. Be seated (no crossed legs), with feet flat on the floor.
3. The Blood Pressure cuff should be positioned over the brachial artery (under the bicep), with the lower border of the cuff approximately 2 cm above the elbow bend.
4. Place your forearm on the armrest, with the palm facing up
5. Try to relax relaxed before the measurement is taken
6. Do not talk during while the blood pressure reading is being taken.

Blood Pressure Device – Technical Specifications

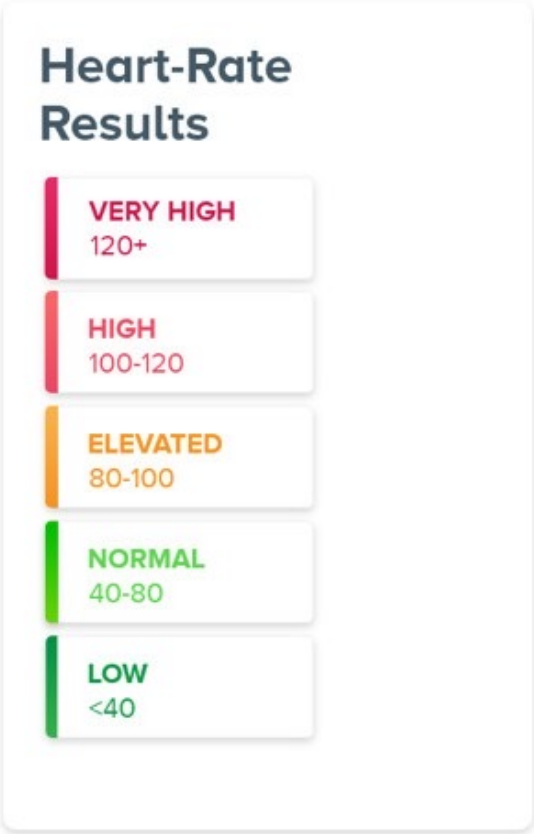
The medical-grade Blood Pressure device has obtained CE Mark for 93/42/ EEC and is compliant with IEC 60601-1:2005 3rd Edition, IEC 80601-2- 3:2009 and ISO 81060-2:2009/2013. The results are equivalent to those obtained by trained observers using the cuff/stethoscope auscultatory method within limits prescribed by ANSI/AAMI SP10:2002(R)2008 (mean error difference of ± 5 mmHg or less, a standard deviation of 8 mmHg or less). The range of the Blood Pressure measurement is 60-230 mmHg systolic, 40-130 mmHg diastolic. Blood Pressure Cuff accuracy is specified for an upper arm circumference of 240mm to 380mm. Arm circumferences outside this range may lead to inaccurate results.

The accuracy of the Blood Pressure should not deviate more than 2 mmHg due to environmental Electromagnetic Compatibility (EMC). In the event of an extreme EMC environment, the results of the Blood Pressure test may not be clinically accurate.

Heart Rate

Heart rate or pulse is the number of times your heart beats per minute. Your resting heart rate is an indication of how efficiently your heart is working. It is essential to know that your resting heart rate is not an indicator of your resting Blood Pressure.

Generally, a lower heart rate will indicate a higher level of fitness. An individual's resting heart rate varies between 60 – 100 beats per minute.



What influences your heart rate?

Short term

- Physical activity – while you are physically active your heart rate will go up
- Air temperature – hot weather can increase your heart rate
- Medications
- Emotions – stress or excitement can make your heart rate go up

Long term

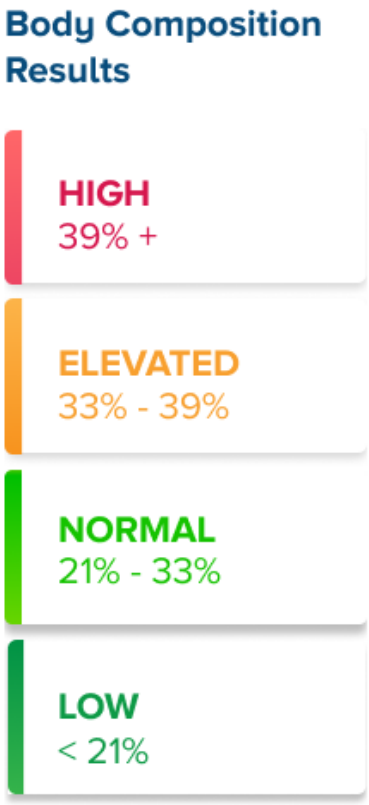
- Fitness level – higher levels of cardiovascular fitness can lower your resting heart rate
- Age – your heart rate can change as you get older

If your heart rate is above 100 beats per minute, make sure you check in with your GP.

Body Composition

The Body composition measurement on the SiSU Heath Station uses a method called Bio- electrical Impedance (BIA).

Along with the your age, height and weight, the Body Composition result takes the BIA output and provides a clinically validated result for Body Fat.



High body fat as measured by BIA can help in identify an increased Cardiometabolic risk which can lead to metabolic syndrome.

It is best to think of the body fat result as an advanced BMI, and like BMI there is still limitations and should be used in conjunction with other indicators such as Blood Pressure and Resting Heart Rate, to determine health goals and if lifestyle change is needed.

How does it work?

The handles of the SiSU Health Station create a tiny high-frequency signal that passes though the muscle and fat of your arms and chest.
Because muscle and blood conduct electricity and fat insulates electricity, the total electrical resistance will give an indication of the users fat percentage.

The unit meets IEC 60601-1 requirements including patient auxiliary current and power isolation.

Body Composition Test Limitations

Body composition will not work above 50% body fat and/or BMI > 50.
It operates on a prediction algorithm that will give varying results for different people. Hydration, time of day, whether you have long or short arms for your height and even your ethnicity can impact the results.

Calibration:
A resistor bank is used to compare an expected result with the actual result for the body fat percentage reading. 24 points of calibration are taken using a calibration device that is accurate to 0.1%.

Considerations for completing body composition testing:

- You need to be seated
- Handles need to be held tightly for the duration of the test
- Ensure your arms are straight, and not touching the Blood Pressure Cuff
- If you are pregnant or have a pacemaker, the test will not be offered.

Perceived Stress Scale (PSS-4)

The Perceived Stress Scale 4[1] is a global measure of perceived stress. Self perceived stress is assessed using a 4-item perceived stress scale, providing scores 0-16, with higher score indicating greater stress.

The questions in the scale ask you about your feelings and thoughts during the last month. The Individual completing the assessment is asked to rate each question by frequency (Never; Almost Never; Sometimes, Fairly often; Very often).

The questions include:

- In the last month, how often have you felt that you were unable to control the important thing sin your life?
- In the last month, how often have you felt confident about your ability to handle your personal problems?
- In the last month, how often have you felt that things were going your way?
- In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

SCORING
Questions 1 and 4: 0=Never, 1=Almost Never; 2=Sometimes; 3=Fairly Often; 4= Very Often
Questions 2 and 3: 4=Never, 3=Almost Never; 2=Sometimes; 1=Fairly Often; 0= Very Often

1. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396

Diabetes Risk Score

The diabetes risk algorithm on the SiSU Health Station is based on the Australian Type 2 Diabetes Risk Assessment Tool (AUSDRISK), developed by the Baker IDI Heart and Diabetes Institute on behalf of the Australian state and territory governments. It represents the most up to date information on the risk factors for the development of diabetes.

The AUSDRISK test contains 10 questions which look at various factors and each question is weighted differently, meaning that some risk factors will increase your risk more than others.

Risk factor		Points
Age group	Under 35 years	0
	35 – 44 years	2
	45 – 54 years	4
	55 – 64 years	6
	65 years or over	8

Risk factor		Points
Gender	Female	0
	Male	3

Risk factor		Points
Ethnicity - Are you of Aboriginal, Torres Strait Islander, Pacific Islander or Maori descent?	No	0
	Yes	2

Risk factor		Points
Country of birth	Australia	0
	Asia (including the Indian sub-continent), Middle East, North Africa, Southern Europe	2
	Other	0

Risk factor		Points
Are you currently taking medication for high blood pressure?	No	0
	Yes	2

Risk factor		Points
Have you or your parents, or any of your siblings, been diagnosed with diabetes (type 1 or type 2)?	No	0
	Yes	3

Risk factor		Points
Do you currently smoke cigarettes or any other tobacco products on a daily basis?	No	0
	Yes	2

Risk factor		Points
Do you do at least 2.5 hours of physical activity per week? (for ex, 40 min on a day on 5+ days / week)	Yes	0
	No	2

Risk factor		Points
How often do you eat vegetables or fruit?	Everyday	0
	Not everyday	1

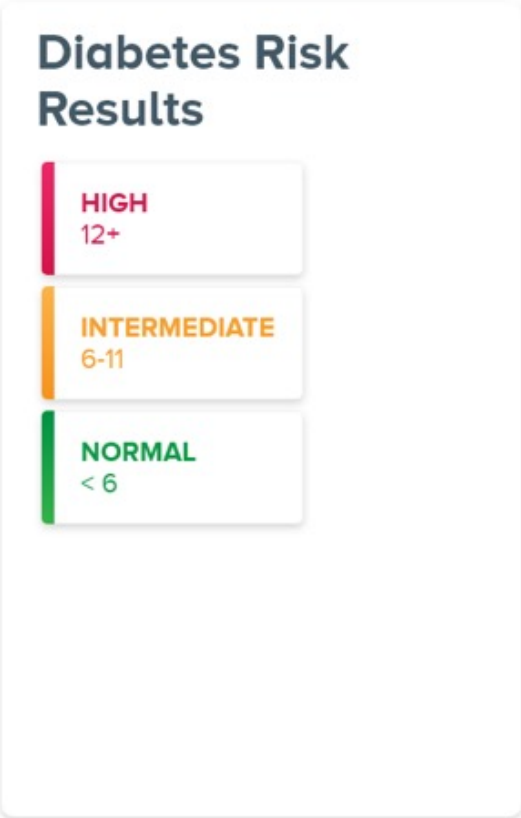
For Asian or Aboriginal or Torres Strait Islander descent			
Risk factor	Women	Men	Points
Waist measurement (cm)	Less than 80	Less than 90	0
	80 - 90	90 - 100	4
	More than 90	More than 100	7

Risk factor	**Women**	**Men**	Points
Waist measurement (cm)	Less than 88	Less than 102	0
	88 - 100	102 - 110	4
	More than 100	More than 110	7

It is essential to be aware of all the risk factors relevant to you and then focus on elements in your control.

What do the results mean?

The likelihood of developing diabetes based on your AUSDRISK rating is summarized below:



If you are concerned about your AUSDRISK score, we recommend discussing your results with your GP.

5 or less: Low risk
If you scored 5 or less, you are at low risk of developing type 2 diabetes within 5 years - approximately one person in every 100 will develop type 2 diabetes.

6 - 11: Intermediate risk
If you scored 6 to 11, you are at intermediate risk of developing type 2 diabetes within 5 years For scores of 6-8, approximately one person in every 50 will develop diabetes. For scores of 9-11, approximately one person in every 30 will develop diabetes.

12 or more: High risk
If you scored 12 or more, you are at high risk of developing type 2 diabetes within 5 years, or you may have undiagnosed type 2 diabetes.

For scores of 12-15, approximately one person in every 14 will develop diabetes.
For scores of 16 to 19, approximately one person in every 7 will develop diabetes.
For scores of 20 and above, approximately one person in every 3 will develop diabetes.

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