

Wellness Results

Biometric Measurements

BMI:

Body Mass Index (BMI) is a widely used screening tool that helps assess whether your body weight is healthy for your height. It is a simple, quick measure and is often used as a starting point for evaluating potential health risks.

Lean Body Mass:

Lean body mass is the weight of everything except the fat. You can work towards improving your lean body mass by increasing your healthy muscle by making sure you are well hydrated and by working towards reducing your visceral and subcutaneous fat.

Body Fat Mass and Percent Body Fat:

Body fat mass is the total amount of fat in the body. Body fat percentage is the total mass of fat divided by total body mass, multiplied by 100. Excess body fat can increase the risk of many serious health conditions, including heart disease, diabetes, and some cancers.

Body Water:

Body water makes up the largest percentage of body weight, it's usually around 60% to 75% of a person's total weight.

Dry Lean Mass:

Dry lean mass is the total body mass minus the water and fat mass. It is the combination of the weight attributed to the protein and the bone mineral in your body which are both a major component of muscle.

BMI Categories

- **Underweight:** BMI < 18.5
- **Normal weight:** BMI 18.5 - 24.9
- **Overweight:** BMI 25.0 - 29.9
- **Obesity (Class 1):** BMI 30.0 - 34.9
- **Obesity (Class 2):** BMI 35.0 - 39.9

Lean Body Mass Ranges

- Lean body mass between 70% and 90% if your total weight is considered healthy
- Women being towards the lower end of the range and men towards the higher end

Percent Body Fat Ranges

- **Athletes:** 14–20%
- **Fitness enthusiasts:** 21–24%
- **Healthy average:** 25–31%
- **Dangerously high (obese):** 32% and over

Daily Recommended Water Intake

- **2.7 liters** of fluids/day for women
- **3.7 liters** of fluids/day for men

Biometric Measurements (Continued)

Skeletal Muscle Mass:

Skeletal muscle mass is the amount of muscle tissue in the body. This type of muscle is important for mobility, balance, and strength. It's a sign of overall physical function. Change in skeletal muscle, as the result of increased exercise and diet modifications, is the most effective indicator of health improvements.

Basal Metabolic Rate:

Basal metabolic rate (BMR) refers to the minimum number of calories your body needs to function at a basic level, this includes maintaining all your cells and essential bodily functions. Your BMR can be used to help you gain, lose, or maintain your weight. By knowing how many calories you burn, you can know how many to consume.

Grip Strength:

A clinically recognized biomarker reflecting overall health, functional capacity, and longevity. Diminished grip strength correlates with increased risks of cardiovascular diseases and cognitive decline. Improving grip strength is about enhancing hand function, and bolstering overall health and muscle maintenance. If your grip strength falls below the average range for your demographic consider resistance training, hand and forearm exercises, and nutritional support to promote muscle growth.

Blood Pressure and Heart Rate:

Blood pressure and pulse assess cardiovascular health. These values provide insight into the efficiency of your heart and vascular system. Blood pressure measures the force of blood pushing against the walls of your arteries, your pulse reflects the number of times your heart beats per minute.

Muscle Mass % Averages for Men

- **18 - 35:** 40% to 44%
- **36 - 55:** 36% to 40%
- **56 - 75:** 32% to 35%
- **76 - 85:** < 31%

Muscle Mass % Averages for Women

- **18 - 35:** 31% to 33%
- **36 - 55:** 29% to 31%
- **56 - 75:** 27% to 30%
- **76 - 85:** < 26%

Grip Strength

Age (years)	Males (kg)	Females (kg)
20 - 24	47.0 - 53.3	28.5 - 31.5
25 - 29	49.9 - 54.0	30.8 - 33.8
30 - 34	49.2 - 52.8	31.7 - 33.8
35 - 39	51.6 - 53.3	30.2 - 33.2
40 - 44	49.7 - 54.2	29.5 - 32.8
45 - 49	48.7 - 50.4	30.8 - 33.9
50 - 54	45.2 - 50.5	28.6 - 30.9
55 - 59	41.0 - 44.1	27.2 - 29.9
60 - 64	38.7 - 41.8	23.0 - 25.9
65 - 69	38.3 - 41.7	22.9 - 25.6
70 - 74	36.3 - 38.3	22.3 - 24.2
75	29.8 - 31.0	16.4 - 18.0

Blood Pressure Categories

- **Normal:** < 120 over < 80
- **Elevated:** 120 - 129 over < 80
- **Hypertension (1):** 130 - 139 over < 80 - 89
- **Hypertension (2):** ≥ 140 over ≥ 90
- **Hypertension (3):** > 180 over > 120*

* Requires immediate medical attention



Blood Tests

A cholesterol and lipid panel is a blood test that measures the levels of various fats in your blood. These measurements provide essential insights into your heart health and help assess your risk for cardiovascular diseases.

Cholesterol:

Cholesterol is a fat found in the blood. Blood cholesterol at desirable levels is essential for good health, it is used in the production of hormones and digesting fatty foods. Your body makes all the blood cholesterol it needs.

Low Density Lipoproteins:

Low density lipoproteins (LDL) is sometimes called "bad" cholesterol because high levels can lead to plaque buildup in the arteries.

High Density Lipoproteins:

High density lipoproteins (HDL) are often called the "good" cholesterol because they help remove cholesterol from the bloodstream and may reduce the risk of heart disease and stroke.

HDL Cholesterol:

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Cholesterol Range

- **Desirable:** < 5.18 mmol/L
- **Borderline High:** 5.18 - 6.18 mmol/L
- **High:** \geq 6.22 mmol/L

LDL Range

- **Optimal:** < 2.59 mmol/L
- **Near Optimal:** 2.59 - 3.34 mmol/L
- **Borderline High:** 3.37 - 4.11 mmol/L
- **High:** 4.14 - 4.89 mmol/L
- **Very High:** \geq 4.92 mmol/L

HDL Range

- **Poor:** < 1 mmol/L for men and < 1.3 mmol/L for women
- **Better:** 1 - 1.5 mmol/L for men and 1.3 - 1.5 mmol/L for women
- **Best:** > 1.5 mmol/L for both men and women

HDL Cholesterol Range

- **Low (increased risk):** < 1.03 mmol/L for men and < 1.29 mmol/L for women
- **Desirable:** \geq 1.55 mmol/L

Blood Tests (Continued)

Triglycerides:

Triglycerides are a type of fat in your blood that come from food and unused calories. They are the most common type of fat in the body.

Non-HDL Cholesterol:

A measure of the amount of "bad" cholesterol in your blood. It's calculated by subtracting your high-density lipoprotein (HDL) cholesterol from your total cholesterol.

- **Optimal:** < 3.37 mmol/L

HbA1c:

Hemoglobin A1c (HbA1c) is a blood test that measures your average blood sugar (glucose) levels over the past 2-3 months. This test is an essential tool for diagnosing and managing diabetes and pre-diabetes.

Knowing your *HbA1c* level provides valuable insights into your long-term blood sugar control.

Triglycerides Range

- **Normal:** < 1.70 mmol/L
- **Borderline High:** 1.70 - 2.25 mmol/L
- **High:** 2.26 - 5.63 mmol/L
- **Very High:** \geq 5.65 mmol/L

HbA1c Range

- **Normal (below 5.7%):** Indicates healthy blood sugar levels and a lower risk of developing diabetes
- **Pre-diabetes (5.7% - 6.4%):** Suggests a higher risk of developing type 2 diabetes and cardiovascular disease
- **Diabetes (6.5% or higher):** Indicates diabetes



Scored Tests

Pain, depression, anxiety and insomnia are common conditions that can significantly affect an individual's quality of life. These conditions are often interconnected, with one influencing the others, creating a complex challenge for clinicians seeking to improve patient outcomes. The tests we use are standardized and based on current clinical and peer-reviewed research, offering insights into effective management strategies for these symptoms.

GAD-7:

The Generalized Anxiety Disorder questionnaire (GAD-7) is the most commonly used questionnaire to identify the severity of a person's anxiety. Anxiety disorders are characterized by excessive worry and fear, and they frequently co-occur with pain and depression. Anxiety can exacerbate physical pain and interfere with treatment outcomes, further complicating the clinical picture.

PHQ-9:

The Patient Health Questionnaire (PHQ-9) is a multipurpose instrument for screening, diagnosing, monitoring and measuring the severity of depression. Depression is one of the most prevalent mental health disorders globally, with significant effects on both physical and emotional health. It is characterized by persistent feelings of sadness, loss of interest, and a lack of motivation, which can often co-occur with pain, anxiety, and insomnia.

GAD-7 Scores

- **0 - 4:** minimal anxiety
- **5 - 9:** mild anxiety
- **10 - 14:** moderate anxiety
- **15 - 21:** severe anxiety

PHQ-9 Scores

- **0 - 4:** none - minimal, may not need treatment
- **5 - 9:** mild, use clinical judgment about treatment
- **10 - 14:** moderate, use clinical judgment about treatment
- **15 - 19:** moderately severe, treat with antidepressants, psychotherapy or a combination
- **20 - 27:** severe, treat using antidepressants with or without psychotherapy

Scored Tests (Continued)

Pain Scale (BPI):

The Brief Pain Inventory (BPI) indicates the intensity of your pain on a scale of 1 to 10. But there are other factors that should be discussed with your healthcare provider or physiotherapist, like the location and type of sensations you feel. Chronic pain has been associated with reduced physical function and poor quality of life. Living with chronic pain often leads to social isolation, reduced mobility, and emotional distress.

Sleep Score (ESS):

Insomnia, or the inability to fall or stay asleep, is frequently observed in patients with chronic pain, depression, and anxiety. It can exacerbate these conditions, creating a cycle of worsening symptoms. The Epworth Sleepiness Scale (ESS) is often used as a screening tool to identify potential sleep disorders.

ESS Scores

- **0 - 5:** is considered lower normal daytime sleepiness
- **6 - 10:** is considered normal daytime sleepiness
- **11 - 12:** is considered mild excessive daytime sleepiness
- **13 - 15:** is considered moderate excessive daytime sleepiness
- **16 - 24:** is considered severe excessive daytime sleepiness

10 or higher may indicate a need to improve sleep habits, get more sleep, or seek medical attention.

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