

# Fitness Training Test for Women

Get the most out of your training sessions by understanding what your body needs.



Select a health  
screening package



Take a sample



View your results

Whether you engage in high impact training or just keep yourself fit at the gym, knowing your physical limits is essential to getting the most out of your exercise sessions and staying injury free.

The easy-to-use home blood test kit will be sent to your address for you to provide the sample and send it back to our associated laboratory using the **free-post packaging** provided. Our specialists will then analyse your blood and provide you with the results within two days of receipt. You will then be able to log on to the blood results dashboard to view your results and receive professional advice on how to improve your fitness training.

This detailed blood test will analyse your:

- Energy levels
- Hydration
- Immunity levels
- Injury risks
- Liver and kidney functions
- Oxygen intake
- Strength and recovery speeds

It will also pinpoint specific protein and vitamin deficiencies allowing you to tailor your diet and supplements to your body's specific needs.

It is advised that this test is taken first thing in the morning (around 9am) as certain markers will change throughout the day.

This blood test looks at the following biometric markers:

## Energy Markers

- **Vitamin D (25 OH)** – helps to regulate calcium and phosphate in the body which is essential for the development of healthy bones. It therefore plays an essential role in preserving bone health but has also been linked to many other aspects of health including our immune system, muscle function, energy levels and the reduction of inflammation. Unfortunately due to the UK weather, many people have low levels particularly during the winter months.
- **Triiodothyronine (T3)** – T3 is the active form of Thyroxine (T4). Thyroid hormones play an important role in many of the body's functions including helping to regulate the body's metabolism and muscle control.
- **Thyroid Stimulating Hormone (TSH)** – the role of TSH is to regulate the production of hormones (T3 and T4) by the thyroid gland. Thyroid hormones help to control the rate at which your body converts food into

energy. Thyroid imbalance can lead to problems with weight, energy and mood.

- **Testosterone (total)** – plays an important role throughout the body, affecting brain, bone and muscle mass, fat distribution, the vascular system, energy levels, sexual functioning and fertility. Testosterone in men is particularly beneficial in sports which require strength or power and can also help to support bone health and energy levels. Testosterone levels in men will naturally decline with age. High levels in women are associated with Polycystic Ovary Syndrome.
- **Oestradiol (Oestrogen)** – is a steroid hormone and the main form of Oestrogen found in women. Levels will naturally reduce in women with age and will start to decrease during the peri-menopause stage with a large decrease occurring during the menopause. An indication of oestradiol levels can also be useful for men undergoing testosterone replacement therapy.
- **Red Blood Cell (RBC)** – this test is a measure of the number of red cells in the blood. Red blood cells transport oxygen from the lungs to cells throughout the body. If your RBC is low your body is unlikely to be getting the oxygen it needs and which could be caused by nutritional deficiencies.
- **Haemoglobin** – The primary function of haemoglobin is to carry oxygen to the cells throughout the body and return carbon dioxide to the lungs. Improving your haemoglobin can help to improve your organ and tissue functions and increase your overall energy levels.
- **Haematocrit (HCT)** – measures the volume of space in blood which is made up of red blood cells. Haematocrit is routinely measured as part of a full blood count and is often used to check for anaemia.
- **Ferritin** – is a protein in the body which contains iron and is the main form by which iron is stored in the body. The amount of ferritin which is found in the blood reflects the amount of total iron stored within your body.
- **Active B 12** – B 12, together with folate, is part of the B group of complex vitamins. They are not produced by the body so have to be absorbed through diet. B 12 is required for the formation of red blood cells and also has a role to play in nerve health.

## Hormone Markers

- **Thyroxine (T4)** – T4 is one of the main thyroid hormones (the other being T3) which is released into the bloodstream by the thyroid gland. Thyroid hormones have a role to play in a wide range of the body's functions, including the maintenance of healthy bones, muscle control as well as brain development, heart and digestive functions. A thyroxine test is used to check that the thyroid is functioning properly. Problems with the thyroid function are more common in women.
- **Triiodothyronine (T3)** – T3 is the active form of Thyroxine (T4). Thyroid hormones play an important role in many of the body's functions including helping to regulate the body's metabolism and muscle control.
- **Thyroid Stimulating Hormone (TSH)** – the role of TSH is to regulate the production of hormones (T3 and T4) by the thyroid gland. Thyroid hormones help to control the rate at which your body converts food into energy. Thyroid imbalance can lead to problems with weight, energy and mood.
- **Testosterone (total)** – plays an important role throughout the body, affecting brain, bone and muscle mass, fat distribution, the vascular system, energy levels, sexual functioning and fertility. Testosterone in men is particularly beneficial in sports which require strength or power and can also help to support bone health and energy levels. Testosterone levels in men will naturally decline with age. High levels in women are associated with Polycystic Ovary Syndrome.
- **Oestradiol (Oestrogen)** – is a steroid hormone and the main form of Oestrogen found in women. Levels will naturally reduce in women with age and will start to decrease during the peri-menopause stage with a large decrease occurring during the menopause. An indication of oestradiol levels can also be useful for men undergoing testosterone replacement therapy.
- **Prolactin** – is a hormone produced by the pituitary gland. Slight increases can occur as part of a stress reaction. Consistently high levels in men and women can cause suppression of other pituitary hormones

such as FSH and LH. As the main role of prolactin is to produce milk, high levels are expected during breast feeding.

- **Luteinising Hormone (LH)** – plays a key role in the human reproductive system. High or low levels can indicate issues connected with fertility. LH levels rise when women reach the menopause, whereas levels in adult males tends to stay relatively constant throughout their lives.

## Hydration Markers

- **Urea** – is a waste product which is produced by the liver when protein is metabolised, and is removed by the kidneys. Together with creatinine a urea test is used to evaluate kidney function.

## Immunity Markers

- **White Blood Cell Count (WBC)** – are an important part of the body's immune system and help fight infection. WBC is a count of the actual number of white blood cells per volume of blood. Low levels can indicate a weakness in your immune system.
- **Vitamin D (25 OH)** – helps to regulate calcium and phosphate in the body which is essential for the development of healthy bones. It therefore plays an essential role in preserving bone health but has also been linked to many other aspects of health including our immune system, muscle function, energy levels and the reduction of inflammation. Unfortunately due to the UK weather, many people have low levels particularly during the winter months.
- **Cortisol (9am)** – cortisol is a steroid hormone which is produced by the adrenal gland. It helps the body to use sugar and fat which can be converted for energy. It also has an important role to play in stress management as well as reducing inflammation. The level of cortisol in the bloodstream changes throughout the day, being highest in the morning and lowest last thing at night. The timing of the test sample is therefore very important.

## Injury Risk Management

- **Vitamin D (25 OH)** – helps to regulate calcium and phosphate in the body which is essential for the development of healthy bones. It therefore plays an essential role in preserving bone health but has also been linked to many other aspects of health including our immune system, muscle function, energy levels and the reduction of inflammation. Unfortunately due to the UK weather, many people have low levels particularly during the winter months.
- **Testosterone (total)** – plays an important role throughout the body, affecting brain, bone and muscle mass, fat distribution, the vascular system, energy levels, sexual functioning and fertility. Testosterone in men is particularly beneficial in sports which require strength or power and can also help to support bone health and energy levels. Testosterone levels in men will naturally decline with age. High levels in women are associated with Polycystic Ovary Syndrome.
- **Oestradiol (Oestrogen)** – is a steroid hormone and the main form of Oestrogen found in women. Levels will naturally reduce in women with age and will start to decrease during the peri-menopause stage with a large decrease occurring during the menopause. An indication of oestradiol levels can also be useful for men undergoing testosterone replacement therapy.

## Liver and Kidney Function

- **Urea** – is a waste product which is produced by the liver when protein is metabolised, and is removed by

the kidneys. Together with creatinine a urea test is used to evaluate kidney function.

- **eGFR** – is a calculation based on your creatinine levels and is used to evaluate how well your kidneys are working.
- **Creatinine** – is a waste product which is produced by the muscles during the breakdown of creatine. As it is removed from the body by the kidneys, a creatinine test is a good indication of how well the kidneys are functioning.

### Oxygen Carrying Capacity Markers

- **Red Blood Cell (RBC)** – this test is a measure of the number of red cells in the blood. Red blood cells transport oxygen from the lungs to cells throughout the body. If your RBC is low your body is unlikely to be getting the oxygen it needs and which could be caused by nutritional deficiencies.
- **Haemoglobin** – The primary function of haemoglobin is to carry oxygen to the cells throughout the body and return carbon dioxide to the lungs. Improving your haemoglobin can help to improve your organ and tissue functions and increase your overall energy levels.
- **Haematocrit (HCT)** – measures the volume of space in blood which is made up of red blood cells. Haematocrit is routinely measured as part of a full blood count and is often used to check for anaemia.
- **Active B12** – B12, together with folate, is part of the B group of complex vitamins. They are not produced by the body so have to be absorbed through diet. B12 is required for the formation of red blood cells and also has a role to play in nerve health.

### Recovery Markers

- **eGFR** – is a calculation based on your creatinine levels and is used to evaluate how well your kidneys are working.
- **Creatinine** – is a waste product which is produced by the muscles during the breakdown of creatine. As it is removed from the body by the kidneys, a creatinine test is a good indication of how well the kidneys are functioning.
- **Creatine Kinase** – is an enzyme found mainly in the brain, skeletal muscles and heart. It has an important role to play in energy production and muscle contraction. A creatine kinase test is useful in detecting muscle inflammation.
- **Cortisol (9am)** – cortisol is a steroid hormone which is produced by the adrenal gland. It helps the body to use sugar and fat which can be converted for energy. It also has an important role to play in stress management as well as reducing inflammation. The level of cortisol in the bloodstream changes throughout the day, being highest in the morning and lowest last thing at night. The timing of the test sample is therefore very important.

### Strength Markers

- **Vitamin D (25 OH)** – helps to regulate calcium and phosphate in the body which is essential for the development of healthy bones. It therefore plays an essential role in preserving bone health but has also been linked to many other aspects of health including our immune system, muscle function, energy levels and the reduction of inflammation. Unfortunately due to the UK weather, many people have low levels particularly during the winter months.
- **Testosterone (total)** – plays an important role throughout the body, affecting brain, bone and muscle mass, fat distribution, the vascular system, energy levels, sexual functioning and fertility. Testosterone in men is particularly beneficial in sports which require strength or power and can also help to support bone health

and energy levels. Testosterone levels in men will naturally decline with age. High levels in women are associated with Polycystic Ovary Syndrome.

- **Creatine Kinase** – is an enzyme found mainly in the brain, skeletal muscles and heart. It has an important role to play in energy production and muscle contraction. A creatine kinase test is useful in detecting muscle inflammation.

## Training Load Markers

- **White Blood Cell Count (WBC)** – are an important part of the body's immune system and help fight infection. WBC is a count of the actual number of white blood cells per volume of blood. Low levels can indicate a weakness in your immune system.
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