This is your personalized sports report:

This report is a fundamental tool for sports practice, both amateur and professional. You will see your genetic predisposition to, for example, suffer injuries, lower heart rate or your capacity for muscle regeneration.

As usual in our reports, in the first pages you will find an iconographic summary of each of the analyzed values, which we develop more broadly in later pages.

We remind you that any changes you want to make in your diet or your heath treatments should be guided by health professionals. Any doubts you have about any genetic test should be checked against health personnel who are experts in Genetic Diagnosis or Specialized Physicians.

Questions and answers:

Should I make drastic changes in my health management with the data of this test?

No, any changes you want to make in your health should be analyzed by an expert geneticist and the medical specialists. Any doubts you have about any genetic test should be checked against healthcare personnel who are experts in Genetic Diagnosis..

Does it all depend on my genes?

No, our body responds to a lot of conditions. Our genes are certainly an important parameter. Lifestyle, sport, food, and many other circumstances influence our body. Knowing yourself well certainly helps to treat our body in the most appropriate way. And this is what this kind of test are all about: more knowledge.

Are all the analyzed genes listed in the sections?

We include only a sample of the genes that we analyze, some of the sections are determined by the analysis of more genes that we did not indicate in the report. Our algorithms combine your genotypes from the analyzed markers.

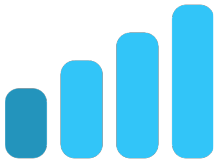
What this report based on?

This test is based on different genetic studies internationally consolidated and accepted by the scientific community. There are certain scientific reports and databases where studies are published when there is a certain level of consensus. Our genetic tests are carried out by applying these studies to your genotype information. In each section you will see some of the studies on which it is based. There are sections where more studies are used than those listed.

The information provided in this report is valid only for research, information and educational uses. It is not valid for clinical or diagnostic use.

Summary:

Sport profile

Power	Resistance	Aerobic capacity
		
Strength	**Cardio and pulmonary capacity**	**Resilience**
		

Summary:

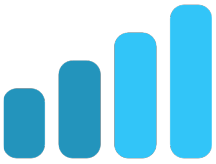
Muscle Profile

Muscular strength

Muscle response to resistance training

Skeletal Muscle Performance

Muscular fatigue



Muscle regeneration capacity

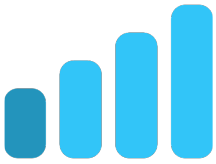
Summary:

Metabolic Profile

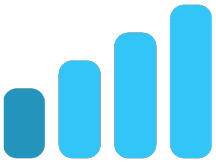
Global benefit of the sport in your body

Benefit of Exercise in Insulin Sensitivity

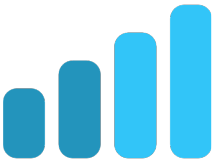
Benefits of Exercise in Cholesterol



Benefit of exercise in body mass index



Metabolic efficiency



Summary:

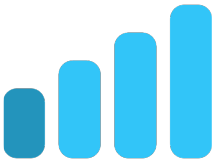
Injury Risk

General risk of injury

Risk of injury to joints

Risk of overload fracture

Risk of ruptured tendons and ligaments



Summary:

Cardiovascular profile

Ability to reduce heart rate

Response of blood pressure to sports

SPORT PROFILE

Power

Muscle power measures the maximum amount of force that can be exerted over a limited period of time. Rapid shrinkage fibers generate a relatively high amount of force over a short period of time. They are characterized by great strength, power and speed, but they fatigue faster. They have a lower capacity to obtain aerobic energy, lower oxygen levels and higher levels of glycogen, so at first they get energy from glycolysis (anaerobic respiration) for muscle contraction.

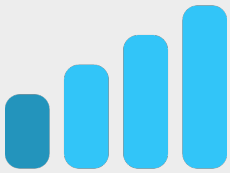
This process is very fast, but it is also quite inefficient to produce energy; in addition, it produces lactic acid that favors the muscular fatigue. This explains why fast twitch fibers tire faster.

It is estimated that power is inherited by 80% depending on the type of specific muscle (isometric strength of the knee, hand strength, elbow flexion). To assess the power predisposition profile, genetic markers have been used that have been associated with power sports.

How is your genetics?

Gene	Your Genotype
ACE	GG
IGF2BP2	GG
NOS3	GG
PPARG	CC
AGT	AG

Status



Your genetic predisposition to stand out in power sports is low.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2658665/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4320608/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827989/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2840709/
https://www.ncbi.nlm.nih.gov/pubmed/20029521

SPORT PROFILE

Resistance

Resistance training is defined as a low intensity activity performed over a long period of time. Muscle endurance measures your ability to repeat an activity for a while without feeling tired.

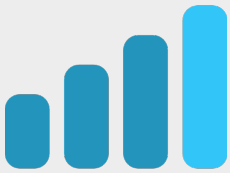
If your muscular structure favors endurance you have the potential to thrive in exercises that take advantage of this ability. The intrinsic ability to perform resistance exercises is influenced by several factors. First, resistance depends on the proportion of slow-twitch fibers of skeletal muscle. They are also known as red fibers because they contain more myoglobin, a protein that stores oxygen, and they get their own energy source, so they can maintain their strength for longer. Second, it has been observed that the best athletes usually have the so-called "marathon genes".

Studies have identified genetic variants associated with a high proportion of these fibers and a high supply of oxygen to muscle tissue.

How is your genetics?

Gene	Your Genotype
PPARGC1	TC
ACE	GG
NFIA-AS2	GG
HIF1A	CC

Status



Your genetic predisposition for endurance sports is intermediate.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/15705733
https://www.ncbi.nlm.nih.gov/pubmed/20066004
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4314597/
https://www.ncbi.nlm.nih.gov/pubmed/20299614
https://www.ncbi.nlm.nih.gov/pubmed/16407699

SPORT PROFILE

Aerobic capacity

Maximum aerobic capacity (or maximum volume of oxygen, VO2max) is the maximum volume of oxygen a athlete's muscles can use for one minute to produce maximum physical effort. This measure reflects the person's aerobic physical condition and determines their potency during prolonged exercise. The benefits of having a good aerobic fitness are low pressure, low cholesterol and less risk of obesity, type 2 diabetes and cardiovascular disease. VO2max is measured in L / min but is more commonly expressed in mL of O2 / kg / min in order to equitably compare athletes whose body mass is different. The absolute values of VO2 max are usually 40-60% higher in men than in women.

Beginning at age 30, our lung capacity begins to decline, and at 50 years may be half. This decrease means that less oxygen enters our cells, which explains why respiration lacks, decreases endurance and increases susceptibility to respiratory diseases with age. Numerous genetic variants have been associated with aerobic capacity.

How is your genetics?

Gene	Your Genotype
NFIA-AS2	GG
RGS18	AG
ACSL1	AG

Status

Your genetic advantage predisposes you to a very good lung capacity.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4314597/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3098655/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3098655/

SPORT PROFILE

Strength

In what implies to the physical condition, we will define the force as the capacity to overcome a resistance with the contraction produced by the muscles, that is to say, with the capacity that they have to perform a work.

The quality of the strength is determined by the muscular structure itself: it depends on the orientation and types of muscle fibers and the length of the muscle; by temperature: muscle contraction is more rapid and potent when the internal temperature is slightly higher than normal; by the osteoarticular system: the force depends on the type of lever that makes the movement; and, finally, of age and sex. Training is another important factor because it improves the factors that influence the level of muscular strength: metabolism and fuel deposits that allow the increase of muscle fiber thickness and the number of myofibrils and the delay in the appearance of muscle fatigue.

In addition, genetic factors have been associated with a greater benefit in increasing strength after training.

How is your genetics?

Gene	Your Genotype
INSIG2	CG

Status

Strength training is less beneficial to people with your genotype, as you are likely to gain fat mass. Moderate training is recommended.

This report is based on these publications:
https://www.ncbi.nlm.nih.gov/pubmed/19105843

SPORT PROFILE

Cardio and pulmonary capacity

Cardiac function has a direct impact on exercise and vice versa. Scientists have shown that regular exercise increases heart capacity and strengthens the heart. This capacity is measured as heart rate, which are the times the heart performs the complete cycle of filling and emptying your cameras in a certain time.

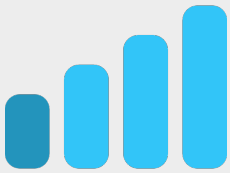
Cardiac capacity decreases with age so it is especially important to maintain and monitor the health of our heart. Pulmonary capacity is the air that the lungs get when inhaled, and influences the body's ability to distribute oxygen to cells, which will be used as an energy source for exercise.

Some people are carriers of genes that make them have a better heart capacity, allowing them to have better strength and strength during exercise. Other variants have been associated with improved lung capacity after training.

How is your genetics?

Gene	Your Genotype
NPY	TT
NOS3	CC
ADRB1	CC
APOE	TT
APOE	TC

Status



Your genetic advantage for developing better heart and lung capacity is low.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/11701704
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5317294/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3099407/
https://www.ncbi.nlm.nih.gov/pubmed/14767871
https://www.ncbi.nlm.nih.gov/pubmed/14767871

MUSCLE PROFILE

Muscular strength

Muscle strength is the amount of force a muscle can exert in a single contraction. Muscles have two types of fibers, fast and slow. Fast twitch fibers provide explosive energy, for example, for weight lifting or speed. Slow-twitch fibers are for longer resistance exercises.

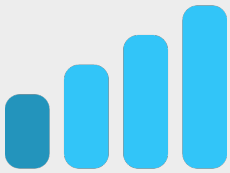
Developing fast-twitch fibers requires aerobic activities, whereas for the development of slow-twitch fibers, anaerobic exercise is required to gain strength. Muscle strength is determined by fast fibers which provide rapid explosions of energy.

Studies with relatives have shown that up to 90% of the variation in muscle mass and up to 60% of variation in muscle strength are heritable. Genetic variations have been associated with muscle strength.

How is your genetics?

Gene	Your Genotype
HFE	CC
IGF1	AG
HIF1A	CC
GDF8	TT
IGF1	TC

Status



You do not have an extra benefit in terms of having greater strength and muscle mass.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696732/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2928925/
https://www.ncbi.nlm.nih.gov/pubmed/20299614
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3024427/
https://www.ncbi.nlm.nih.gov/pubmed/21552154

MUSCLE PROFILE

Muscle response to resistance training

Bodybuilding exercises are recommended in fitness workouts with a duration of a minimum of two days a week. Systematic long-term resistance training increases skeletal muscle size and strength in men and women of different ages, as well as the aerobic capacity of fast twitch fibers.

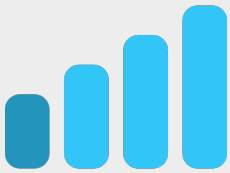
There are studies that show that almost all people benefit from endurance exercises, although the gain in muscle size and strength is highly variable among individuals and depends on gender, age, general health, nutrition and personal genetics.

Several studies have reported association between certain genetic variations and muscle size and strength. Some people gain more strength and muscle size in response to the same training as others.

How is your genetics?

Gene	Your Genotype
BMP2	AA
IL15RA	TC
INSIG2	CG

Status



Your genotype is not associated with a gain in muscle strength gain.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4147943/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2593832/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2646703/

MUSCLE PROFILE

Skeletal Muscle Performance

Muscles such as biceps, pectorals and quadriceps are skeletal muscles that are attached to the skeleton to generate movement. Skeletal muscle is composed of elongated, thin cells, which include all the organelles necessary for cellular functions. More than 90% of the total volume of skeletal muscle cells is composed of muscle proteins, including actin and myosin contractile proteins.

When a muscle cell is activated by a nerve impulse, the interaction between actin and myosin generates a contraction. The total force depends on the sum of all the contractions that occur simultaneously in a muscle cell. Skeletal muscle is one of the three main types of muscles, the other are the heart and smooth muscle. The UCP2 and UCP3 proteins can negatively regulate mitochondrial ATP synthesis (energy that muscles use) and thereby influence physical performance. One study has found that genetic variants in these genes are associated with improved skeletal muscle performance with training.

How is your genetics?

Gene	Your Genotype
UCP2	TC

Status

You present an increase in the efficiency of muscle contraction with training.

This report is based on these publications:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3330832/

MUSCLE PROFILE

Muscular fatigue

Muscle fatigue occurs when muscles can not exert normal force, or when it takes more effort than normal to achieve a desired level of strength. Late-onset muscle pain describes a phenomenon of muscle pain or stiffness that is felt 12-48 h after exercise, particularly when starting a new training program, after a change in sports activity or after a considerable increase in duration or intensity of the exercise.

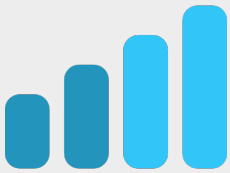
The proteins of an injured muscle are released into the blood. A higher concentration of these proteins means greater damage to muscle fibers and a greater likelihood of muscle fatigue.

In addition to exercise, the genetic condition is another cause of muscle fatigue. There are studies that relate certain genetic variants with a better resistance to muscular fatigue.

How is your genetics?

Gene	Your Genotype
HNF4A	GG
NAT2	AG

Status



The likelihood of your muscles suffering damage and fatigue is average.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/19406499
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4409020/
https://www.ncbi.nlm.nih.gov/pubmed/25675417

MUSCLE PROFILE

Muscle regeneration capacity

Muscles are important for exercise and, after it, need between 24 and 48 hours to be repaired and rebuilt. Making them work again too soon simply leads to tissue breakdown.

Are you one of those people who needs a lot of time to recover after a muscle damage? Prolonged and tiring exercise such as high intensity training activates inflammatory factors. Genetic variations in several genes improve the inflammatory response that allows for a slow repair of muscle damage after exercise.

A person with a high predisposition to inflammation will benefit from less frequent exercise and longer recovery periods. If the body is not fully recovered there could be damage due to overexertion and excessive training. This is particularly important for high intensity athletes and bodybuilders.

How is your genetics?

Gene	Your Genotype
IL1B	GG
IL1B	AA

Status

Depending on your genotype, your muscle regeneration capacity is low, therefore you will need longer recovery periods.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1665272/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1665272/

METABOLIC PROFILE

Global benefit of the sport in your body

The benefits of exercise and regular physical activity are well known, and all people, regardless of age, sex or physical ability can notice its benefits. Exercise can prevent or help maintain excess weight, as well as help prevent many health problems such as heart attacks, metabolic syndrome, type 2 diabetes, depression, various cancers and arthritis.

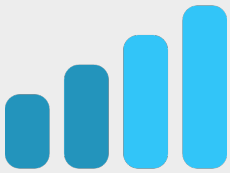
Exercise releases oxygen and nutrients to tissues and helps the cardiovascular system to work more efficiently. With better health of the heart and lungs the body has more energy.

Some people experience the benefits of exercise more quickly than others, while the latter also require dietary changes. People with certain genetic variants experience rapid results to lower cholesterol, triglycerides and blood pressure.

How is your genetics?

Gene	Your Genotype
CETP	CC
BDNF	CC

Status



The benefits of the exercise you will experience are the same as the general population.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/21252145
https://www.ncbi.nlm.nih.gov/pubmed/27453731
https://www.ncbi.nlm.nih.gov/pubmed/22554780

METABOLIC PROFILE

Benefit of Exercise in Insulin Sensitivity

Insulin helps control changes in glucose levels (commonly known as sugar) in the body. Insulin sensitivity refers to the body's ability to respond to these changes.

Having a greater sensitivity to insulin means that the body has a better ability to process glucose. Insulin resistance, on the other hand, is an alteration that impedes the proper regulation of glucose, and is associated with obesity and type 2 diabetes. Many people can benefit from exercise to increase insulin sensitivity.

According to one study, people with the beneficial genotype in a marker of the LIPC gene show an increased benefit to increase insulin sensitivity.

How is your genetics?

Gene	Your Genotype
LIPC	TC

Status

You gain increased benefit from exercise to increase insulin sensitivity. This is especially important if you are diabetic, are overweight or have metabolic syndrome.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/15983229

METABOLIC PROFILE

Benefits of Exercise in Cholesterol

One of the benefits of exercise is the improvement in cholesterol levels. HDL cholesterol is known as good cholesterol and having high levels of HDL is beneficial. Many people can improve their HDL levels with exercise.

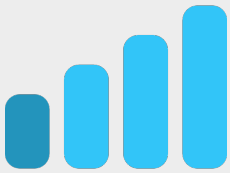
Research has shown that exercise stimulates enzymes that help move bad cholesterol from the blood to the liver, allowing it to be excreted with bile. It has also been stipulated that exercise increases the size of protein particles that carry cholesterol through the blood, reducing the possibility that small particles clog arteries.

Individuals with certain genetic variants will do well to increase their good cholesterol levels while exercising, while carriers of other genetic variants are less likely to lower their bad cholesterol levels alone with exercise.

How is your genetics?

Gene	Your Genotype
CETP	CC
PPARD	TT

Status



Your genotype is not associated with an extra benefit to regulate your cholesterol levels with exercise.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/21252145
https://www.ncbi.nlm.nih.gov/pubmed/17259439

METABOLIC PROFILE

Benefit of exercise in body mass index

Exercise is part of weight loss plans and is a crucial tool for maintaining a healthy weight. Physical activity is beneficial for all people, regardless of their genetics, but exercise is especially recommended for people with an increased risk of being overweight.

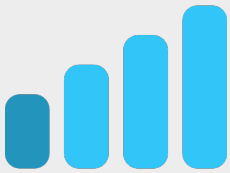
People with a certain variant in the genetic marker of the FTO gene are more likely to be overweight, an increase in body mass index and waist circumference. However, a large-scale study has shown that the genetic susceptibility to obesity-induced variant in the FTO gene can change by adopting an active lifestyle.

In fact, people who are more susceptible to obesity experience greater weight loss by exercising at moderate intensity.

How is your genetics?

Gene	Your Genotype
FTO	GG
FTO	CC

Status



Your genotype is not associated with an extra benefit of exercise to lose weight.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/19553294
https://www.ncbi.nlm.nih.gov/pubmed/19798072

INJURY RISK

General risk of injury

Exercise has numerous health benefits, but we must be careful about injuries that occur when we do exercises incorrectly. Although injury is always a risk when we do any exercise, some people are more likely to injure themselves than others and in part because of their genetics.

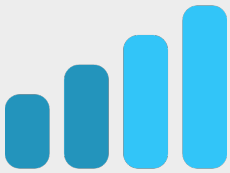
Scientific evidence has shown that certain genetic variations can affect the risk of injury. People with an increased risk should adjust their training plan.

The genetic risk of injury is calculated taking into account variations in the genes related to general inflammation, since when suffering from a soft tissue injury levels of inflammation may influence recovery. This information allows you to get recommendations on which exercises to do and which to avoid.

How is your genetics?

Gene	Your Genotype
GDF5	GG
COL1A1	AC
IL6	GG
CRP	CC

Status



Your genetic characteristics make you moderately vulnerable to tendon, ligament and muscle injuries.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/20360039
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5432363/
https://www.ncbi.nlm.nih.gov/pubmed/18758806/
https://www.ncbi.nlm.nih.gov/pubmed/24862635
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5135050/

INJURY RISK

Risk of injury to joints

Many sports-related injuries involve joint damage. The most common are wrist or ankle sprains, excessive elbow extension, or damage to the knee ligaments.

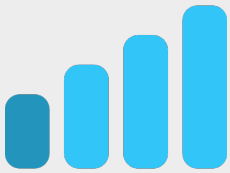
When exercising you have a higher risk of injury from excessive use of joints, but you can strengthen and avoid injury by doing the exercise correctly and doing stretching. The risk of joint damage is associated with an increased genetic predisposition to osteoarthritis.

Knowing personal risk is important to adjust the duration and intensity of training sessions. Sports and high-impact activities can lead to cartilage injuries and damage to the joints. Your risk of injury is calculated on genetic variations that are associated with joint problems.

How is your genetics?

Gene	Your Genotype
GNL3	AG
FTO	TT
SUPT3H	AA
IL1A	GG

Status



You have a low chance of injuring your joints.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/22763110
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4251538/
https://www.ncbi.nlm.nih.gov/pubmed/22763110
https://www.ncbi.nlm.nih.gov/pubmed/23216199
https://www.ncbi.nlm.nih.gov/pubmed/17471097

INJURY RISK

Risk of overload fracture

Overload fractures are small cracks in the bone caused by repetitive force or repetitive movements, such as running long distances or jumping repeatedly. They can also be caused by normal use of a weakened bone.

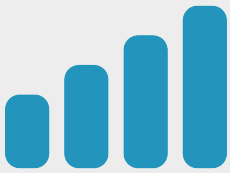
Everyone may have an overload fracture, but some people have a greater predisposition, which is associated with lower bone density. Overload fracture is a common injury in athletes and affects up to 20% of athletes, particularly women. The main risk of overload fracture is the bone density that has a genetic component (up to 85% of the variability is explained by genetic variations).

Using information from various genetic variants, the risk of overload fracture is estimated. Some variations increase risk while having a protective role.

How is your genetics?

Gene	Your Genotype
FUBP3	AG
RIN3	CC
C17ORF5	AA
MEPE	TT
ZBTB40	GG

Status



Presentas un riesgo alto de tener fracturas por sobrecarga.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/24945404
https://www.ncbi.nlm.nih.gov/pubmed/24945404
https://www.ncbi.nlm.nih.gov/pubmed/22504420
https://www.ncbi.nlm.nih.gov/pubmed/22504420
https://www.ncbi.nlm.nih.gov/pubmed/22504420

INJURY RISK

Risk of ruptured tendons and ligaments

The ligaments are designed to stabilize the joints. Strong tendons and ligaments minimize injuries, although overuse induces changes that make them vulnerable.

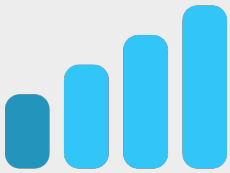
Anterior cruciate ligament (ACL) tears are one of the most severe injuries and are very common among high intensity athletes where there is a sudden deceleration, jumps and advances while the knee is flexed. ACL injuries usually occur along with damage to other structures of the knee, such as articular cartilage, meniscus or other ligaments. On the other hand, Achilles tendon injuries are a major obstacle to any athlete's performance; they affect athletes in a wide variety of sports (up to 20% of runners) and can often take months to heal.

Individuals with favorable genetic variations may have stronger ligaments and tendons than the general population, allowing them to decrease their risk of injury. Knowing your genetic susceptibility to specific injuries will help you customize exercise and choose prevention strategies.

How is your genetics?

Gene	Your Genotype
COL1A1	AC
MMP3	TT
GDF5	GG
COL12A1	TT

Status



You have a low probability of suffering ligament and tendon injuries associated with the sport.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5432363/
https://www.ncbi.nlm.nih.gov/pubmed/19042922
https://www.ncbi.nlm.nih.gov/pubmed/20360039
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5115259/
https://www.ncbi.nlm.nih.gov/pubmed/25073002

CARDIOVASCULAR PROFILE

Ability to reduce heart rate

Heart rate (heartbeats or heartbeats) is generally used as a measure to regulate exercise intensity and monitor your progress with the intention that your heart rate will decrease substantially with exercise.

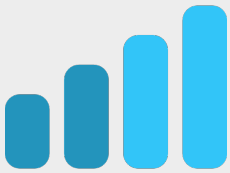
Regular physical activity improves cardiac function and various risk factors. However, the cardiovascular benefits of physical activity are not the same in all individuals. If your body has a low response to exercise, the expected decrease in heart rate may not occur, which is important to know not to cause unnecessary stress on the heart.

A slow recovery of the heart pulse after exercise is associated with an increase in cardiovascular problems. While heart rate during exercise is known to decrease in response to regular exercise, recovery after exercise is considered a risk factor. Genetic variation largely explains interindividual differences.

How is your genetics?

Gene	Your Genotype
CHRM2	AG
CHRM2	TA
ADRB1	AG

Status



Your response to the exercise to decrease the pulsations is intermediate, that is, you recover your pulse just like the rest of the population.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/16501017
https://www.ncbi.nlm.nih.gov/pubmed/16501017
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556937/

CARDIOVASCULAR PROFILE

Response of blood pressure to sports

High blood pressure, known as hypertension, is a common health issue. It is estimated that most people will have hypertension at some point in their life.

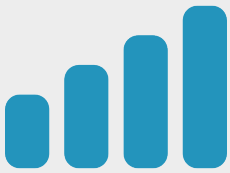
Exercise has been shown to lower blood pressure. In fact, aerobic training is generally recommended as a therapy to prevent, treat, and control hypertension. An hour and a half of low-intensity aerobic exercise helps to lower blood pressure. There is great variability in the interindividual response to the antihypertensive effect of exercise, and much of this variation is explained by genetic predisposition.

People with a tendency to increase the response to hypertension decrease their blood pressure more quickly than the average population. For these people the benefits of 30 minutes of exercise a day are more noticeable than for the general population.

How is your genetics?

Gene	Your Genotype
EDN1	TG
NOS3	GG
GNAS	TC
ADD1	TG

Status



Your blood pressure decreases faster with exercise than in the rest of the population.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/17938376
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2714087/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681122/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681122/

METABOLIC PROFILE

Metabolic efficiency

Metabolism are the chemical processes that the body undergoes to convert food into energy, is a concept that is related to the way in which each body makes of those nutrients.

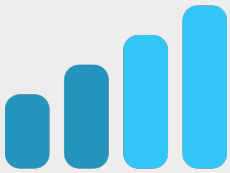
Physical fitness is a very complex phenotype influenced by numerous genetic and environmental factors that contribute to interindividual variation. Sports genomics studies the genetic components that determine sports performance.

Variations in various genes play an important role in responding to different types of physical activity, these genes have physiological impact on sports performance. Some genes analyzed are involved in the metabolism of fatty acids whose expression can improve the oxidative capacity of skeletal muscle during exercise, ie different variants result in a better or less efficient to obtain energy from fatty acids and other nutrients .

How is your genetics?

Gene	Your Genotype
AMPD1	GG
PPARA	GG
ADRB2	GG
PPARD	TT
PPARGC1	TC

Status



The efficiency of your metabolism is intermediate, according to your genetic results.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pubmed/20044476
https://www.ncbi.nlm.nih.gov/pubmed/19666693
https://www.ncbi.nlm.nih.gov/pubmed/19666693
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4266416/
https://www.ncbi.nlm.nih.gov/pubmed/20044476

SPORT PROFILE

Resilience

Prolonged exercise involves muscle lengthening and may result in structural muscle disruption, deterioration of the excitation-contraction process, inflammation, and breakdown of muscle proteins.

This process is known as exercise-induced muscle damage, and although a certain amount of muscle damage is required for adaptation to occur, excessive damage or inadequate recovery of muscle damage may increase the risk of injury.

After performing physical exercise, some people recover quickly and are ready to make a physical effort again after a brief rest. Other people do not recover so quickly, they need a longer rest time. Research has shown that certain genetic variants are associated with a slower recovery after hard exercise. People with these markers should take special care of their training plan.

How is your genetics?

Gene	Your Genotype
IL6	GG
CRP	CC
SOD2	GG

Status

Your genotype is associated with high levels of inflammation and low levels of antioxidants, which predisposes you to a slower recovery after exercise.

This report is based on these publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4983298/
https://www.ncbi.nlm.nih.gov/pubmed/24862635
https://www.ncbi.nlm.nih.gov/pubmed/20082738
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5135050/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4880859/