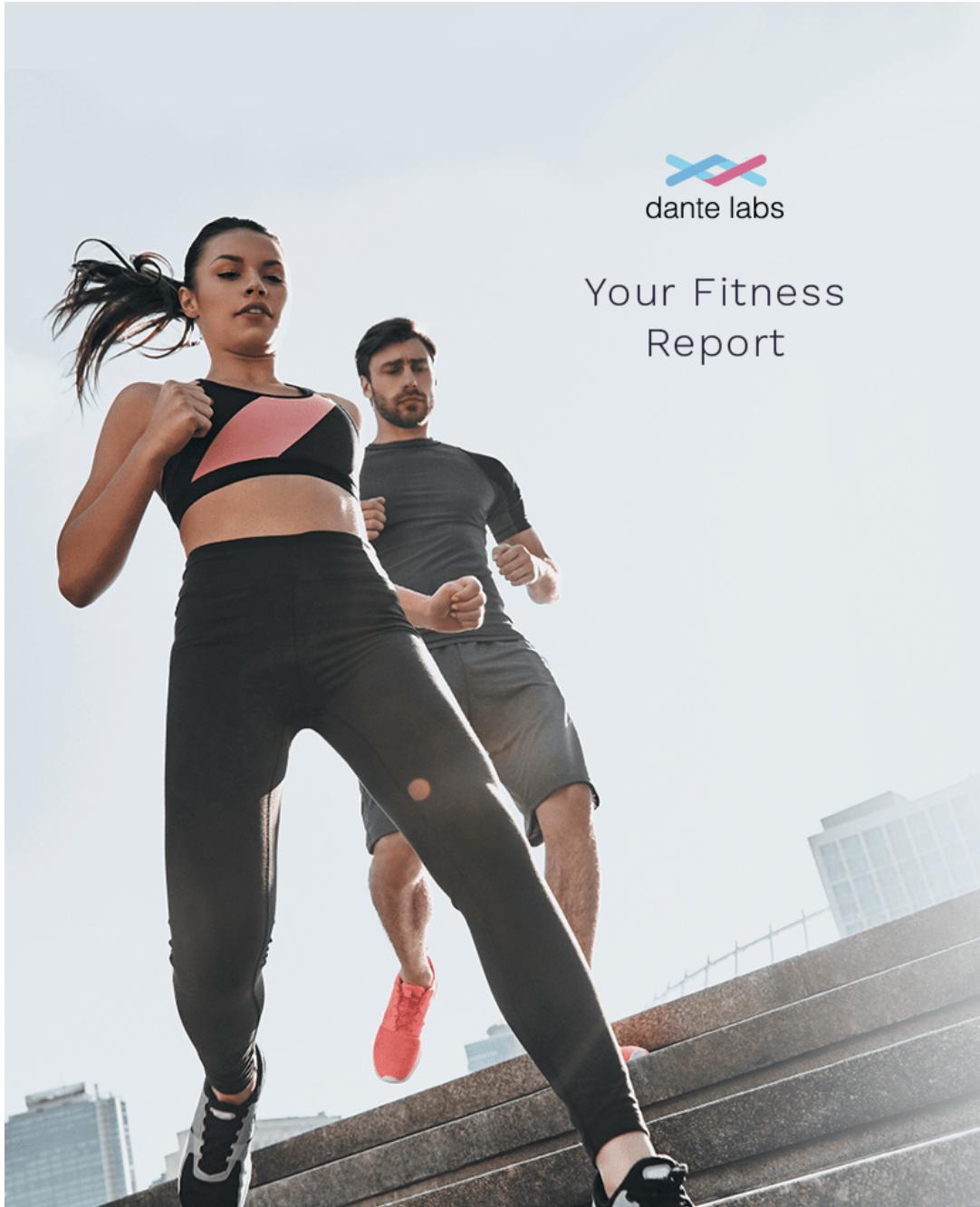




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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959





INTRODUCTION

This document is your fitness report, which is a straightforward and non-technical presentation of the results from your Dante Labs Fitness Test. The insights obtained from learning about your genes may enable you, in partnership with your personal trainer, to formulate a plan to optimize your training regime and your diet, to live a longer, more vibrant life. Genetic variants are differences in DNA between people. Our reports tell you how specific genetic variants in your DNA can affect your physical aptitude and metabolism.

It is always suggested to discuss your report with your personal trainer to formulate an effective and healthy training regime.

For more information, please visit our website at <https://www.dantelabs.com/> and <https://www.dantelabs.com/pages/faq>

QUICK SUMMARY

TRAINING	
CONDITION NAME	MAIN MESSAGE
Endurance Workout	People with your genetic profile are likely to receive enhanced health benefits from an endurance workout.
Strength Workout	People with your genetic profile are likely to receive less benefits from a strength workout.
Muscle Strength	People with your genetic profile are predisposed to have high muscle strength.
Physical Activity in Weight Loss	People with your genetic profile are predisposed to being overweight.
Blood Pressure Response to Physical Activity	People with your genetic profile are likely to have normal blood pressure levels, even with low exercise habits.
HDL (good) Cholesterol Response to Physical Activity	People with your genetic profile are likely to have an enhanced benefit in their HDL levels through exercise.
Loss of Body Fat Response to Physical Activity	People with your genetic profile are likely to not have any enhanced benefits from exercise to lose body fat.
Insulin Sensitivity Response to Physical Activity	People with your genetic profile are likely to have an enhanced insulin sensitivity in response to exercise.
Post Exercise Recovery	People with your genetic profile are likely to need longer recovery times post exercise.
Increase of glucose uptake in response to exercise	People with your genetic profile are likely to have an increased glucose uptake in muscle fiber in response to exercise.
Sprint	People with your genetic profile are likely to have an increased ability to sprint.
Interaction between LDL cholesterol levels and physical activity	People with your genetic profile are likely to show a regular reduction of LDL levels in response to physical activity.
Hand Grip Strength	People with your genetic profile tend to have an increased grip ability following physical activity.
Pulse at rest	People with your genetic profile are likely to have an increased diastolic blood pressure at rest.
Increased heart rate in response to exercise	People with your genetic profile are likely to have a regular increase in heart rate in response to exercise.
Heart rate response to post-recovery exercise	People with your genetic profile are likely to have a regular heart rate reduction during recovery.
Predisposition to moderate to vigorous physical activity levels	People with your genetic profile are likely to have a low predisposition to benefit from vigorous physical activity levels.



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TRAINING	
CONDITION NAME	MAIN MESSAGE
Predisposition to intense sports	People with your genetic profile are likely to have a normal predisposition to benefit from intensive sports.
Prepared for speed sports	People with your genetic profile are likely to have a normal propensity to benefit from speed sports.
Cognitive Benefits (high motor coordination)	People with your genetic profile are likely to receive cognitive benefits for motor coordination from physical activity.
Reaction time (reflexes)	People with your genetic profile are likely to have a regular reflex response.
Pace and variability of gait	People with your genetic profile are likely to walk at a steady pace.
World-class athletic resistance	People with your genetic profile are likely to have a regular level of physical endurance.
Equilibrium	People with your genetic profile are likely to have a good equilibrium.
Agility	People with your genetic profile are likely to have good agility.
Precision	People with your genetic profile have low eyesight precision.
Insufficiency of experiential learning	People with your genetic profile are likely to have a good ability for experiential learning.
Impulsivity	People with your genetic profile are likely to have a higher tendency to act impulsively.
Leadership	People with your genetic profile are likely to have lower leadership abilities.
Response to Anger	People with your genetic profile are likely to have a good ability to handle feelings of anger.
Optimism	People with your genetic profile are predisposed to have a good sense of optimism.
Combative personality	People with your genetic profile are likely to have a lower tendency to have a combative personality.
Athletic difficulties due to reduced heart rate	People with your genetic profile are likely to have a lower heart rate.
Muscle response to resistance training	People with your genetic profile are likely to have good muscle response to resistance training.
Skeletal musculature performance	People with your genetic profile are likely to have an enhanced muscular performance.
Percentage of fibers that make up the muscle: white fibers	People with your genetic profile are likely to have a regular white muscle fiber percentage.
Percentage of fibers that make up the muscle: red fibers	People with your genetic profile are likely to have an average red muscle fiber percentage.
Respiratory capacity	People with your genetic profile are likely to have a regular respiratory capacity.
METABOLISM	
CONDITION NAME	MAIN MESSAGE
Aerobic metabolism	People with your genetic profile are likely to have a reduced oxygen consumption capacity.
Sodium Levels	People with your genetic profile are likely to have a low risk factor for elevated blood pressure in response to sodium uptake.
Calcium Levels	People with your genetic profile are likely to show a lower blood calcium level compared to the indicated standard range.
Body mass index	People with your genetic profile are not predisposed to have a tendency to become overweight.
Osmotic stress	People with your genetic profile are likely to have lower osmotic stress.
Body energy expenditure (24 hours)	People with your genetic profile are likely to have a regular metabolic rate.
Metabolism at rest	People with your genetic profile are likely to have regular catalytic rate at rest.



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METABOLISM	
CONDITION NAME	MAIN MESSAGE
Lean mass	People with your genetic profile are likely to have a reduced lean mass.
Lipid metabolism disorders	People with your genetic profile are likely to have a good blood cholesterol level.
Energy expenditure	People with your genetic profile are likely to have a normal consumption of energy.
Energy supply	People with your genetic profile are likely to have greater energy intake.
Metabolism of essential amino acids	People with your genetic profile are likely to have a normal metabolism of essential amino acids.
Metabolism of branched amino acids	People with your genetic profile are likely to have high metabolism of branched amino acids.
Arginine metabolism	People with your genetic profile are likely to have a normal metabolism of Arginine.
Ornithine metabolism	People with your genetic profile are likely to have a normal metabolism of Ornithine.
Hydroxy methyl butyrate (HMB) metabolism	People with your genetic profile are likely to have an altered Hydroxy methyl butyrate (HMB) metabolism.
Phosphatidylserine metabolism	People with your genetic profile are likely to have a regular metabolism of Phosphatidylserine.
Creatinine metabolism	People with your genetic profile are likely to have an altered Creatinine metabolism.
L-glutamine metabolism	People with your genetic profile are likely to have a normal metabolism of L-glutamine.
Spirulina metabolism	People with your genetic profile are likely to have altered Spirulina metabolism.
Anaerobic metabolism	People with your genetic profile are likely to have an increased anaerobic metabolism.
Lactacyd metabolism	People with your genetic profile are likely to have a regular metabolism of Lactacyd.
Metabolism of unbranched Carbohydrates	People with your genetic profile are likely to have a normal metabolism of unbranched Carbohydrates.
Folate Metabolism	People with your genetic profile are likely to have a lower metabolism of folate.
Glutathione metabolism	People with your genetic profile are likely to have a normal metabolism of glutathione.
Deficiency Of Colina	People with your genetic profile are likely not to have a tendency for choline deficiency.
Coenzyme Q10 deficiency	People with your genetic profile are likely not to have a Coenzyme Q10 deficiency.
Histamine intolerance	People with your genetic profile are likely to not have histamine intolerance.
Growth potential of lean mass	People with your genetic profile are likely to have a good growth potential of lean mass.
DIET	
CONDITION NAME	MAIN MESSAGE
Potassium balance (K)	People with your genetic profile are likely to have a decreased intracellular concentration of potassium.
Creatine kinase	People with your genetic profile are likely to have a costant creatine kinase level after racing.
Waist-hip ratio adjusted for body mass index	People with your genetic profile are likely to have a greater distribution of body fat.
Waist-hip ratio (energy interaction with the diet)	People with your genetic profile are likely to have a typical distribution of body fat in response to diet.
Body mass index (non-smoking vs. smokers interaction)	People with your genetic profile are likely to have an increase in body mass index in response to cigarette smoking.
Subcutaneous adipose tissue	People with your genetic profile are likely to have a reduced accumulation of subcutaneous adipose tissue.



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DIET

CONDITION NAME	MAIN MESSAGE
Waist circumference adjusted for body mass index	People with your genetic profile tend to have a smaller waist circumference than average.
Obesity in the absence of metabolic diseases	People with your genetic profile have a greater tendency to become obese.
Taking dietary macronutrients	People with your genetic profile tend to lose weight by taking personalised dietary macronutrients.
Postprandial response of triglycerides to high-fat diet meals	People with your genetic profile tend to have a higher plasma fat concentration.
Magnesium balance (Mg)	People with your genetic profile are likely to have a normal Magnesium level.
Balance of sodium / potassium ratio (Na/K)	People with your genetic profile are likely to have a high sodium/potassium ratio.
Phosphorus balance (Ph)	People with your genetic profile have a tendency to have altered phosphorus levels.
Iron balance (Fe)	People with your genetic profile are likely to have altered iron levels.
Zinc balance (Zn)	People with your genetic profile are likely to have a regular zinc level.
Vitamin A metabolism	People with your genetic profile are likely to have a regular Vitamin A metabolism.
Vitamin B2 metabolism	People with your genetic profile are likely to have a higher Vitamin B2 metabolism.
Vitamin C metabolism	People with your genetic profile are likely to have a higher Vitamin C metabolism.
Vitamin D metabolism	People with your genetic profile are likely to have a regular vitamin D metabolism.
Vitamin E metabolism	People with your genetic profile have a tendency to have a higher Vitamin E metabolism.
Vitamin B12 metabolism	People with your genetic profile are likely to have a lower Vitamin B12 metabolism.
Metabolism of Omega 3	People with your genetic profile are likely to have a higher Omega-3 metabolism.

INJURIES

CONDITION NAME	MAIN MESSAGE
Tendinopathy	People with your genetic profile have an increased likelihood of getting tendonitis.
Sport Injury Risk	People with your genetic profile are likely to have a regular tendency to incur in sport injuries.
Cruciate ligament/anterior Cruciate ligament injuries	People with your genetic profile likely have a high risk factor for anterior cruciate ligament injuries.
Carpal tunnel syndrome	People with your genetic profile are likely to have a lower tendency to develop carpal tunnel syndrome.
Shoulder dislocation	People with your genetic profile likely have a regular tendency to dislocate their shoulder easily.
Stress fracture period prevalence	People with your genetic profile are likely to have a lower tendency to develop stress fractures.
Rotator cuff disease	People with your genetic profile are likely to have regular susceptibility to rotator cuff disease.
Muscle Cramps	People with your genetic profile are likely to have an increased risk of incurring muscle cramps following intensive exercise.
Exercise-induced myopathy	People with your genetic profile are likely to have a low tendency to experience myopathy.
Quadriceps strength	People with your genetic profile are likely to increase quadriceps strength easier during workouts.
Joint mobility	People with your genetic profile have a lower range of joint motion and less joint laxity and flexibility.
Predisposition to tendinopathies	People with your genetic profile are likely to have a low predisposition to tendonitis and other tendinopathies.



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INJURIES	
CONDITION NAME	MAIN MESSAGE
Predisposition to the development of inguinal stress hernias	People with your genetic profile are likely to have a low predisposition for inguinal stress hernias.
Risk of suffering muscle damage	People with your genetic profile are likely to have a regular risk of suffering muscle damage.
Propensity to the development of muscle pain	People with your genetic profile are likely to have a normal propensity to feel muscle pain.
Slow muscle repair	People with your genetic profile are likely to have a good muscle repair ability.
Stress fracture	People with your genetic profile are likely to have a low tendency to get stress fractures.
Joint fragility	People with your genetic profile are likely to have an increased chance of joint fragility.
Propensity to the development of arthritic problems	People with your genetic profile are likely to have an enhanced propensity to develop arthritic problems.



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ENDURANCE WORKOUT

RESULTS



An Endurance Workout is a type of training that is focused on exercises of a longer duration that are performed with moderate intensity. Many people will benefit from a combination of endurance, high intensity and resistance exercises. People with a C/T or T/T genotype on the genetic variant rs2016520 of the PPARD gene, are associated with receiving an "Enhanced Benefit" from endurance training programmes, while the C/C genotype is likely to receive a "Normal Benefit." The studies that were used to calculate your result tested responses to a 20-week endurance training programme. This result can be used to help tailor your exercise routine. In order to develop the best training programme that fits with your genetic predisposition, always consult your physician or healthcare provider.

People with your genetic profile are likely to receive enhanced health benefits from an endurance workout.

We recommend that you focus your attention on resistance exercises, as the benefits you will receive will be substantial. Activities such as mid-long distance walking, jogging and bicycling may help you maintain your performance level.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PPARD	rs2016520	TT



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STRENGTH WORKOUT

RESULTS



A strength Workout can be described as exercises that incorporate the use of opposing forces to build muscles. The possible outcomes in this report are "Beneficial" and "Less Beneficial." In a small study of young adult men, those with the C/G or C/C genotypes for the rs7566605 of the INSIG2 gene were more likely to experience increased fat volume after participating in 12 weeks of resistance training, and thus strength training was "Less Beneficial". This association has not been identified in women.

People with your genetic profile are likely to receive less benefits from a strength workout.

We recommend moderate strength training in order to not surpass the limits of your muscles.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
INSIG2	rs7566605	CC



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MUSCLE STRENGTH

RESULTS



The so-called "sprinter gene" refers to the functional version of the ACTN3 gene, which contains information for making a protein found in fast-twitch muscle fibers. The protein and the fast-twitch muscle fibers are important in generating explosive bursts of force. This is why the functional version of ACTN3 is also seen with high frequencies in other elite power-oriented athletes, such as weightlifters. About 80% of people have at least one functional copy of the ACTN3 gene, which can lead to enhanced muscle power under the T/C or C/C genotype for the rs1815739. However, having functional ACTN3 is only one of a myriad of genetic and non-genetic factors that contribute to the success of elite athletes. The remaining 20% of people, with the T/T genotype of ACTN3, may have less muscle power and are less likely to be world-class sprinters or weightlifters, but their chance to excel may not be affected in sports that require other types of body performance, such as endurance and nimbleness.

People with your genetic profile are predisposed to have high muscle strength.

We recommend specific workouts for muscle power that can significantly help you increase performance in a successful way. A certified personal trainer or a physical therapist can design a programme tailored to your needs and abilities. In this way, you'll get the results you want without risking muscle strains and ligament tears.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ACTN3	rs1815739	TC



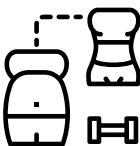
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PHYSICAL ACTIVITY IN WEIGHT LOSS

RESULTS



Exercise is a large component of a healthy lifestyle, as it is a crucial tool for weight control. The possible outcomes in this report are "Exercise Strongly Recommended" and "Exercise Recommended." If your report shows "Exercise Strongly Recommended," your genotype has been shown to be associated with a tendency to be overweight, and exercise is strongly recommended for you. If your report shows "Exercise Recommended", you have one less risk factor for being overweight. However, this should not be taken as an incentive not to exercise, because being physically active is beneficial to everyone regardless of genetic makeup. People with the "Exercise Strongly Recommended" outcome contain a specific variant in the genetic marker rs1121890 (G/A) of the FTO gene, which has been shown to be associated with increased body mass index (BMI) and waistline. However, a large study showed that people who have this variant could reduce their propensity to increase BMI by being physically active.

People with your genetic profile are predisposed to being overweight.

We strongly recommend regular exercise and an active lifestyle. Asking an expert's advice on a personalised diet and exercise plan is the best way to keep the tendency to gain weight under control.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
FTO	rs1121980	AA



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BLOOD PRESSURE RESPONSE TO PHYSICAL ACTIVITY

RESULTS



High blood pressure, also known as hypertension, is a common health issue. It has been estimated that a majority of people will get hypertension when they are older. A genetic variant in the EDN1 gene (rs5370) has been shown to increase the likelihood of hypertension in people who were low in cardiorespiratory fitness, which refers to the ability of the heart and lungs to provide muscles with oxygen for physical activity. This genetic variant did not have an effect on people who were high in cardiorespiratory fitness. If you have this variant, your result is "Exercise Strongly Recommended," since you may need to exercise to reduce your chances of hypertension. If you do not have the variant T, your result is "Exercise Recommended," since exercise is still the right decision to manage other risk factors for high blood pressure you may have. Exercise is important to help you manage your blood pressure.

People with your genetic profile are likely to have normal blood pressure levels, even with low exercise habits.

Despite the fact that you have a favourable genetic profile, we still recommend embracing a healthy lifestyle that includes regular exercise to not incur high blood pressure levels



SCIENTIFIC DETAILS

Gene	rsID	Genotype
EDN1	rs5370	GG



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HDL (GOOD) CHOLESTEROL RESPONSE TO PHYSICAL ACTIVITY

RESULTS



One of the health benefits of exercise can be the improvement of your cholesterol levels. HDL cholesterol is known as the good cholesterol, and having more HDL is beneficial. Most people can improve their HDL levels through exercise. In the Heritage Family Study, people with the C/T and T/T genotypes for the genetic variant rs2076167 of the PPARD gene were more likely to have an "Enhanced Benefit" in their HDL levels by exercising. People with "Normal Benefit" may also increase their HDL levels by exercising, but may not experience an enhanced effect.

People with your genetic profile are likely to have an enhanced benefit in their HDL levels through exercise.

We recommend that you embrace a sporty lifestyle as it will lead to great health benefits, in particular for maintaining HDL levels.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PPARD	rs2076167	TT



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LOSS OF BODY FAT RESPONSE TO PHYSICAL ACTIVITY

RESULTS



People with a specific genotype in the variant rs328 of the LPL gene are predisposed to have an "Enhanced Benefit" from exercise to lose body fat. If you have the "Normal Benefit" genotype (C/C), you will still experience fat reduction through exercise, but it might take more effort. These effects are evidenced by a study based on women who participated in a 20-week endurance training programme. This association has not been identified in men.

People with your genetic profile are likely to not have any enhanced benefits from exercise to lose body fat.

A sporty lifestyle is still strongly recommended as a favourite method for weight loss. Keep up intense workout levels as these will favour the consumption of body fat mass.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
LPL	rs328	CC



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INSULIN SENSITIVITY RESPONSE TO PHYSICAL ACTIVITY

RESULTS



Insulin in your body helps control your response to glucose, commonly known as sugar. Having an increased insulin sensitivity means that the body has a better ability to process sugar. The opposite of insulin sensitivity is called insulin resistance, which is linked to obesity and type 2 diabetes. Most people have a beneficial response to exercise, resulting in increased insulin sensitivity. According to a study, people with C/C or C/T genotypes for the variants rs1800588 in the LIPC gene, showed an "Enhanced Benefit," compared to those with a T/T genotype.

People with your genetic profile are likely to have an enhanced insulin sensitivity in response to exercise.

We recommend an active and sporty lifestyle in order to maximise your predisposition to process sugars well and your predisposition to increase insulin sensitivity with physical activity.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
LIPC	rs1800588	CC



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POST EXERCISE RECOVERY

RESULTS



Post-exercise fatigue is a physiological sensation. Some people are lucky enough to recover very quickly and are ready to exert themselves again after very little rest, whereas others don't seem to bounce back quite as fast, needing a longer break between bouts of hard training. Research has shown that certain genetic variations incur a delayed recovery from hard exercise training; those with these markers (C/C genotype for rs1205 of the CRP gene) should take extra care with their training plan and nutrition strategy, compared to the C/T, T/T genotype.

People with your genetic profile are likely to need longer recovery times post exercise.

Based on your genetic profile, we advise you to focus your workouts on muscle building exercises that require longer recovery times and to reduce the repeated series aimed at increasing strength.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
CRP	rs1205	CC



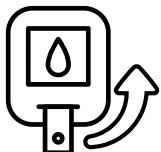
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INCREASE OF GLUCOSE UPTAKE IN RESPONSE TO EXERCISE

RESULTS



The increase in skeletal muscle glucose uptake during exercise results from a coordinated increase in rates of glucose delivery (higher capillary perfusion), surface membrane glucose transport, and intracellular substrate flux through glycolysis. People with C/T or T/T genotype for the variant rs1799722 of the BDKRB2 gene are likely to be associated with an increased glucose uptake in muscle fiber in response to exercise, compared to the C/C genotype.

People with your genetic profile are likely to have an increased glucose uptake in muscle fiber in response to exercise.

Due to your genetic predisposition we recommend the consumption of low-glycemic sugars and the guidance of an expert for a correct diet that suits your needs.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
BDKRB2	rs1799722	CT



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SPRINT

RESULTS



The term Sprint is used to indicate the speed that is acquired during the final phase of a race. The term is mainly used in speed races. The endothelial PAS domain protein 1 (EPAS1) activates genes that are involved in erythropoiesis and angiogenesis, thus favouring a better delivery of oxygen to the tissues, and it is a plausible candidate to influence athletic performance. People with the A/G or G/G genotypes for the variant rs1867785 of the EPAS1 gene are associated with an increased ability to sprint, compared to the A/A genotype.

People with your genetic profile are likely to have an increased ability to sprint.

Based on your genome profile, we advise you to follow an explosive strength training programme with the help of an expert who guides you in choosing the best exercises.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
EPAS1	rs1867785	AG



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INTERACTION BETWEEN LDL CHOLESTEROL LEVELS AND PHYSICAL ACTIVITY

RESULTS



Low density lipoproteins, or LDL, are the lipoproteins commonly known as bad cholesterol. They carry triglycerides and mainly esterified cholesterol in the circulation. Having a large amount of LDL (hypercholesterolemia) is due to genetic factors in addition to lifestyle. Given its proteinic nature, it increases the quantity and thickness of atherosclerotic plaques which then lead to diseases such as atherosclerosis. Physically active individuals show lower LDL levels than sedentary individuals. People with G/T or T/T genotype for the variant rs7583934 of the LRP1B gene are likely to show a stronger LDL reduction in response to physical activity, compared to the G/G genotype.

People with your genetic profile are likely to show a regular reduction of LDL levels in response to physical activity.

Sports training is an important element for staying healthy, especially for people who experience high LDL levels. We therefore advise you to participate in regular sports, and to regulate the intake of fatty foods.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
LRP1B	rs7583934	GG



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HAND GRIP STRENGTH

RESULTS



The ACTA1 gene encodes skeletal muscle α-actin, which is the predominant actin isoform in the sarcomeric thin filaments of adult skeletal muscle, and along with myosin, is essential for muscle contraction. ACTA1 mutations cause different myopathies, whose clinical context is dominated by anatomo-pathological, physiological or biochemical alterations of the cells or interstitial tissue that make up the voluntary muscle. Individuals with a G/G genotype for the rs605428 variant of the ACTA1 gene tend to have an increased grip strength following a workout, compared to the G/A or A/A genotype, which is linked to a lower grip strength predisposition.

People with your genetic profile tend to have an increased grip ability following physical activity.

We recommend using a hand grip to increase your hand strength, especially when participating in sports such as Wing Chun or grappling.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ACTA1	rs605428	GG



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PULSE AT REST

RESULTS



Diastolic pressure is the value of arterial pressure when the heart is relaxing; in other words, it is the blood pressure between two heartbeats. The diastolic pressure can undergo dips (low minimum pressure) or increases (minimum high pressure), which are indicative that the human body no longer works perfectly. If a person suffers from high blood pressure they should focus their attention on achieving the following goals: reduction of body weight, healthy nutrition, stress reduction, moderation of alcohol consumption, stop taking recreational drugs or smoking, and increasing physical activity. Doing sports, in addition to reducing weight and stress, brings numerous benefits to the entire cardiovascular system. People with an A/A genotype for the variant rs699 of the AGT gene tend to have normal diastolic blood pressure at rest compared to the A/G or G/G genotype which is associated with an increased diastolic blood pressure.

People with your genetic profile are likely to have an increased diastolic blood pressure at rest.

We recommend to monitor your blood pressure, consult your doctor if after two hours of rest from exercise the diastolic blood pressure readings exceed 90 mmHg.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
AGT	rs699	GG



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INCREASED HEART RATE IN RESPONSE TO EXERCISE

RESULTS



A strong association between increased heart rate and exercise is represented by polymorphisms located in the YWHAQ gene. YWHAQ is a member of the 14-3-3 family of signaling proteins involved in apoptosis, cell proliferation and metabolism. Individuals with a variant in the YWHAQ gene show a greater vulnerability to develop excessive heart rate increases during physical exertion. It is advisable to monitor the frequency and take breaks. People with a C/C genotype for the variant rs12692388 of the YWHAQ gene tend to have a regular increased heart rate in response to exercise compared to the C/T or T/T genotype which is associated with an excessive increase in heart rate.

People with your genetic profile are likely to have a regular increase in heart rate in response to exercise.

We recommend that you periodically measure your heart rate, measuring it on the inside of your wrist, from the side of your thumb. A rate between 50% and 85% of the maximum heart rate should be obtained. The ideal heart rate is within this range of values.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
YWHAQ	rs12692388	CC



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HEART RATE RESPONSE TO POST-RECOVERY EXERCISE

RESULTS



IGF-2 or Insulin-like Growth Factor 2, regulates different metabolic processes. Its maximum stimulation occurs during high intensity exercises with strong lactic acid production. During the recovery period following exercise, IGF-2 affects the heart rate. People with a T/C or C/C genotype for the variant rs680 of the IGF-II gene are likely to have a regular heart rate during the recovery phase, compared to the T/T genotype, where about 1 minute is needed to return the heart to its rest condition. It is advisable to focus on breathing to relax and reduce the heart rate.

People with your genetic profile are likely to have a regular heart rate reduction during recovery.

We recommend calculating your recovery heart rate during cool-down as the difference between your heart rate during exercise and your heart rate two minutes after the end of the exercise.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
IGF-II	rs680	TT



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PREDISPOSITION TO MODERATE TO VIGOROUS PHYSICAL ACTIVITY LEVELS

RESULTS



GNPDA2 gene encodes glucosamine-6-phosphate deaminase which is involved in the biosynthesis of glucosamine and is expressed by the hypothalamus. People with variations in this gene have a low propensity to follow intense workouts and tend to follow moderate physical exercises. This propensity could be due to a state of mental and physical fatigue following a workout. It is advisable to follow a nutritious diet and strive to do more intense workouts. People with an A/A genotype for the variant rs10938397 of the GNPDA2 gene tend to benefit from vigorous physical activity levels compared to the A/G or G/G genotype which is associated with a lower benefit.

People with your genetic profile are likely to have a low predisposition to benefit from vigorous physical activity levels.

We recommend getting at least 150 minutes per week of moderate-intensity aerobic activity or 75 minutes per week of vigorous aerobic activity.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
GNPDA2	rs10938397	GG



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PREDISPOSITION TO INTENSE SPORTS

RESULTS



One specific chemokine, chemokine (C-C motif) ligand 2 (CCL2), is expressed by macrophages and muscle satellite cells. It increases the expression dramatically following muscle damage. In the variant rs2857656 analysed in CCL2, the presence of the C allele (CC/CG) was associated with less severe muscle injuries than the GG genotype. In general, a lot of stretching is recommended in this case.

People with your genetic profile are likely to have a normal predisposition to benefit from intensive sports.

We recommend following a well-structured training program to increase your blood volume in order to achieve ever greater training intensity.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
CCL2	rs2857656	GG



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PREPARED FOR SPEED SPORTS

RESULTS



Nitric oxide synthases (NOSs) are a family of enzymes catalysing the production of nitric oxide (NO) from L-arginine. NO is an important cellular signalling molecule. It helps modulate vascular tone, insulin secretion, airway tone, and peristalsis, as well as being involved in angiogenesis and neural development. People with a C/C genotype for the variant rs2070744 of the NOS3 gene tend to have a normal propensity to benefit from speed sports compared to the C/T or T/T genotype which is associated with a greater supply of oxygen in their muscle tissue and therefore allows for greater speed and longer duration.

People with your genetic profile are likely to have a normal propensity to benefit from speed sports.

According to your genetic results, we suggest following a training programme to increase endurance. Try to perform coordinated movements, make short increases in speed not at maximum speed (stretch) and gradually speed up your pace for a longer duration than the stretches.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
NOS3	rs2070744	CC



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COGNITIVE BENEFITS (HIGH MOTOR COORDINATION)

RESULTS



BDNF has a single-nucleotide polymorphism with a valine (Val) to methionine (Met) substitution at codon 66. In this case, the Met allele may result in an increased risk for poorer cognitive performance. Physical activity increases the sense of cognition and coordination. People with a C/C genotype for the variant rs6265 of the BDNF gene tend to receive cognitive benefits for motor coordination from physical activity compared to the C/T or T/T genotype which is associated with a lower tendency.

People with your genetic profile are likely to receive cognitive benefits for motor coordination from physical activity.

According to your genetic predisposition, we suggest performing squats or similar movements on an unstable platform or exercise ball. Everything must be done gradually and carefully, in order to avoid falling or getting injured in some way.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
BDNF	rs6265	CC



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REACTION TIME (REFLEXES)

RESULTS



The protein encoded by TCF20 gene binds a platelet-derived growth factor-responsive element in the matrix metalloproteinase 3 promoter. This gene regulates different processes, including general cognitive functions and reaction times. People with the C/C genotype for the variant rs5758659 of the TCF20 gene tend to have a normal reaction time compared to the C/T or T/T genotype which is associated with a lower reaction time, so therefore, a slower reflex.

People with your genetic profile are likely to have a regular reflex response.

According to your genome, to improve your reflexes we suggest running and exercising in places such as the woods or where there is uneven ground, branches and stones, which requires very careful visual and haptic perception processing.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
TCF20	rs5758659	CC



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PACE AND VARIABILITY OF GAIT

RESULTS



The gait is the set of rhythmic movements through which humans and animals move forward on the ground. The pace and frequency of the gait are determined by genes that regulate cardiovascular and neuronal functions, and determine the relaxation of smooth muscle tone. People with an A/A genotype for the variant rs10823991 of the PRKG1 gene tend to walk with a steady pace compared to the A/T or T/T genotype which is associated with a higher pace.

People with your genetic profile are likely to walk at a steady pace.

We recommend, if possible,to keep a steady pace while walking. This avoids greater energy expenditure.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PRKG1	rs10823991	AA



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WORLD-CLASS ATHLETIC RESISTANCE

RESULTS



The protein encoded by the CKM gene is a cytoplasmic enzyme involved in cellular energy homeostasis. People with T/C or C/C genotypes for the rs8111989 variant are likely to have greater physical resistance and therefore can physically train for a longer duration, compared to the T/T genotype which is associated with an average physical endurance.

People with your genetic profile are likely to have a regular level of physical endurance.

We recommend increasing endurance by practicing at least 150 minutes of exercise per week. Perform warm-up exercises to speed up your heart rate. At this point you can proceed alternating moments of sprinting with others of jogging; it is precisely the sprints that increase endurance and help us to pursue our goal. The exercise can last up to 30 minutes, taking care to do 30 seconds at high speed every 90 seconds of running.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
CKM	rs8111989	TT



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EQUILIBRIUM

RESULTS



While strength and cardio training are critical aspects of conditioning, balance is the foundation of good health, and everyone can improve it themselves, regardless of their skills. In fact, some researchers suggest that the more you balance, the less time we will need to spend to increase strength. It has been shown that the ability to have a greater predisposition to improve one's balance can also depend on a genetic factor. Variations in the SLC7A2 gene result in impaired motor neuron function and therefore altered equilibrium. People with an A/A genotype for the rs2248010 variants of this gene tend to have a good equilibrium compared to the A/G or G/G genotype which is associated with an altered equilibrium.

People with your genetic profile are likely to have a good equilibrium.

In accordance with your genome, having a predisposition to have a good balance, we recommend to take advantage of this propensity in training this ability and try sports that allow it to be put into practice such as karate, yoga, dance, gymnastics, and similar disciplines; equilibrium is important in all disciplines.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
SLC7A2	rs2248010	AA



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AGILITY

RESULTS



Agility is the ability to change the direction of the body efficiently and effectively and to achieve this it requires a combination of: - Balance - the ability to maintain balance when stationary or in motion (i.e. not to fall) through the coordinated action of our sensory functions (eyes, ears and proprioceptive organs in our joints);-Static balance - the ability to maintain the center of gravity above the base in a stationary position;-Dynamic balance - the ability to maintain balance with body movement;-Speed - the ability to move all or part of the body quickly;-Strength - the ability of a muscle or muscle group to overcome resistance; and finally,- Coordination - the ability to control body movement in cooperation with the body's sensory functions (for example, in grabbing a ball [ball, hand and eye coordination]). The protein encoded by this gene is specifically expressed in the skeletal muscle, and belongs to the myozin family. Members of this family function as calcineurin-interacting proteins that help tether calcineurin to the sarcomere of cardiac and skeletal muscle. Functional variation within the genes that code for members of the Calsarcin family influences performance-related phenotypes in humans. People with an A/A genotype for the rs116090320 variant of the MYOZ3 gene tend to have good agility, compared to the A/G or G/G genotypes which are associated with advanced ability in agility.

People with your genetic profile are likely to have good agility.

In order to improve your agility, you could plan different exercises that may help you in this purpose. For example a good training exercise could be jumping obstacles about 15 cm high placed in a straight line for a total of 5 obstacles. Stand sideways and start skipping them one by one.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MYOZ3	rs116090320	AA



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PRECISION

RESULTS



Having a greater sensitivity in perception in relation to both your body and other tools is of fundamental importance and must be developed and trained at a young age, especially as for very young children (3-6 years), the ability to control motor is not very developed. One of the many determining components for having a good precision is the sight. Infact, sight plays an essential role in determining people's eyesight accuracy, as it allows you to distinguish objects. Toll-Like Receptor TLR is involved in innate defense mechanisms and are found on the membranes of different cell types including the retinal pigment epithelium. Variations in this gene result in a lack of protection from exogenous substances in the external retina and choroid that affect a person's accuracy and precision in sports such as archery. People with C/C genotype for the rs3775291 of the TLR gene, tend to have good eyesight precision compared to the C/T or T/T genotypes, which are associated with the trend towards less precision.

People with your genetic profile have low eyesight precision.

We recommend performing several workouts to improve accuracy: throw ballasted balls or balls at different distances, make long jumps with always different jumping lengths, run for a certain distance by taking a certain number of steps and then ask to do the same but with a greater or lesser number, run or play games in spaces of different widths, stop the stopwatch at a specific moment, throw a ball in the air and pick it up, or throw it in the air and clap your hands before taking it back.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
TLR3	rs3775291	TT



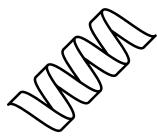
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INSUFFICIENCY OF EXPERIENTIAL LEARNING

RESULTS



DISC1 has been shown to participate in the regulation of cell proliferation, differentiation, migration, neuronal axon and dendrite outgrowth. Several studies have shown that unregulated expression or altered protein structure of DISC1 may predispose individuals to the development of learning imbalances. People with an A/A genotype for the rs821616 variant of the DISC1 gene tend to have a good ability for experiential learning compared to the A/T or T/T genotype.

People with your genetic profile are likely to have a good ability for experiential learning.

Experiential learning is an important aspect of growth, especially for young children. However, even adults have some room for improvement in learning. Approaching a new discipline involves making a considerable effort, but a new stimulus is excellent training for the mind and to keep your brain young. In approaching a new discipline we suggest proceeding in small steps, slowly storing small notions. The help of a person with experience in teaching the chosen discipline is fundamental to obtain excellent results.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
DISC1	rs821616	AA



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IMPULSIVITY

RESULTS



In psychology, impulsivity is a tendency to act on a whim, displaying behavior characterised by little or no forethought, reflection, or consideration of the consequences. Impulsive actions are typically "poorly conceived, prematurely expressed, unduly risky, or inappropriate to the situation that often result in undesirable consequences," which imperil long-term goals and strategies for success. Impulsivity can be classified as a multifactorial construct. In genetics, it has been reported that the rs1406946 mutation in the HTR1E gene results in low protein expression and is associated with an increase in impulsivity. People with the C/C genotype are likely to have a lower tendency to act impulsively compared to the C/T or T/T genotypes which are associated with higher impulsivity.

People with your genetic profile are likely to have a higher tendency to act impulsively.

We recommend devising mechanisms that slow down the tendency to behave precipitously, trying to give you ad hoc obstacles to curb your weaknesses. Planning your days is a way to organise yourself better and therefore have less need to resort to external remedies. The ability to effectively manage impulsiveness and the tendency to act too early in combat and short-lived sports is decisive (100 and 200 meters, relay races, 400 meters, swimming, jumping, throwing, ski jumping, weightlifting).



SCIENTIFIC DETAILS

Gene	rsID	Genotype
HTR1E	rs1406946	TT



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KIT ID: TPD16382842155959

LEADERSHIP

RESULTS



By leadership, we are referring to the relationship of the one who occupies the highest position in an organised social structure as relates to the rest of the group. This inclination may be determined by genetic components involved in the transmission of the neuronal signal. People with a C/C genotype of the rs1406946 variant of the HTR1E gene tend to show lower leadership abilities compared to the C/T or T/T genotype which are associated with higher leadership abilities.

People with your genetic profile are likely to have lower leadership abilities.

Building a team that works requires dedication and passion. We recommend that you share your vision, your mission and your goals with your team. Your job as a leader is to provide a clear path that your team can follow. Your mental attitude strongly influences your behavior towards other people and life situations.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
HTR2A	rs6311	CC



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

RESPONSE TO ANGER

RESULTS



The term anger indicates an altered mental state, generally promoted by elements of provocation capable of removing the inhibitory brakes that normally dilute the choices of the person involved. In our brain, some molecules are involved in our emotions and feelings manifestations. One of the main molecules involved in this mechanism is dopamine, in the dopaminergic pathway. This molecule in fact, among the many tasks, is involved in the mesocortical pathway that connects the ventral tegmental area of the midbrain to the prefrontal cortex for the control of emotions and feelings. Neurturin is a protein encoded by the NRTN gene and has been shown to have powerful effects on the survival and function of the development and maturation of the midbrain dopaminergic neurons. Variations in this gene (A/G or G/G genotype for the rs1379868 variant) are linked to altered emotional states including anger management.

People with your genetic profile are likely to have a good ability to handle feelings of anger.

Anger can come for many reasons and in an unexpected way. Knowing how to manage your feelings is very important in a society where knowing how to relate to others is essential in order not to be marginalized and to be successful in the personal, sportive and work environment. Always try to find a congenial outlet for you, whether it's a sport or a meditation practice, so as not to reach unmanageable stress peaks.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
NRTN	rs1379868	AA



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DANTE LABS™ TEST RESULTS

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OPTIMISM

RESULTS



Optimism is an attitude that manifests itself in the way of feeling, thinking and living characterised by positivity or at least by its prevalence over negativity. Optimism is determined by the interaction of the environment with our body, in particular by the responses that our brain puts into action following external stimuli. There is a correlation between the T/T genotype for the rs4958581 variant of the LINC01470 gene and the tendency to have average feelings of optimism compared to the T/C or C/C genotype, which are associated with higher feelings of optimism.

People with your genetic profile are predisposed to have a good sense of optimism.

Especially in team sports, being positive is very important for victory. Psychology plays a fundamental role in individual and group competitions especially in sports such as rowing, where a dedicated figure encourages and leads the team. The advice is to always maintain a positive mentality that leads to success.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
LINC01470	rs4958581	TT



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COMBATIVE PERSONALITY

RESULTS



Combativeness is defined as the tendency to struggle against someone or something else. However, it can be associated in some circumstances with aggression and violence. On a biochemical level, the combative personality is associated with several enzymes including the one encoded by the COMT gene which determines the levels of neurotransmitters such as dopamine and serotonin. These neurotransmitters play a central role in determining our reactions and moods. People with the G/G genotype for the rs4680 variant tend to have a lower chance to have a combative personality compared to the G/A or A/A genotype which are associated with a higher tendency.

People with your genetic profile are likely to have a lower tendency to have a combative personality.

We suggest working on concentration, conviction and security. These factors play an essential role in sustaining consistently and decisively any physical or mental training you wish to undergo. These skills are very useful during training, but become extremely important during competitions, to the point that they often make the difference between success and failure.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
COMT	rs4680	GG



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

ATHLETIC DIFFICULTIES DUE TO REDUCED HEART RATE

RESULTS



Heart rate (HR) is the rate of heart contractions or pulsations measured by the number of beats per minute. Activities that can cause changes include exercise, sleep, anxiety, stress, disease and taking drugs. M2 muscarinic receptors, which are found in the heart, act to slow down the heart rate up to the normal sinus rhythm after positive stimulation actions of the parasympathetic nervous system, slowing down the speed of depolarization. People with variations in the CHRM2 gene have a slower heart rate recovery time following exercise and a lower heart rate recovery time of between 6 and 12 beats/min.

People with your genetic profile are likely to have a lower heart rate.

We recommend monitoring the heart rate, as it is possible to reach a heart rate of 35 - 40 bpm; values that configure the athlete's classic bradycardia.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
CHRM2	rs324640	AA



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MUSCLE RESPONSE TO RESISTANCE TRAINING

RESULTS



Muscle endurance depends on several factors, including gender, age, nutrition, and genetics. The glucocorticoid receptor gene (NR3C1) encodes the protein NR3C1 that binds glucocorticoid hormones within the liver, muscles, and vascularization, influencing the metabolism of the latter. Variations in this gene can cause rapid cortisol binding resulting in an increase in body mass index, less muscle strength and size which results in less resistance to exercise. It has been demonstrated that people with the C/T or T/T genotypes for the rs4634384 variant of the NR3C1 gene are likely to have low muscle response to resistance training, compared with the C/C genotype.

People with your genetic profile are likely to have good muscle response to resistance training.

We recommend exercises that cause muscle contraction against external resistance with the expectation of increasing muscle strength, tone, mass and / or endurance. External resistance can be generated with the use of dumbbells or rubber gymnastic tubes. Weight lifting is a resistance exercise that triggers a good muscle response and allows you to quickly get results.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
NR3C1	rs4634384	CC



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

SKELETAL MUSCULATURE PERFORMANCE

RESULTS



Muscles such as the biceps and quadriceps are skeletal muscles. They consist of elongated cells called myofibers, which contract and relax after a nerve impulse, generating movement. Performing regular exercise allows the skeletal muscles not only to contract, but also to secrete and pour into the circulatory stream an anti-inflammatory cytokine: IL-6 (interleukin 6). Scientific evidence shows that it stimulates the production and release of other circulating cytokines such as IL-1 and IL-10. It also inhibits the production of pro-inflammatory interleukins such as TNF- α . IL-6 facilitates lipid turnover, stimulates lipolysis as well as β -oxidation, its role in muscle performance is evident. People with the C/G or G/G genotypes for the rs1800795 variant of the IL6 gene, are likely to have a higher musculature performance compared to the C/C genotype.

People with your genetic profile are likely to have an enhanced muscular performance.

Based on your predisposition, you can take advantage of strength training. We also recommend working on synchronization: normally the motor units operate asynchronously, but it is shown that during a maximum voluntary effort the motor units can work synchronously. The result is an increase in strength.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
IL6	rs1800795	CG



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PERCENTAGE OF FIBERS THAT MAKE UP THE MUSCLE: WHITE FIBERS

RESULTS



Fast-twitch fibers (white, type II), intervene in fast and intense muscle actions. Inside we find a high concentration of the enzymes typical of the anaerobic alactacid and glycolytic metabolism. Fast fibers are gained during short-term exercises that require a large neuromuscular commitment. They are activated only when the recruitment of slow-twitch fibers is maximum. People with the C/T or T/T genotype for the rs2268757 variant of the ACVR2B gene are likely to have lower white muscle fiber percentage, compared to the C/C genotype.

People with your genetic profile are likely to have a regular white muscle fiber percentage.

By increasing the white fibers you will perform rapid contractions, at the expense of resistance but to the advantage of the tension produced.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ACVR2B	rs2268757	CC



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PERCENTAGE OF FIBERS THAT MAKE UP THE MUSCLE: RED FIBERS

RESULTS



Slow-twitch muscle fibers (red, type I), are recruited into small, but long-lasting muscle actions. The red fibers retain more glycogen and concentrate the enzymes associated with aerobic metabolism. The mitochondria are more numerous and larger in size, just like the number of capillaries that the single fiber supplies. The reduced size of the latter facilitates the diffusion of oxygen from the blood to the mitochondria, due to the smaller distance that separates them. It is precisely the abundant content of myoglobin and mitochondria to give these fibers the red complexion, from which their name derives. People with the T/C or C/C genotype for the rs1805086 variant of the MSTN gene are likely to have higher red muscle fiber percentage, compared to the T/T genotype.

People with your genetic profile are likely to have an average red muscle fiber percentage.

We recommend performing specific strength exercises, which lead to maximum use of muscle tissue; make sure to leave adequate recovery time after exercise for tissue repair and replenishment of reserves, eat properly, and sleep properly.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MSTN	rs1805086	TT



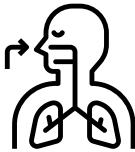
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RESPIRATORY CAPACITY

RESULTS



Lung volumes vary according to age, sex, and above all in relation to stature and body size. During physical exercise, the tidal volume increases considerably, drawing from both the inspiratory and the expiratory reserve volume. In physiological conditions, prostaglandins perform numerous important functions for the body including the regulation of vasodilation and vasoconstriction, bronchodilation and bronchoconstriction. Variations in the GSTCD gene are reflected in the synthesis capacity of prostaglandins and therefore in respiratory capacity. In particular, people with the A/G or G/G genotype for the rs10516526 variant of the GSTCD gene are likely to have a reduced respiratory capacity, compared to the A/A genotype.

People with your genetic profile are likely to have a regular respiratory capacity.

Using proper breathing techniques are incredibly important during exercise. Forgetting to breathe correctly during exercise can lead to a reduction in your muscle power and a lower performance in your discipline. If you tend to stay in apnea for exertion, focus more on breathing.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
GSTCD	rs10516526	AA



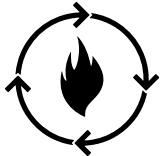
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AEROBIC METABOLISM

RESULTS



Maximal oxygen uptake ($\text{VO}_{2\text{max}}$) is widely used as the best measure of an individual's cardiorespiratory fitness. $\text{VO}_{2\text{max}}$ is defined as the maximum volume of oxygen per unit time that an individual uses at maximum exertion. The baseline $\text{VO}_{2\text{max}}$ level can change depending on age, gender, past medical history, current health, and physical activity level. However, anyone can increase their fitness level and $\text{VO}_{2\text{max}}$ through endurance training. Elite athletes that participate in endurance sports such as cross country skiing and long-distance running, have a higher $\text{VO}_{2\text{max}}$ than elite athletes in power sports, such as wrestling and weightlifting. The rs8192678 SNP in the PPARGC1A gene, which is a key regulator of energy metabolism, was associated with baseline $\text{VO}_{2\text{max}}$ (L/min) in a study of 303 Spanish and British men. The C/C and C/T genotypes of rs8192678 were associated with "Typical" $\text{VO}_{2\text{max}}$, whereas the T/T genotype was associated with a "Decreased" $\text{VO}_{2\text{max}}$. This association has not been studied in women.

People with your genetic profile are likely to have a reduced oxygen consumption capacity.

Given your predisposition to have a high absorption of oxygen, we recommend focusing your training on endurance activities such as long distance running, cycling, and other similar activities as you have the predisposition to obtain consistent results



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PPARGC1A	rs8192678	CT



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DANTE LABS™ TEST RESULTS

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SODIUM LEVELS

RESULTS



Sodium is an essential micronutrient that regulates blood pressure and blood volume. Most people consume more sodium than the body requires; generally in men and women the levels are 132 - 143 mmol / L . The major adverse effects of excess sodium intake are elevated blood pressure (G/T; T/T genotype for rs12255372 of the TCF7L2 gene), which predisposes oneself to hypertension and heart disease. However, some individuals do not experience an increase in blood pressure in response to excess sodium intake.

People with your genetic profile are likely to have a low risk factor for elevated blood pressure in response to sodium uptake.

We recommend, based on your predisposition, to take mineral salt supplements to ensure an adequate intake during prolonged and intense physical activities, as there are no particular contraindications to this supplement.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
TCF7L2	rs12255372	GG



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KIT ID: TPD16382842155959

CALCIUM LEVELS

RESULTS



Calcium is important for the growth, maintenance, and repair of bone tissue. It is also involved in the maintenance of blood calcium levels, regulation of muscle contractions, nerve conduction, and normal blood clotting. In order to absorb calcium, we need an adequate vitamin D intake (refer to the vitamin D section for your specific recommendations). Inadequate dietary intake of calcium and vitamin D increase the risk of low bone mineral density and stress fractures. Generally, in men and women aged 22 years old and up, the calcium blood levels are 8.9-10.1 mg/dl. People with an increased tendency for bone fractures have been associated with the A/C, C/C variants of the rs7041 for the GC gene, which has been associated with a reduced ability to absorb calcium from the diet.

People with your genetic profile are likely to show a lower blood calcium level compared to the indicated standard range.

Your diet may require taking food supplements, especially for athletes, however we always recommend carrying out a specialised diet plan with expert advice.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
GC	rs7041	AC



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BODY MASS INDEX

RESULTS



The Body Mass Index (BMI) is a widely used parameter for obtaining a general assessment of your body weight. It associates the height and weight of a subject to a simple mathematical formula. The BMI is a very useful index, quick to calculate and adaptable to most subjects. However, BMI hides big limits in itself, especially when it is referred to athletes. This parameter, in fact, represents an approximate calculation since it does not take into account the type of physical constitution (long-limbed, medium, robust) and the muscle masses of the subject. BMI values in general: Underweight BMI <18, Normal weight BMI between 18 and 25, Overweight BMI between 25 and 30, Obese BMI > 30. People with a G/G genotype in the variant rs1042713 of the ADRB2 gene have a healthier weight compared to the G/A or A/A genotype which is associated with a tendency to gain weight easily.

People with your genetic profile are not predisposed to have a tendency to become overweight.

Even if, in accordance with your genetic profile, you are not predisposed to gain weight, we still recommend you to adopt a healthy lifestyle in order to preserve this innate characteristic of you over time.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ADRB2	rs1042713	GG



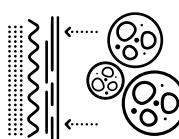
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OSMOTIC STRESS

RESULTS



Osmotic stress is physiologic dysfunction caused by a sudden change in the solute concentration around a cell, which causes a rapid change in the movement of water across its cell membrane. Under conditions of high concentrations of either salts, substrates or any solute in the supernatant, water is drawn out of the cells through osmosis. Alternatively, at low concentrations of solutes, water enters the cell in large amounts, causing it to swell and either burst or undergo apoptosis. Osmotic-stress applied to an intact skeletal muscle fiber can produce brief Ca²⁺ sparks and prolonged Ca²⁺ burst events, events that affect muscle contractions. People with a G/G genotype for the variant rs1049305 of the AQP1 gene have low osmotic stress compared to the G/C or C/C genotype which is associated with a higher osmotic stress.

People with your genetic profile are likely to have lower osmotic stress.

According to your genetic variant, we recommend taking saline supplements as directed by an expert.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
AQP1	rs1049305	GG



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

BODY ENERGY EXPENDITURE (24 HOURS)

RESULTS



The main determinants of energy expenditure are body size, muscle composition, food intake, and physical activity. Food intake and physical activity directly and indirectly affect energy expenditure, the latter due to food intake and physical activity on body size and body composition. People with the T/T genotype for the variants rs659366 of the UCP2 gene are likely to have an enhanced metabolic rate, compared to the C/C or C/T genotype.

People with your genetic profile are likely to have a regular metabolic rate.

According to your genetic profile, intensifying aerobic exercises is advised, such as running to burn more calories, accompanied by proper nutrition that regulates calorie needs.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
UCP2	rs659366	CC



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DANTE LABS™ TEST RESULTS

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METABOLISM AT REST

RESULTS



The resting metabolic rate (also called RMR) is the rate at which your body burns energy when it is at complete rest. You can calculate your resting metabolic rate to see how many calories your body needs to perform basic functions like breathing and circulation. The RMR is part of the total daily energy expenditure (TDEE) or the total number of calories burned each day. People with the A/A genotype for the variant rs1048943 of CYP1A1 gene are associated with higher catalytic activity compared to the T/T or T/A genotypes.

People with your genetic profile are likely to have regular catalytic rate at rest.

If your resting metabolism does not have an increased ability to burn calories, it is advisable in any case not to limit the calorie intake too much or for too long of a period if you want to lose weight. Always seek the advice of an expert to create a diet plan appropriate to your needs.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
CYP1A1	rs1048943	TT



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LEAN MASS

RESULTS



Lean body mass (LBM), or fat-free mass, is a component of body composition, calculated by subtracting body fat weight from total body weight: total body weight is lean plus fat. In equations: LBM = BW - BF. Lean body mass equals body weight minus body fat LBM + BF = BW. Lean body mass plus body fat equals body weight. The percentage of total body mass that is lean is usually not quoted – it would typically be 60–90%. Instead, the body fat percentage, which is the complement, is computed, and is typically 10–40%. The lean body mass (LBM) has been described as an index superior to total body weight for prescribing proper levels of medications and for assessing metabolic disorders, as body fat is less relevant for metabolism. LBW is used by anesthesiologists to dose certain medications. For example, due to the concern of postoperative opioid-induced ventilatory depression in the obese patient, opioids are best based on lean body weight. The induction dose of propofol should also be based on LBW. Having a low lean body mass (LBM) is related to a series of health problems such as osteoporotic fractures and sarcopenia. People carrying unfavourable genotypes have an LBM 2.70 and 2.55 kg lower than average compared to those with alternative genotypes. People with an A/A genotype for the rs16892496 variant of the TRHR gene tend to have a good lean mass compared to the A/C or C/C genotypes, which are associated with having a reduced lean mass.

People with your genetic profile are likely to have a reduced lean mass.

According to your genome, you have a tendency to have a higher fat mass compared to lean mass. In this regard, it is very important to follow a strict diet accompanied by moderate physical activity. In fact, it is not necessary to increase sports activity too much, as the critical point for controlling lean mass lies in the correct diet.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
TRHR	rs16892496	AC



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LIPID METABOLISM DISORDERS

RESULTS



Disorders of lipid metabolism lead to atherosclerosis and cardiovascular disease (CVD), including myocardial infarction and stroke. Individuals with a G/T or T/T genotype tend to have lower plasma levels of LDL-C and a lower risk of coronary heart disease (CHD). The LDLR rs6511720 minor (T, Forward strand) allele is carried by approximately 10% of the population and it has been demonstrated that the allele is protective; being associated with lower levels of LDL-C.

People with your genetic profile are likely to have a good blood cholesterol level.

We recommend performing consistent workouts to stimulate the muscles and mobilise triglycerides in order to let the body use them as energy instead of storing them as fats.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
LDLR	rs6511720	GG



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ENERGY EXPENDITURE

RESULTS



Leptin is a protein hormone that plays an important role in the regulation of caloric intake and expenditure; it helps to regulate the balance of energy reserves. Variations in the Leptin gene can cause imbalances in the metabolism, and people with this genotype must be guided in their diet and exercise. People with G/G or G/A genotypes for the rs7799039 variant of the LEP gene tend to have a normal consumption of energy compared to the A/A genotype which is associated with a higher energy consumption.

People with your genetic profile are likely to have a normal consumption of energy.

We recommend training regularly, but also to rely on rest, since the lower the heart rate and the relative VO₂max, the higher the percentage of oxidized fat compared to carbohydrates. This will help avoid excessive fat gain due to low energy consumption.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
LEP	rs7799039	GG



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ENERGY SUPPLY

RESULTS



Immediate energy intake comes mainly from carbohydrates, such as glucose. The SLC2A4 gene plays a key role in removing glucose from the bloodstream causing it to be used quickly. People with this variant have a more active protein that allows glucose to be metabolised faster. This variant is associated with achieving a high-level physical performance. People with a G/G genotype for the rs5418 variant tend to have a regular energy intake compared to the G/A or A/A genotype which is associated with a greater energy intake.

People with your genetic profile are likely to have greater energy intake.

We advise you to make the most of your genetic predisposition by referring to a perfect diet for your conditions. Consulting an expert is highly recommended, as you have the potential to increase your physical performance with proper nutrition.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
SLC2A4	rs5418	GA



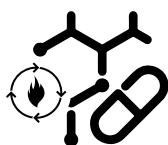
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METABOLISM OF ESSENTIAL AMINO ACIDS

RESULTS



The mTOR (mammalian target of rapamycin) enzyme plays an important role in extracellular signal transduction, transcription and translation factors, phosphorylates various protein metabolism enzymes, and in this way, regulates metabolism in skeletal muscles. Individuals with the T/T genotype for the rs2295080 variant of the MTOR gene show a tendency to increase performance, compared to the G/T or G/G genotype.

People with your genetic profile are likely to have a normal metabolism of essential amino acids.

We recommend monitoring the intake of amino acids, since with a regular metabolism more than 2 grams of amino acids are already obtained from the turnover of proteins that are an integral part of the body.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MTOR	rs2295080	GG



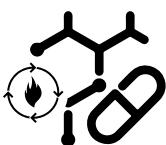
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METABOLISM OF BRANCHED AMINO ACIDS

RESULTS



This gene encodes a member of the PPM family of Mn²⁺/Mg²⁺-dependent protein phosphatases. People with a high metabolism tend to have a high blood concentration of BCCA (branched-chain amino acids). It is advised to not increase the intake of BCCA or, otherwise follow the recommendations of a specialist. People with an A/A genotype for the rs9637599 variant of the PPM1K gene tend to have a normal metabolism of branched amino acids compared to the A/C or C/C genotype which is associated with a higher metabolism.

People with your genetic profile are likely to have high metabolism of branched amino acids.

We recommend asking an expert whether to implement amino acids in the diet, since branched amino acids represent more than 33% of the proteins present in muscle. Therefore, their deficiency will hinder muscle growth and could lead to loss of muscle mass.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PPM1K	rs9637599	AC



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ARGININE METABOLISM

RESULTS



Argininosuccinate synthase is an enzyme that catalyses the transformation of aspartate into argininosuccinate, which is subsequently converted into arginine and fumarate. Variations in the gene that codes for argininosuccinate synthase cause an accumulation of citrulline, and therefore ammonia and other toxic substances in the blood. If you have a variation in the argininosuccinate synthase gene it is advised to follow a balanced diet and avoid extra intake of amino acids. People with the T/T genotype for the rs1057484 variant of the ASS1 gene are likely to have a normal metabolism of Arginine compared to the T/C or C/C genotype which is associated with an altered Arginine metabolism.

People with your genetic profile are likely to have a normal metabolism of Arginine.

We recommend taking Arginine in quantities between 3.5 and 5 grams per day, especially through meat, dried fruit and vegetable foods rich in proteins (legumes). Arginine could also become essential in adults who have particularly restrictive diets, greater psychophysical stress or physical trauma.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ASS1	rs1057484	TT



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ORNITHINE METABOLISM

RESULTS



Ornithine is an amino acid derivative with basic characteristics that is produced by our body from arginine due to the intervention of the enzyme arginase with consequent production of urea. SIRT3 codes for an enzyme that modulates the activity of different enzymes involved in the urea cycle and β -oxidation. In particular, it promotes the activation of the enzyme ornithine transcarbamoylase which determines the correct metabolism of ornithine. People with a C/C genotype for the rs11246020 variant of the SIRT3 gene are likely to have a normal metabolism of Ornithine compared to the C/A or A/A genotype which is associated with an altered Ornithine metabolism.

People with your genetic profile are likely to have a normal metabolism of Ornithine.

We recommend taking Ornithine doses of 2 g/day for 7 days, as they have proven effective in reducing the feeling of fatigue in healthy individuals undergoing exercise, probably by improving ammonia excretion.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
SIRT3	rs11246020	CC



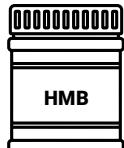
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HYDROXY METHYL BUTYRATE (HMB) METABOLISM

RESULTS



Beta-hydroxy-beta-methylbutyrate (HMB) is a leucine metabolite with protein anabolic effect. This metabolite increases protein synthesis leading to a reduction in the phosphorylation of the RPS6KB1 protein. If you have a variation in the RPS6KB1 gene (G/G or A/G genotype instead of A/A for the rs180515 variant), the effect of Beta-hydroxy-beta-methylbutyrate (HMB) is altered, as well as protein synthesis.

People with your genetic profile are likely to have an altered Hydroxy methyl butyrate (HMB) metabolism.

An altered metabolism could lead to mild side effects, so we suggest asking an expert on the use of Hydroxy methyl butyrate supplements.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
RPS6KB1	rs180515	GG



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PHOSPHATIDYL SERINE METABOLISM

RESULTS



Phosphatidylserine is a phospholipid component of the cell membrane. It is a good supplement as it lowers cortisol levels (catabolic hormone) thus allowing for greater muscle growth. Phosphatidylserine is therefore a good supplement for Bodybuilders. People with the G/G genotype for the variant rs176938 of the PTDSS2 gene are likely to have a regular metabolism of Phosphatidylserine compared to the G/A or A/A genotype, which is associated with an altered Phosphatidylserine metabolism.

People with your genetic profile are likely to have a regular metabolism of Phosphatidylserine.

In accordance with your physical activity plan, we suggest taking Phosphatidylserine during meals, in periods when the workouts are less intense (100 - 200 mg) and before a workout, in periods of greater intensity (500 - 800 mg). It is always recommended to receive medical counselling.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PTDSS2	rs176938	GG



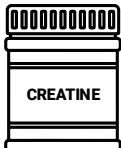
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CREATININE METABOLISM

RESULTS



Glycine-amidinotransferase is a mitochondrial enzyme involved in creatine biosynthesis. Variations in the GATM gene result in progressive muscle weakness and fatigue. The use of creatine in food supplements has a different effect depending on muscle mass, the amount of creatine already present, as well as that introduced into the diet. The presence of this variation (C/A or A/A genotype for the rs2453533 variant of the GATM gene, instead of C/C) may require the integration of a creatine supplement into the diet.

People with your genetic profile are likely to have an altered Creatinine metabolism.

We recommend that you take care to increase your creatinine intake, as impaired creatinine metabolism can lead to tiredness, poor appetite, shortness of breath, and kidney dysfunction. Avoid excessively meat-rich diets in case of high creatinine levels.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
GATM	rs2453533	AA



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L-GLUTAMINE METABOLISM

RESULTS



Glutamine is an amino acid naturally produced by the body. Its synthesis occurs mainly at the muscular level starting from three other amino acids: arginine, ornithine, and proline. Glutamine synthetase plays a major role in ammonia detoxification; in fact, alterations of this enzyme (A/A genotype for the rs7734 variant of the GLUL gene) determine an altered metabolism of glutamine with accumulation of nitrogen compounds in the blood.

People with your genetic profile are likely to have a normal metabolism of L-glutamine.

According to your genome, it is recommend that you return to the optimal range of 1.5 to 4 g per day. We suggest taking it pre-workout, together with carbohydrates, to optimise performance and reduce oxidative damage induced by intense exercise and taking it post work-out with simple sugars and branched chain amino acids to optimise the muscle recovery phase.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
GLUL	rs7734	TT



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SPIRULINA METABOLISM

RESULTS



Spirulina is the generic name of a dried biomass obtained from the collection of spirulina algae. Spirulina is rich in gamma-linolenic acid and includes all the essential amino acids, even if the content in methionine, cysteine and lysine is substantially less than that in meat, egg and milk proteins. PNPLA3 is a gene deeply involved in the transformation of liver fatty acids and in the secretion of VLDL. If the gene is mutated (C/G or G/G genotype for the rs738409 variant of the PNPLA3 gene), the metabolism of spirulina taken as supplement is altered.

People with your genetic profile are likely to have altered Spirulina metabolism.

We recommend consulting a doctor or nutritionist before dedicating yourself to the integration of this microalga. If you have an impaired metabolism of Spirulina, you do not optimally metabolise a component contained in it, generally fat.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PNPLA3	rs738409	GG



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ANAEROBIC METABOLISM

RESULTS



Anaerobic metabolism is a cellular "physiological mechanism" which is responsible for the production of energy regardless of the use of oxygen; a mechanism implemented especially during physical efforts that are too intense and occur too rapidly. This energy system is capable of producing ATP in an anaerobic environment by activating anaerobic glycolysis. The HIF1A gene controls the expression of several genes implicated in various cellular functions including glucose metabolism. This variation increases protein stability and transcriptional activity, and therefore can improve glucose metabolism. In the sports field, if an athlete shows signs of chronic fatigue and has difficulty in recovering between training sessions, it is possible that he may benefit from a saline integration. People with a C/C genotype for the rs11549465 variant of the HIF1A gene tend to have a normal anaerobic metabolism compared to the C/T or T/T genotypes which are associated with a higher anaerobic metabolism.

People with your genetic profile are likely to have an increased anaerobic metabolism.

We recommend performing a workout that involves stimulating anaerobic lactacid metabolism with middle distance disciplines, such as short-distance running.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
HIF1A	rs11549465	CT



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LACTACYD METABOLISM

RESULTS



Lactic acid or lactate is a byproduct of the anaerobic lactacyd metabolism. It is a toxic compound for cells and whose accumulation in the bloodstream correlates to the appearance of so-called muscle fatigue. The formation of lactic acid is carried out by the enzyme lactate dehydrogenase, whose role is essential during the request for energy by the muscles. Variations in the genes that regulate the expression of lactate dehydrogenase affect the metabolism of lactic acid. People with an A/A genotype for the rs10518949 variant of the THSD4 gene tend to have a regular metabolism of Lactacyd compared to the A/G or G/G genotype which are associated with an altered Lactacyd metabolism.

People with your genetic profile are likely to have a regular metabolism of Lactacyd.

We recommend that during training and in the case that you have difficulty recovering between training sessions, to integrate alkalizing supplements (potassium citrate - potassium citrate) and / or bicarbonate in your diet to help optimise your performance.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
THSD4	rs10518949	AA



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METABOLISM OF UNBRANCHED CARBOHYDRATES

RESULTS



Glycogen is a molecule that at the time of need can undergo a demolition to produce glucose; useful for the body's glycolytic pathways. Two thirds of the body's glycogen (about 200-300 grams) are stored in the muscles in the form of shorter and lighter chains. Muscle glycogen is a source of energy readily available for active muscles. In this regard, the variations of the PRKAG3 gene (G/C or C/C genotype, instead of G/G for the rs692243 variant), increase the AMP activity and the glycogen content in skeletal muscles.

People with your genetic profile are likely to have a normal metabolism of unbranched Carbohydrates.

Based on your results, we recommend performing high intensity workouts allowing a constant use of fats and a progressive increase in the use of muscle glycogen.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PRKAG3	rs692243	GG



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FOLATE METABOLISM

RESULTS



Folic acid is a water-soluble vitamin of group B that is involved in many important biochemical reactions especially when intense periods of cell division and where cases of rapid growth are involved. The MTHFR gene codes for an enzyme that allows the remethylation of homocysteine in methionine through the intervention of vitamin B12 as a cofactor. The transformation of homocysteine into methionine is a very important metabolic step. High levels of this substance in the blood are related to an increased cardiovascular risk. Variations that result in low enzyme activity (C/A or A/A genotype for the rs1801133 of the MTHFR gene) lead to an increase in homocysteine in the blood.

People with your genetic profile are likely to have a lower metabolism of folate.

You could compensate for the low metabolism with an increased intake of green leafy vegetables, especially spinach. You can also ask an expert how to integrate folic acid into the diet.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MTHFR	rs1801133	GA



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GLUTATHIONE METABOLISM

RESULTS



Glutathione is a powerful antioxidant, certainly one of the most important that the body is able to produce. The synthesis produces an enzyme, glutathione synthase. Variations of this gene (C/T or T/T for the rs1138272 variant of the GSTP1 gene) cause a lack of glutathione production and therefore a lower contrast of the reactive species of oxygen produced by exercising.

People with your genetic profile are likely to have a normal metabolism of glutathione.

According to your results, we suggest integrating a dosage of glutathione between 50-600 mg daily, depending on the intensity of the workout. Enhancing antioxidant activity is important to combat oxidative stress produced during sports activities. However, it is always recommended to ask an expert for advice.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
GSTP1	rs1138272	CC



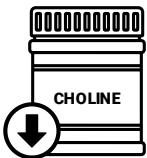
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DEFICIENCY OF COLINA

RESULTS



Choline is essential for brain and liver health, fetal development, fat metabolism, and more. Choline deficiency affects up to 90% of people; it can result in liver and muscle damage. PEMT gene encodes an enzyme that produces phosphatidylcholine and choline in the liver, which can make up for a mild choline deficiency due to poor diet. Normally, pseudocholinesterase concentrations vary by gender and must be within the following ranges: Normal values for women: 4300-11200 U.I./l; normal values for men: 5100 - 11700 I.U./l. People with the C/C genotype for the rs4646365 variant of the PEMT gene do not tend to have a choline deficiency compared to the C/T or T/T genotype which are associated with a lower plasma choline level.

People with your genetic profile are likely not to have a tendency for choline deficiency.

Choline levels can be important for certain sports, which means that checking their reference levels and taking care of their intake with food is important. For this purpose, we recommend consulting a nutritionist.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PEMT	rs4646365	CC



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COENZYME Q10 DEFICIENCY

RESULTS



Coenzyme Q10 is a molecule of the ubiquinone group and is involved in the transport of electrons in the mitochondria and in oxidative cell phosphorylation. Primary coenzyme Q10 deficiency is a disorder that can affect many parts of the body, especially the brain, muscles, and kidneys. It is caused by variations in the genes that provide instructions for making proteins involved in the production (synthesis) of a molecule called Coenzyme Q10. The NQO1 gene codes for an enzyme that makes Coenzyme Q10 available to the body. People with genetic variants of the NQO1 gene may not be able to make the coenzyme bioavailable to the body. Coenzyme Q10 is normally used in dosages between 30 and 100 mg per day, even if more generous quantities are sometimes recommended, up to 300 mg / day. People with the A/A or G/A genotype for the rs1800566 variant of the NQO1 gene tend to have a Coenzyme Q10 deficiency compared to the G/G genotype.

People with your genetic profile are likely not to have a Coenzyme Q10 deficiency.

Always keep the levels of this molecule under control if you are a sportsman and you want to get the most out of your body.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
NQO1	rs1800566	GG



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HISTAMINE INTOLERANCE

RESULTS



People with histamine intolerance have too much histamine in their body: they either create it in excess or they can't break it down quickly enough. As a result, when they eat foods that contain histamine, it crosses into their blood and they experience inflammation. By contrast, an unaffected person would break down most dietary histamine before it ever reaches the bloodstream. The most common culprit is low diamine oxidase (DAO), the enzyme that breaks histamine down in the gut. DAO is mostly found in the gut, though it's also in the kidneys and connective tissues. Because of its location in the gut, this enzyme is our primary defense against histamine and histamine-producing bacteria in our food. Unsurprisingly, DAO deficiency is the primary cause of histamine intolerance. People with the C/T or T/T genotype for the rs10156191 variant of the AOC1 gene are likely to have an increased risk of histamine intolerance, compared to the C/C genotype.

People with your genetic profile are likely to not have histamine intolerance.

We recommend checking the factors that cause an increase in histamine such as: physical stress (injury, surgery, bug bites, intense training without proper recovery), ongoing emotional stress (like balancing work, school or a social life with training demands), and a poor quality diet. The typical busy lifestyle of the athlete can trigger a histamine response more easily.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
AOC1	rs10156191	CC



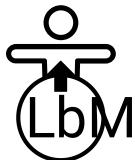
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GROWTH POTENTIAL OF LEAN MASS

RESULTS



Lean body mass refers to the mass part of a human that excludes fat deposits. Lean body mass has a strong genetic component; if you are predisposed to have a higher body lean body mass, you have a greater chance of reaching a muscular shape with exercise in a shorter time. A high lean body mass reduces the chance of becoming obese, of developing osteoporosis, and sarcopenia.

People with your genetic profile are likely to have a good growth potential of lean mass.

We recommend taking more calories than you burn. On average, you need around 2,800 calories to build a pound of muscle, largely to support protein turnover, which can be elevated with training. Your body can only accumulate around 227g of muscle each week, so if you eat too many excess calories trying to build more muscle, you run the risk of also increasing excess fat.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PATJ	rs1056513	GG



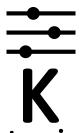
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POTASSIUM BALANCE (K)

RESULTS



Potassium

Potassium is mainly found in intracellular liquids, where it performs the same functions performed by sodium outside the cell: it regulates neuromuscular excitability, rhythmicity of the heart, osmotic pressure, acid-base balance and water retention. Potassium is found in numerous foods such as beans and dried peas, asparagus, potatoes, apricots, bananas, cauliflowers, spinach. The predominantly anaerobic exercise is accompanied by a potassium leakage from the muscle tissue; this phenomenon, together with the hemoconcentration and the possible release of potassium by the erythrocytes, determines an increase in the concentration and total plasma content of potassium, even if of short duration, the extent of which is correlated with the intensity of the muscular work. People with a T/T genotype for the genetic variant rs5219 of the KCNJ11 gene are likely to have an increased intracellular concentration of potassium compared to the T/C or C/C genotypes, which are associated with a lower intracellular concentration.

People with your genetic profile are likely to have a decreased intracellular concentration of potassium.

According to your genetic profile, your predisposition to have a reduced intracellular concentration of potassium can be managed with an expert who introduces supplements into your diet or who guides you to take foods with a higher content of potassium.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
KCNJ11	rs5219	TC



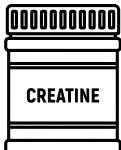
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CREATINE KINASE

RESULTS



Creatine kinase (CK) or creatine phosphokinase (CPK) is an enzyme found mainly in skeletal muscle tissue and heart fibers. Its main task is to "facilitate" some chemical reactions, which take place physiologically in our body. More specifically, creatine kinase allows the conversion of creatine into phosphocreatine, in order to consume ATP and generate highly exploitable energy. People with A/A genotypes for the variant rs4880 of the SOD2 gene, are likely to have a higher creatine kinase value after racing in comparison with the A/G or G/G genotype.

People with your genetic profile are likely to have a constant creatine kinase level after racing.

You are likely to have regular creatine kinase level after racing, and exercise programmes that include eccentric muscle contractions may result in significant serum CK elevations. It is important to keep the levels of this enzyme under control especially if you want to introduce it as a supplement.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
SOD2	rs4880	AG



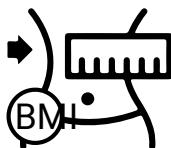
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WAIST-HIP RATIO ADJUSTED FOR BODY MASS INDEX

RESULTS



The waist-to-hip ratio that is appropriate to the body mass index is a surrogate measure of abdominal adiposity and has been correlated with direct assessments of abdominal fat. The genetic predisposition to abdominal adiposity is determined by variants of the DNA sequence. People with a C/C genotype for the variant rs9491696 of the RSPO3 gene are likely to have a regular distribution of body fat compared to the C/G or G/G genotype, which are associated with a greater distribution of body fat.

People with your genetic profile are likely to have a greater distribution of body fat.

According to your genetic profile, our advice is to lead an active life, keeping your body mass index between 25 and 30 kg/m² and limiting the formation of abdominal fat. This can be accomplished with the help of an expert who can help you to plan your workouts.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
RSPO3	rs9491696	GG



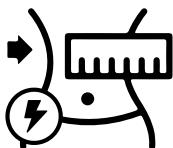
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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

WAIST-HIP RATIO (ENERGY INTERACTION WITH THE DIET)

RESULTS



The waist-hip ratio or waist-to-hip ratio (WHR) is the dimensionless ratio of the circumference of the waist to that of the hips. This is calculated as waist measurement divided by hip measurement ($W \div H$). Given evidence that ADAMTS9 T2D risk alleles are associated with insulin resistance in peripheral tissues, these findings are consistent with the primary effect of ADAMTS9 variants on body fat distribution. People with a C/C genotype have a regular distribution of body fat in response to diet compared to the C/A or A/A genotypes which are associated with an enhanced distribution of body fat in response to diet.

People with your genetic profile are likely to have a typical distribution of body fat in response to diet.

We recommend asking a nutritionist for advice on a low fat diet with an appropriate balance of all other nutrients if you wish to reduce your body weight and waist-hip ratio.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ADAMTS9	rs6795735	CC



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KIT ID: TPD16382842155959

BODY MASS INDEX (NON-SMOKING VS. SMOKERS INTERACTION)

RESULTS



The Body Mass Index is an important tool for measuring a person's appropriate weight in regards to their height. Results confirm that genetic factors play a substantial role as shown by the large attributable risks related to this genetic polymorphism. Our report also highlights the need to adhere to healthy lifestyles. Another interesting correlation that has been demonstrated is the interaction between smoking and BMI. People with a T/T or T/C genotype in the variant rs460184 for the CFH gene, have an increase in body mass index in response to cigarette smoking compared to the C/C genotype.

People with your genetic profile are likely to have an increase in body mass index in response to cigarette smoking.

According to your genetic profile, we recommend embracing a healthier lifestyle, especially in regards to cigarette consumption, as well as paying close attention to nutrition.



SCIENTIFIC DETAILS

Gene	rsID	Genotype



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SUBCUTANEOUS ADIPOSE TISSUE

RESULTS



Subcutaneous adipose tissue (SCAT) is located in many body regions, but is predominant in the thigh and buttock areas. Abdominal subcutaneous adipose tissue may also be a typical accumulation zone, which is not to be confused with visceral adipose tissue. People with A/G or G/G genotypes for the variant rs2304795 of the PLIN1 gene are likely to have a reduced tendency to accumulate subcutaneous adipose tissue, compared with the A/A genotype.

People with your genetic profile are likely to have a reduced accumulation of subcutaneous adipose tissue.

Your genetic profile suggests that your body is favoured by not accumulating fat, nevertheless we recommend adopting a sporty lifestyle accompanied by proper nutrition. In fact, by not observing dietary rules and leading a sedentary lifestyle, you can easily incur weight gain regardless of one's genetic predispositions.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PLIN1	rs2304795	AG



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WAIST CIRCUMFERENCE ADJUSTED FOR BODY MASS INDEX

RESULTS



Waist circumference is a measurement taken around the abdomen at the level of the umbilicus (belly button). Health experts use waist circumference to screen patients for possible weight-related health problems. Experimental studies show that MC4R is a key regulator of energy balance, influencing food intake, and energy expenditure through functionally divergent central melanocortin neuronal pathways. Alterations in MC4R signal affect glucose utilization and insulin sensitivity, thus determining waist circumference. People with a G/G or G/A genotype for the rs12970134 variant of the MC4R gene tend to have a smaller waist circumference compared to the A/A genotype, which is associated with a waist circumference about 2 cm more than average.

People with your genetic profile tend to have a smaller waist circumference than average.

Although your body promotes you to accumulate less fat on your waist, a healthy diet is recommended, as well as adequate sporting activity.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MC4R	rs12970134	GG



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OBESITY IN THE ABSENCE OF METABOLIC DISEASES

RESULTS



The peripheral transmission of central commands to the fat stores is mediated by the sympathetic nervous system. B-adrenoceptor gene families (ADRB2, ADRB3, ADRB1) are intensively studied candidate genes in the obesity field for their participation in energy expenditure regulation. People with a G/G genotype in the rs1801253 variant for the ADRB1 gene have a lower tendency to become obese compared to the G/C or C/C genotypes.

People with your genetic profile have a greater tendency to become obese.

According to your genetic predisposition, we suggest a low calorie diet and an increase in energy expenditure through physical activity. A Mediterranean-type diet may help to have a good intake of unsaturated fats. The help of an expert in meal planning is strongly suggested.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ADRB1	rs1801253	CC



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KIT ID: TPD16382842155959

TAKING DIETARY MACRONUTRIENTS

RESULTS



Food contains numerous types of nutrients, many of which are carbohydrates, fats, and proteins. The sum of these energetic macro-nutrients determines the caloric value of any food. The energy obtained is used for basal metabolism, physical activity, thermoregulation, and digestion. The MTNR1B polymorphism could be associated with individual differences in the loss of weight induced by a low-calorie diet. People with the C/C genotype for the variant rs10830963 of the MTNR1B gene tend to lose weight by taking personalised dietary macronutrients compared to the C/G or G/G genotype, who do not lose as much as weight while following a macronutrient type diet.

People with your genetic profile tend to lose weight by taking personalised dietary macronutrients.

We recommend a balanced diet of macronutrients such as carbohydrates, fats and proteins. Focusing on the quality of the food eaten is important in order to help our body get used to the correct absorption of the ingested active ingredients.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MTNR1B	rs10830963	CC



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POSTPRANDIAL RESPONSE OF TRIGLYCERIDES TO HIGH-FAT DIET MEALS

RESULTS



Adiponectin is the most abundant adipokine secreted by the adipocytes. There is a lesser concentration of circulating adiponectin in people who are obese or have Type 2 diabetes. It is proposed that this hormone is a key player in the etiology of metabolic syndrome (MetS), because it may be an important regulator of insulin sensitivity and inflammation. Thus, polymorphisms in the ADIPOQ gene and its receptors, ADIPOR1 and ADIPOR2, might play a role in the pathogenesis of the MetS. People with a C/C genotype in the rs266729 variant for the ADIPOQ gene are likely to have higher plasma fat concentration compared to the C/G or G/G genotype, which is associated instead with lower plasma fat concentration.

People with your genetic profile tend to have a higher plasma fat concentration.

According to your genome, we suggest asking an expert for a balanced dietary fat intake to avoid an unwanted body weight increase.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
ADIPOQ	rs266729	CC



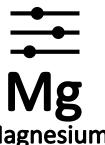
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MAGNESIUM BALANCE (MG)

RESULTS



Magnesium is one of the most important trace elements for our well-being. In our body it is found mainly in the bones and muscles and is essential for the health and balance of the body. It helps to regulate the transmission of nerve signals, and is responsible for the muscle contraction of the heart cells and helps to control the heartbeat and blood pressure. It has been shown that people with the C/T or T/T genotype for the rs603894 variant of the METTL21C gene are likely to have a lower magnesium level, compared with C/C genotype which is associated with regular magnesium levels.

People with your genetic profile are likely to have a normal Magnesium level.

It is always advisable to supplement magnesium and fluids lost after exercise in order to maintain normal muscle function and long-term performance levels. Physical effort causes the athlete to lose fluids and minerals. Therefore, it is particularly important to replenish mineral deposits after exercise to maintain performance.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
METTL21C	rs603894	CC



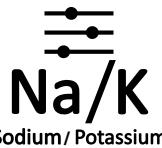
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BALANCE OF SODIUM / POTASSIUM RATIO (NA/K)

RESULTS



A diet high in sodium and low in potassium has implicated in the cause of increased blood pressure. However, the response of blood pressure to the dietary intake of sodium and potassium varies considerably from individual to individual. Part of the change in blood pressure response due to dietary sodium and potassium between individuals can be explained by variations in the WNK1 gene, which encode for a protein that regulates the activation of the calcium and potassium channels. People with A/C or C/C genotypes for the rs956868 variant of the WNK1 gene are likely to have a high sodium/potassium ratio, compared to A/A genotype, which is associated with regular levels.

People with your genetic profile are likely to have a high sodium/potassium ratio.

We recommend asking an expert how to supplement the salts lost during physical activity. We also recommend taking liquids both 2 hours before the start and during physical activity (on average every 20 minutes) to ensure the athlete an adequate state of hydration, especially with a high sodium / potassium ratio.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
WNK1	rs956868	AC



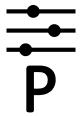
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PHOSPHORUS BALANCE (PH)

RESULTS



Phosphorus

Phosphorus is found in the body both in organic and inorganic form mainly in the bones and teeth (about 80%), but also in the blood and soft tissues. The foods that mainly contain phosphorus are milk, cheese, fish, meat, dried fruit and whole grains. Phosphorus performs numerous functions in the body including regulating the pH of the blood, and the formation of high energy bonds such as in ATP, in proteins, in phospholipids, in nucleic acids and nucleotides. High serum phosphate levels are associated with vascular calcification, cardiovascular disease and death in dialysis patients. In contrast, a phosphorus deficiency is associated with weakness, bone demineralization, anorexia and malaise. It has been shown that people with the T/C or C/C genotype for the rs947583 variant of the PDE7B gene are likely to have phosphorus alteration levels, compared to the T/T genotype.

People with your genetic profile have a tendency to have altered phosphorus levels.

We recommend taking phosphorus to improve endurance performance. However, its intake must be guided by an expert's consultation as an excess of phosphorus can have serious consequences. Phosphate is an important component of the high-energy compounds essential for muscle function, as well as compounds that participate in oxygen delivery to muscle. Phosphates can also act as acid neutralizers, which might have effects on fatigue.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PDE7B	rs947583	TC



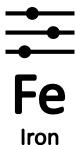
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IRON BALANCE (FE)

RESULTS



Iron is necessary for the synthesis of hemoglobin (protein that transports oxygen to cells), myoglobin and collagen; it is also indispensable for cellular respiration and in the metabolism of nucleic acids. The daily iron requirement for men amounts to 10mg, while for women of childbearing age it rises to 18mg. Normally, an adequate diet compensates for the elimination of iron and is kept in balance thanks to the iron reserves in the body and the regulation of the absorption and elimination mechanism. It has been demonstrated that people with G/A or A/A genotype for the rs9948708 variant of the RELCH gene are likely to have low iron levels.

People with your genetic profile are likely to have altered iron levels.

Your predisposition may require asking advice of an expert for supplements. We recommend taking adequate amounts of iron with the diet, which is the first source of iron, especially in cases of intense physical activity. A common problem for iron-deficient athletes is the inability to maintain a steady heart rate during moderate to vigorous exercise.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
RELCH	rs9948708	AA



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ZINC BALANCE (ZN)

RESULTS



The human body contains about 2-4 grams of zinc, most of which is found in the organs, with higher concentrations in the prostate and eyes. It is also abundant in the brain, muscles, bones, kidneys, and liver. Sperm has particularly high levels of zinc, which is a key element in the proper functioning of the prostate gland and for the growth of the reproductive organs. A zinc deficiency can be caused by insufficient or poor absorption of zinc in the diet or by an excessive urinary elimination of it. The symptoms linked to zinc deficiencies are very varied: skin changes, tiredness, loss of appetite, slow wound healing, reduction of the immune response with susceptibility to infections, alopecia, reduction of taste sensitivity and night blindness. People with the G/T or T/T genotypes for the rs12906126 variant of the SCAMP5 gene are likely to have lower zinc levels, compared to the G/G genotype.

People with your genetic profile are likely to have a regular zinc level.

We recommend keeping zinc quantities in check, especially if you are doing intense workouts. In fact, for sedentary people with this genetic profile, it is probably not necessary to take any precautions. However, athletes engaged in competitive activities usually require higher quantities of most vitamins and minerals, including zinc.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
SCAMP5	rs12906126	GG



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

VITAMIN A METABOISM

RESULTS



Vitamin A is one of the fat soluble vitamins. Vitamin A, retinoids, and their analogues can be produced by the body starting from B-carotene, the precursor of vitamin A, or may be taken through food, particularly through fruit and vegetables. B-carotene is converted into vitamin A in the intestine by the enzyme B-carotene 15, 15-monoxygenase. In the eye, vitamin A is in turn converted into 11-cis-retinal; a visual chromophore, or a molecule that contributes to the absorption of photons in rods through a complex pathway known as the retinoid cycle. This is why when there is a deficiency of vitamin A, it is the eyes that are one of the first organs to suffer from it. Another effect of vitamin A deficiency is dry skin, with consequent desquamation, or thickening of the mucous membranes of the intestine, urinary tract and lungs in addition to impaired functioning of the immune system. However, too high doses of vitamin A (over 300 mg) cause acute poisoning characterised by nausea, vomiting, migraines, visual disturbances and loss of coordination of movement. People with an A/A or G/G genotype for the rs1984112 variant of the CD36 gene are likely to have a higher Vitamin A metabolism.

People with your genetic profile are likely to have a regular Vitamin A metabolism.

If your body does not suffer from particular vitamin deficiencies, we advise you not to take artificial supplements of this vitamin. The intake of this vitamin from the diet is more than enough.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
CD36	rs1984112	AA



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VITAMIN B2 METABOLISM

RESULTS



Riboflavin, more commonly known as vitamin B2, is a heterocyclic compound obtained from a flavin molecule to which a chain formed of ribitol is linked. It is a yellow compound slightly soluble in water, stable to heat (cooking causes inactivation of only 10-20% of the total quantity). Alcohol inhibits its absorption. Caffeine, theophylline, saccharin, tryptophan, vitamin C and urea reduce its bioavailability. The passage of riboflavin into the tissues occurs through facilitated transport and at high concentrations by diffusion. The organs that contain the most are the liver, heart and intestines. Riboflavin as an essential component of the FMN and FAD coenzymes participates in the oxidation reduction reactions of numerous metabolic pathways (carbohydrates, lipids and proteins) and in cellular respiration. The administration of riboflavin at high doses even for prolonged periods does not cause toxic effects since intestinal absorption does not exceed 25 mg. This is because there is an upper limit to tissue accumulation. People with the A/G or G/G genotypes for the rs1801394 variant of the MTRR gene are likely to have a higher Vitamin B2 metabolism, compared to the A/A genotype.

People with your genetic profile are likely to have a higher Vitamin B2 metabolism.

Riboflavin deficiency can alter the metabolism of other nutrients, in particular other B vitamins through reduced levels of flavin coenzymes. Seek advice from an expert to start integrating this vitamin into your diet.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MTRR	rs1801394	AG



KIT ID: TPD16382842155959

VITAMIN C METABOLISM

RESULTS



Vitamin C is known to protect mucosal tissues from oxidative stress and inhibit nitrosamine formation in the stomach. High consumption of fruits, in particular citrus, and higher circulating vitamin C concentrations may help protect against gastric cancer. The deficiency of vitamin C in adults appears after 45-80 days, in consideration of the relatively large deposits and can lead to scurvy. The initial symptomatology is non-specific, in fact, tiredness, fatigue, loss of appetite, muscle pain and increased sensitivity to infections appear. The G/G genotype for the rs6133175 variant of the SLC23A2 gene has been associated with a tendency to have a higher Vitamin C metabolism, compared to the A/A or A/G genotypes.

People with your genetic profile are likely to have a higher Vitamin C metabolism.

If you have an increased metabolism you may experience a drop in vitamin C levels. Therefore, we advise you to consult a doctor and introduce a vitamin C supplement to your diet. Pay particular attention to the doses to be taken, especially if you are a sportsman. The intake of vitamin C at high doses (up to 10 g/day) seems sufficiently safe, even if at higher doses, there are few side effects. In fact, an excess of vitamin C can lead to an increased production of oxalates, with a consequent increase in the risk of kidney stones and an increase in intestinal absorption of iron (non-emic), with potential iron overload.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
SLC23A2	rs6133175	AG



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VITAMIN D METABOLISM

RESULTS



Vitamin D is a fat-soluble organic compound, similar in chemical structure to steroid hormones, which are responsible for covering important functions in the human body including promoting the absorption of calcium in the intestine, maintaining normal blood levels of calcium and phosphorus, and strengthening bones through the deposition of calcium in the bone tissue. Vitamin D deficiency can depend on various factors such as inadequate sun exposure, insufficient dietary intake of vitamin D, presence of kidney or liver disease, increased body needs and taking some specific drugs. Excess vitamin D can be harmful to health. This depends on the actual levels of Vitamin D that can trigger intoxication in the body. The symptoms of vitamin D hypervitaminosis are nausea, diarrhea and polyuria. People with the A/G or G/G genotypes for the rs1007392 variant of the PDE3B gene are likely to have a lower vitamin D metabolism, compared to the A/A genotype.

People with your genetic profile are likely to have a regular vitamin D metabolism.

We recommend monitoring the level of vitamin D, taking into consideration that the optimal concentration value in the blood 100 nmol/L. Vitamin D deficiency is linked to an increased risk of inflammatory lesions, stress fractures, and muscle pain/weakness. Athletes who suffer from these symptoms can resort to periodic monitoring of vitamin D levels. Vitamin D can be absorbed through exposure to sunlight, however, the weight, geographical position and skin color of an individual can influence the way vitamin D is activated by ultraviolet light.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PDE3B	rs1007392	AA



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VITAMIN E METABOLISM

RESULTS



Vitamin E or tocopherol prevents the oxidation reactions of polyunsaturated lipids and acts as a biological antioxidant. In particular, tocopherol is the main fat-soluble antioxidant in the human body to exert a protective effect against oxidative stress. The absorption of tocopherol occurs mainly in the medial part of the small intestine by passive diffusion. Like all fat-soluble vitamins, the absorption of tocopherol also requires adequate micellar emulsion and solubilization. Situations of tocopherol deficiency in humans under normal conditions are very rare. It is very difficult to induce a deficiency of vitamin E in adults, both due to its diffusion in food and for the reserves already in the body. It has been demonstrated that people with C/T or T/T genotype for the rs7834588 variant of the NKAIN3 gene are likely to have a higher Vitamin E metabolism, compared to the C/C genotype.

People with your genetic profile have a tendency to have a higher Vitamin E metabolism.

We recommend taking 8-10 mg of vitamin E daily. Vitamin E is important to athletes because it is an antioxidant and may help to prevent some of the oxidative damage that may occur from exercise. Vitamin E promotes a healthy immune system and may help to prevent the dip in immune function that may occur right after exercise. Vitamin E also helps to ease muscle cramps. Supplements of alpha-tocopherol or mixed tocopherols (alpha-, beta- and gamma-tocopherols) may be required, ask an expert for advice.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
NKAIN3	rs7834588	CT



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VITAMIN B12 METABOLISM

RESULTS



The term vitamin B12 identifies a group of chemically related organic substances containing cobalt and therefore known as cobalamin. The main coenzymatic forms are methylcobalamin, hydroxocobalamin and deoxyadenosylcobalamin. A deficiency of vitamin B12 induces a disease known as pernicious anemia. This disease is due not so much to the lack of the mineral as to the shortage of erythrocytes. The B12 vitamin complex is in fact fundamental for the synthesis of red blood cells by the bone marrow. Precisely this primary function is particularly known in the world of sports where cyanocobalamin is included, together with iron and folic acid, in the products intended to solve cases of "sports pseudoanemia". People with the G/C or C/C genotypes for the rs1801198 variant of the TCN2 gene are likely to have a lower Vitamin B12 metabolism, compared to the G/G genotype.

People with your genetic profile are likely to have a lower Vitamin B12 metabolism.

We recommend taking adequate quantities of vitamin B12 (The normal range for vitamin B12 in the blood is between 200 and 900 nanograms per milliliter (ng / mL). Vitamin B12 is necessary for the production of red blood cells, protein synthesis and tissue repair and maintenance. Some data suggest that exercise can double the need for B vitamins. A severe B12 deficiency can cause anemia and reduced performance.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
TCN2	rs1801198	GC



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METABOLISM OF OMEGA 3

RESULTS



Omega-3 (or PUFA n-3) is a category of essential fatty acids. They are known above all for their presence in cell membranes and for maintaining their integrity. All omega-3 and some omega-6 support the anti-inflammatory function, however, other omega-6 may support the pro-inflammatory function. The fatty acid levels and balance of the two series seem to be important for the prevention and treatment of coronary heart disease, hypertension, immune and inflammatory disorders. People with the C/T or T/T genotype for the rs174583 variant of the FADS2 gene are likely to have a higher Omega-3 metabolism, compared to the C/C genotype.

People with your genetic profile are likely to have a higher Omega-3 metabolism.

A higher metabolism than Omega-3 means consuming more of it in less time. This may require increasing your intake of omega-3 through food supplementation, seeking advice from an expert. Omega-3 fatty acids help fight inflammation and reduce the joint pain and tenderness associated with arthritis.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
FADS2	rs174583	CT



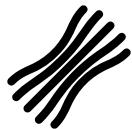
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TENDINOPATHY

RESULTS



The tendon connects your calf muscles to your heel bone. Tendinopathy describes either inflammation or tiny tears in the tendon. People who play sports and runners who place stress on the achilles tendon have the greatest likelihood of experiencing tendinopathy. If you have a C/C genotype you may be more "Injury-Prone," while other genotypes have a "Typical" likelihood of developing Achilles tendinopathy. In a small study, people with the G/G genotype at rs679620 of the MMP3 gene had 2.5 times more chance of developing Achilles tendinopathy compared to other genotypes.

People with your genetic profile have an increased likelihood of getting tendonitis.

According to your genetic profile you are more likely to develop tendinopathy caused by physical activities and sports that affect the Achilles tendon in a specific way. In general, an intense period of physical activity may also lead to injuries.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MMP3	rs679620	CC



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SPORT INJURY RISK

RESULTS



Sports injuries are common, and it is sensible to take general precautions in order to avoid them. The most common injuries involve ligaments. It has been demonstrated that the presence of variant genes related to general inflammation led, for example, to an higher predisposition to break ligaments. In this case, If you incur a soft tissue injury, your inflammation levels could have an impact on recovery. It has been shown that people with the C/A or A/A genotype for rs1800012 of the COL1A1 gene are likely to have a lower tendency to incur sport injuries as compared to the C/C genotype.

People with your genetic profile are likely to have a regular tendency to incur in sport injuries.

We recommend asking an expert to plan workouts for you that increase muscle flexibility in order to allow you to quickly dissipate stress on ligaments and joints in order to avoid injuries.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
COL1A1	rs1800012	CC



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CRUCIATE LIGAMENT/ANTERIOR CRUCIATE LIGAMENT INJURIES

RESULTS



An anterior cruciate ligament injury is when the anterior cruciate ligament (ACL) is either stretched, partially torn, or completely torn. The most common ACL injury is a complete tear. Symptoms include pain, a popping sound during the injury event, instability of the knee, and swelling of the joint. Swelling generally appears within a couple of hours. In approximately 50% of cases, other structures of the knee such as surrounding ligaments, cartilage, or meniscus are damaged. The underlying mechanism often involves a rapid change in direction, a sudden stop, landing badly after a jump, or direct contact to the knee. It is more common in athletes, particularly those who participate in alpine skiing, football (soccer), American football, or basketball. The C/T, T/T genotype for the variant rs12722 of the COL5A1 gene, has been shown to be a risk factor for ACL injury compared to other people.

People with your genetic profile likely have a high risk factor for anterior cruciate ligament injuries.

Based on your genetic profile, we recommend performing exercises that increase the resistance of the elements that make up the joint. For example, by performing exercises such as squats, leg extensions and lunges. The therapeutic recommendations in case of injuries depend on the daily level of physical activity. In the case of low levels of physical activity, non-surgical management of injuries may be sufficient, including muscle strengthening and physiotherapy.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
COL5A1	rs12722	CT



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CARPAL TUNNEL SYNDROME

RESULTS



Carpal tunnel syndrome (CTS) is a medical condition due to compression of the median nerve as it travels through the wrist at the carpal tunnel. The main symptoms are pain, numbness, and tingling in the thumb, index finger, middle finger and the thumb side of the ring finger. These symptoms typically start gradually and during the night. Pain may extend up the arm and a weakening of your hand grip strength may occur. In more than half of cases, both sides are affected. Risk factors for this condition include: obesity, repetitive wrist work, pregnancy, rheumatoid arthritis, and a genetic predisposition. People with a C/C genotype for the variant rs13946 of the COL5A1 gene have lower predisposition to develop carpal tunnel syndrome in comparison with the C/T or T/T genotype.

People with your genetic profile are likely to have a lower tendency to develop carpal tunnel syndrome.

Although your genetic profile favours you from developing carpal tunnel syndrome, we still recommend exercises and stretching that make the tendons more flexible and prepares them for physical activity, such as mobilising and rotating the wrist.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
COL5A1	rs13946	CT



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

SHOULDER DISLOCATION

RESULTS



Shoulder dislocation is when the head of the humerus is out of the shoulder joint. Symptoms include shoulder pain and a feeling of instability. Complications may include a Bankart lesion, Hill-Sachs lesion, rotator cuff tear, or injury to the axillary nerve. A shoulder dislocation often occurs as a result of a fall onto an outstretched arm or directly onto the shoulder. Treatment is by shoulder reduction which may be accomplished by a number of techniques. These include traction-countertraction, external rotation, scapular manipulation, and the Stimson technique. People with a C/C genotype for the variant rs1800012 of the COL1A1 gene have an average tendency to easily dislocate their shoulder compared to the C/A or A/A genotype which is associated with a lower tendency to dislocate their shoulder.

People with your genetic profile likely have a regular tendency to dislocate their shoulder easily.

Based on your genetic profile we recommend that you pay attention to falls and try to wear adequate protection while playing sports, as this is the only way to prevent shoulder dislocation.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
COL1A1	rs1800012	CC



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

STRESS FRACTURE PERIOD PREVALENCE

RESULTS



Stress fractures affect athletes. The anatomical site of the stress fracture is influenced by the type of training, with classical march drills causing more foot injuries, and long distance marching and running causing more long bone stress fractures. People with T/T genotype for the rs1021188 variant of the RANKL gene seem to be associated with a lower tendency to develop stress fractures compared to the C/C or C/T genotype.

People with your genetic profile are likely to have a lower tendency to develop stress fractures.

Based on your genetic profile, we recommend that you ask an expert's advice before performing any new exercises in order to carry out your exercises correctly and without excess. A poorly performed exercise can be very harmful to your health.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
RANKL	rs1021188	CT



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KIT ID: TPD16382842155959

ROTATOR CUFF DISEASE

RESULTS



Rotator cuff disease is damage to the rotator cuff that can be due to trauma, as from falling, injuring the shoulder, or overuse of the joint in sports, particularly those that involve repetitive overhead motions. Other causes could be due to inflammation caused by tendonitis, bursitis, or arthritis of the shoulder, or degeneration that occurs in the typical aging process. The main symptom of rotator cuff disease is shoulder pain of gradual or sudden onset, typically located to the front and side of the shoulder which increases when the shoulder is moved away from the body. A person with torn rotator cuff tendons may not be able to hold the arm up because of pain. Treatment depends on severity. Mild rotator cuff disease is treated with application of ice, rest, and use of anti-inflammatory medications. People with a C/G or G/G genotype for the variants rs1800972 of the DEFB1 gene are likely to have a higher tendency to develop rotator cuff disease compared to C/C genotype.

People with your genetic profile are likely to have regular susceptibility to rotator cuff disease.

Despite that fact that you are not particularly predisposed to have rotator cuff injuries, we strongly recommend, in accordance with your workouts habits, to exercise the shoulder regularly to maintain flexibility and muscle strength.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
DEFB1	rs1800972	CC



KIT ID: TPD16382842155959

MUSCLE CRAMPS

RESULTS



A muscle cramp is a sudden and involuntary contraction of your muscles. Though generally harmless, muscle cramps can make it temporarily impossible to use the affected muscle. Long periods of exercise or physical labor, particularly in hot weather, can lead to muscle cramps. Some medications and certain medical conditions also may cause muscle cramps. You usually can treat muscle cramps at home with self-care measures. People with an A/A or A / T genotype for the variants rs1049434 of the MCT1 gene are likely to have a decreased risk of developing muscle cramps after intense workout compared to the T/T genotype which is associated to a higher tendency to develop muscle cramps.

People with your genetic profile are likely to have an increased risk of incurring muscle cramps following intensive exercise.

Based on your genetic profile, we strongly advise you to plan your workouts with a personal trainer who is aware of your predisposition and prevents you from intense muscle cramps by including in your sports routine a complete stretching programme before and after a workout.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
MCT1	rs1049434	TT



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EXERCISE-INDUCED MYOPATHY

RESULTS



Skeletal muscle cells need energy to function and move the body. The AMPD1 gene provides instructions for producing an enzyme called adenosine monophosphate (AMP) deaminase. This enzyme is found in the muscles used for voluntary movements (skeletal muscles), where it plays a role in producing energy, and defect of it can manifest as exercise-induced muscle pain. People with G/A or A/A genotype for the rs17602729 variant of the AMPD1 gene are likely to have a higher tendency to experience myopathy compared to the G/G genotype.

People with your genetic profile are likely to have a low tendency to experience myopathy.

Your genome helps you practice intense activities and reduce the possibility of suffering from myopathy. However, the best strategy for staying healthy is not to overdo the training and follow expert advice.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
AMPD1	rs17602729	GG



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KIT ID: TPD16382842155959

QUADRICEPS STRENGTH

RESULTS



The quadriceps is the most voluminous muscle in the anterior region of the thigh. The quadriceps are mainly made up of white fibers, which allow powerful and explosive movements. During these violent contractions, the quadriceps can break near the musculotendinous junction. People with an A/A or A/C genotype for the genetic variant rs2228570 of the VDR gene can build muscle easier on their quadriceps compared to the C/C genotype. Your quadriceps, or quads, play a vital role in nearly all of your leg movements, so it's important to keep them strong and flexible. Having weak quads can not only diminish your knee function, but research shows it may also put you at risk for knee cartilage loss, the hallmark trait of knee osteoarthritis.

People with your genetic profile are likely to increase quadriceps strength easier during workouts.

According to your genome, you are advantaged in building strength to create a more stable joint, which can reduce pain and improve function. You're probably not going to see yourself get better if you're not doing stretching or strengthening or modification of your activities with the help of an expert.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
VDR	rs2228570	AA



KIT ID: TPD16382842155959

JOINT MOBILITY

RESULTS



Joint flexibility and range of movements can be increased through stretching, however, some people show a propensity for flexibility. Genetic variants in collagen genes influence the architecture and mechanical properties of tissues such as ligaments. Therefore people with these variants have greater joint flexibility. Other genetic variants in collagen genes reduce flexibility and potentially protect against ligament rupture. If you have a C/T or T/T genotype for the rs970547 of the COL12A1 gene you are likely to have a lower range of joint motion and less joint laxity and flexibility, compared to the C/C genotype.

People with your genetic profile have a lower range of joint motion and less joint laxity and flexibility.

We recommend moving a lot if you spend much of your time sitting. Try to stretch the muscles every day or at least three times a week, but do not do it when the muscles are cold. First, do a gentle warm-up such as walking for 10 minutes to loosen the joints, ligaments, and tendons that surround them.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
COL12A1	rs970547	TT



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

PREDISPOSITION TO TENDINOPATHIES

RESULTS



Tendonitis is the inflammation of the tendons, that is the structures of elastic connective tissue that join the muscles to the bones. Hypoxia is the critical factor for triggering tendinopathies since it promotes the synthesis of type III collagen, less resistant than type I (typical of the tendon), and stimulates the production of proinflammatory molecules that lead to degenerative phenomena, to the production of metalloprotease. People with the G/A or A/A genotype for the rs4789932 variant are likely to have inhibited metalloproteases, which can lead to inflammation, compared to the G/G genotype.

People with your genetic profile are likely to have a low predisposition to tendonitis and other tendinopathies.

We recommend performing stretching exercises, in the case of tendinitis it serves mainly to combat the consequent joint stiffness, and motor exercises for reinforcement.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
TIMP2	rs4789932	GG



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PREDISPOSITION TO THE DEVELOPMENT OF INGUINAL STRESS HERNIAS

RESULTS



This gene encodes a member of the fibulin family of extracellular matrix glycoproteins. Dysregulation of collagen homeostasis is thought to play an important role in the development of inguinal hernias. Collagen is the main structural protein of the abdominal fascia, and undergoes a continuous process of synthesis and degradation. Individuals with indirect inguinal hernias have been found to have lower levels of collagen and showed a decreased ratio of type I to type III collagen. People with an A/A genotype for the rs11899888 variant for the EFEMP1 gene tend to have a low predisposition for inguinal stress hernias compared to the A/G or G/G genotype which is associated with a higher predisposition.

People with your genetic profile are likely to have a low predisposition for inguinal stress hernias.

After training we recommend that you rest and in particular, to relax after having sought out the most comfortable position. Even if you are low risk, these precautions lead to less susceptibility.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
EFEMP1	rs11899888	AA



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KIT ID: TPD16382842155959

RISK OF SUFFERING MUSCLE DAMAGE

RESULTS



Skeletal muscle damage generally occurs as a result of participating in intense sports activities such as bodybuilding or weightlifting. The A/G or G/G genotypes for the rs1860189 of the CCL2 gene, compared to the A/A genotype, were associated with altered pre-exercise CK levels and this condition is associated with exercise-induced muscle damage which can result in an exaggerated damage response to strenuous exercise.

People with your genetic profile are likely to have a regular risk of suffering muscle damage.

It is advisable to avoid putting too much pressure on the muscles during normal daily activities, such as the sudden lifting of heavy loads, during sports or during work activities. Always perform proper muscle warm-ups before carrying out any weight lifting exercises.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
CCL2	rs1860189	AA



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KIT ID: TPD16382842155959

PROPENSITY TO THE DEVELOPMENT OF MUSCLE PAIN

RESULTS



Myalgia is pain localised in one or more muscles. This symptom can manifest itself due to various causes such as excessive effort, trauma, and systemic diseases. Often, well-localized myalgia is due to an involuntary and sudden muscle contraction or a partial injury to the muscle structure due to trauma. If you have a predisposition to muscle pain it is recommended to work on resistance.

People with your genetic profile are likely to have a normal propensity to feel muscle pain.

We recommend avoiding unusual movements, intense efforts, negative muscle movements (eccentric contractions), or sudden changes of the body position. The predisposition for muscle pain is also directly proportional to the level of performance and beginners are more affected since they are not used to the effort. But if you observe persistence of the problem, you should take precautions.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
SLC30A8	rs13266634	CC



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KIT ID: TPD16382842155959

SLOW MUSCLE REPAIR

RESULTS



Insulin-like growth factors, also known as IGF, are a group of peptide hormones with anabolic properties, produced by the liver under the stimulus of growth hormone (GH), which in turn is produced in the pituitary gland. The IGF-2 gene, along with isoform 1, has the task of repairing the muscle as during exercise it undergoes microscopic trauma. The IGF-2 protein causes muscle growth by stimulating the development of its reserve stem cells. The G/G or G/T genotype for the rs7924316 variant of the INS-IGF2 gene is associated with muscle injury and longer recovery times.

People with your genetic profile are likely to have a good muscle repair ability.

We recommend that you give priority to rest to repair the damage created by intense training and do not resume immediately with the creation of new muscle mass; give yourself adequate recovery time. A trained muscle with low repetitions, high loads and recovery times between longer sets requires at least 1 week of recovery.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
INS-IGF2	rs7924316	TT



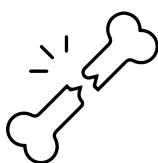
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KIT ID: TPD16382842155959

STRESS FRACTURE

RESULTS



Repetitive stresses, such as long distance running or repetitive jumps, can cause small cracks in the bone called stress fractures. Anyone can experience stress fractures, but some people have a predisposition associated with low bone density. Some genetic variants protect against fractures, as they result in greater activation of stress-induced proteins. It has been demonstrated that people with the C/C genotype for the rs1286083 variant of the RPS6KA5 gene, are likely to have a lower tendency to get stress fractures, compared with the T/C and T/T genotype which is associated with a regular tendency to get stress fractures.

People with your genetic profile are likely to have a low tendency to get stress fractures.

Even if your genetic profile suggests that you have a more resistant than average bone structure, it is always important not to inappropriately stress the limbs. In the event of a stress fracture, it is recommended that you consult your doctor and follow the treatment guidelines that he or she gives you. Don't ignore the pain, because it can cause serious problems.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
RPS6KA5	rs1286083	TC



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KIT ID: TPD16382842155959

JOINT FRAGILITY

RESULTS



The joints represent the junctions between two bones covered by a layer of cartilage. Under "normal conditions" cartilage has a smooth surface. Joints can often be painful; continuous passage or joint pain may be felt and the pains may be related to a specific joint or affect multiple joints. Exercise can lead to joint weakness especially in the knees and ankles. Therefore, in case of joint fragility, it is advisable to moderate physical effort. People with the A/G or G/G genotype for the rs16944 variant of the IL1B gene are likely to have high joint fragility, compared to the A/A genotype.

People with your genetic profile are likely to have an increased chance of joint fragility.

Symptoms, if manifested, can be alleviated by doing gentle exercises to strengthen and condition the muscles around the joints. The important thing is to do these strengthening exercises often and regularly. Use only small weights, if any.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
IL1B	rs16944	GG



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PROPENSITY TO THE DEVELOPMENT OF ARTHRITIC PROBLEMS

RESULTS



Arthritis includes a variety of inflammatory and noninflammatory joint diseases. Arthritis inflammation causes pain, stiffness, and swelling in the joints and surrounding tissues. Many people mistakenly perceive arthritis as any kind of pain or discomfort associated with body movement, including lower back pain, bursitis, tendonitis, and general stiffness or pain in the joints. However, these symptoms may not actually be caused by arthritis. People with the A/G or G/G genotype for the rs2476601 variant of the PTPN22 gene are likely to have an enhanced propensity to develop arthritic problems, compared to A/A genotype.

People with your genetic profile are likely to have an enhanced propensity to develop arthritic problems.

We recommend reducing the stress on your joints by losing weight, which will improve your mobility, decrease pain, and prevent future damage to your joints. Regular movement helps to maintain flexibility in your joints. Weight-bearing exercises such as running and walking can be damaging. Instead, try low-impact exercises such as water aerobics or swimming to flex your joints without adding further stress.



SCIENTIFIC DETAILS

Gene	rsID	Genotype
PTPN22	rs2476601	AG



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KIT ID: TPD16382842155959

ADVANCED MEDICAL CONDITIONS

QUICK SUMMARY

HEALTH		
CONDITION NAME	RESULTS	MAIN MESSAGE
Brugada syndrome	✓	People with your genetic profile are likely to not have genetic predisposition for Brugada Syndrome.
Arrhythmogenic right ventricular cardiomyopathy	✓	People with your genetic profile are likely to not have genetic predisposition for Arrhythmogenic right ventricular cardiomyopathy.
Long QT syndrome	✓	People with your genetic profile are likely to not have genetic predisposition for Long QT syndrome.
Wolff Parkinson White syndrome	✓	People with your genetic profile are likely to not have genetic predisposition for Wolff Parkinson White syndrome.
Catecholaminergic Polymorphic Ventricular Tachycardia	✓	People with your genetic profile are likely to not have genetic predisposition for Catecholaminergic Polymorphic Ventricular Tachycardia.
Generalized joint laxity	✓	People with your genetic profile are likely to not have genetic predisposition for Generalized joint laxity.



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BRUGADA SYNDROME

RESULTS



Brugada syndrome is a genetic disease that predisposes patients to fatal cardiac arrhythmias. The syndrome is characterized by the ECG findings of a right bundle branch block and ST-segment elevations in the right precordial leads (V1-V3). The first genetic association with Brugada syndrome discovered was a loss-of-function mutation in the cardiac voltage-gated sodium channel gene SCN5A. It is thought to be found in 15-30% of Brugada Syndrome cases. Mutations in calcium and potassium channels, associated channel proteins, and desmosomal proteins have also been linked with the disease. Brugada syndrome is inherited in an autosomal dominant pattern; however, affected individuals may demonstrate variable expressivity and reduced penetrance. Additionally, many environmental and genetic factors may influence the phenotype, including temperature, medications, electrolyte abnormalities, and cocaine. The prevalence of Brugada Syndrome is approximately 3 to 5 per 10,000 people. Brugada syndrome is approximately 8 to 10 times more common in males than females. This gender difference, however, is not found in pediatric patients. This has been hypothesized to be due to higher testosterone levels after puberty and different proportions of ionic currents based on sex. Brugada syndrome is also more prevalent in those who are of Southeast Asian descent. The mean affected age is 41 years old. Brugada syndrome accounts for 4% of all sudden cardiac deaths. The exact mechanism for Brugada Syndrome is not clear. Symptoms of Brugada syndrome range from the absence of any symptoms to sudden cardiac death. Sudden cardiac death typically occurs during sleep, possibly secondary to increased vagal tone. Approximately 80% of Brugada syndrome patients who develop ventricular tachycardia or ventricular fibrillation experience syncope. Palpitations and dizziness have also been described as possible symptoms. History of a febrile illness may be present as fever may precipitate symptoms and arrhythmias. 10 to 30% of Brugada syndrome patients will have an atrial arrhythmia, and supraventricular tachycardia is also more common in Brugada syndrome patients than the general population. However, 72% of those with Brugada syndrome will not show any symptoms, and 28% will not have a family history of sudden cardiac death. A 12-lead electrocardiogram is significant to both diagnose and decide management options of Brugada syndrome. Three different ECG patterns have been described in Brugada syndrome patients: coved ST elevations greater than 2 mm accompanied with an inverted T wave (type I), saddleback-shaped ST elevation greater than 2 mm (type II), and saddle-back shaped ST elevations less than 2 mm (type III). Additionally, patients with a normal ECG and high-risk factors may require a drug challenge test to reveal the typical ECG findings of ST elevations in the precordial leads V1 to V3. These high-risk factors that may require provocative drug testing include having a family history of Brugada syndrome, family history of sudden cardiac death, and symptoms consistent with Brugada syndrome in the setting of questionable ECG abnormalities. Class IA antiarrhythmics (such as procainamide and ajmaline) and IC antiarrhythmics (such as flecainide and propafenone), which act as sodium channel blockers, are the drugs used in the challenge test. Brugada ECG findings may also be revealed after cocaine use or tricyclic antidepressant toxicity. Electrolyte abnormalities, such as hyperkalemia and hypercalcemia have been known to reveal ST elevations in the right precordial leads. If a drug challenge test is normal in a pediatric patient, it may require repetition after the child reaches puberty, given the hormonal effects on Brugada syndrome phenotype. Another diagnostic test described to expose the ST elevations of Brugada syndrome is the full stomach test, where ECGs are obtained before and after a large meal, which causes an increase in vagal tone. Other tests that are useful for some patients include genetic testing for SCN5A mutations and invasive electrophysiology.

People with your genetic profile are likely to not have genetic predisposition for Brugada Syndrome.

According to the latest scientific discoveries, there is no documented genetic predisposition to Brugada syndrome in your results. Nevertheless, we recommend monitoring your cardiovascular health in accordance with your country's health recommendations and to check this finding again as we await the release of the new database from Clinvar.

SCIENTIFIC DETAILS

Gene	rslD	Genotype	Scientific Details
SCN5A	rs199473311	TT	
SCN5A	rs199473305	CC	



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

SCIENTIFIC DETAILS			
SCN5A	rs28937316	CC	✓
SCN5A	rs137854612	CC	✓
SCN5A	rs199473225	GG	✓
SCN5A	rs137854618	CC	✓
SCN5A	rs1417036453	GG	✓
SCN5A	rs72549410	CC	✓
SCN5A	rs28937318	CC	✓
SCN5A	rs1060501136	CC	✓
SCN5A	rs45546039	CC	✓
SCN5A	rs794728849	GG	✓
SCN5A	rs199473554	CC	✓
SCN5A	rs1553607561	AA	✓
SCN1B	rs16969925	GG	✓



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY

RESULTS



Arrhythmogenic right ventricular cardiomyopathy (ARVC) – previously referred to as arrhythmogenic right ventricular dysplasia (ARVD) – is characterized by progressive fibrofatty replacement of the myocardium that predisposes to ventricular tachycardia and sudden death in young individuals and athletes. It primarily affects the right ventricle, and it may also involve the left ventricle. The presentation of disease is highly variable even within families, and some affected individuals may not meet established clinical criteria. The mean age at diagnosis is 31 years (± 13 ; range: 4-64 years). The diagnosis of ARVC is made using a combination of noninvasive and invasive tests to evaluate cardiac structure and rhythm. The common genetic causes known to be associated with ARVC are: DSC2, DSG2, DSP, PKP2, and TMEM43. Less common genetic causes include CTNNA3, LMNA, RYR2, TGFB3. A subset of these 13 genes encode components of the desmosome. ARVC is typically inherited in an autosomal dominant manner. A proband with autosomal dominant ARVC may have the disorder as a result of a de novo pathogenic variant. The proportion of cases caused by a de novo variant is unknown. Each child of an individual with autosomal dominant ARVC has a 50% chance of inheriting the pathogenic variant. ARVC may also be inherited in a digenic manner (i.e., a single allele of two different genes has a pathogenic variant). Prenatal diagnosis for pregnancies at increased risk is possible if the pathogenic variant(s) have been identified in the family.

People with your genetic profile are likely to not have genetic predisposition for Arrhythmogenic right ventricular cardiomyopathy.

According to the latest scientific discoveries, there is no documented genetic predisposition to Arrhythmogenic cardiomyopathy of the right ventricle in your results. Nevertheless, we recommend monitoring your cardiovascular health in accordance with your country's health recommendations and to check this finding again as we await the release of the new database from Clinvar.

SCIENTIFIC DETAILS

Gene	rslD	Genotype	Scientific Details
RYR2	rs190140598	CC	✓
RYR2	rs121918602	TT	✓
TMEM43	rs63750743	CC	✓
SCN5A	rs137854613	GG	✓
DSP	rs886039343	CC	✓
DSP	no rslD	CC	✓
DSP	rs1554108050	GG	✓
DSP	rs770873593	CC	✓
DSP	rs397516940	CC	✓
DSP	rs794728124	CC	✓
PKP2	rs111517471	CC	✓
PKP2	rs794729098	AA	✓
PKP2	rs121434421	GG	✓
PKP2	rs193922674	CC	✓
PKP2	rs397517012	GG	✓



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

SCIENTIFIC DETAILS			
PKP2	rs78897684	CC	✓
PKP2	rs1453983744	TT	✓
PKP2	rs372827156	GG	✓
PKP2	rs397516986	GG	✓
PKP2	rs1425855043	CC	✓
PKP2	rs767987619	GG	✓
PKP2	rs794729132	GG	✓
PKP2	rs763303290	GG	✓
PKP2	rs760576804	CC	✓
PKP2	rs763639737	AA	✓
PKP2	rs121434420	GG	✓
DSG2	rs121913008	GG	✓



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

LONG QT SYNDROME

RESULTS



Long QT syndrome (LQTS) is a cardiac electrophysiologic disorder, characterized by QT prolongation and T-wave abnormalities on the ECG that are associated with tachyarrhythmias, typically the ventricular tachycardia torsade de pointes (TdP). TdP is usually self-terminating, thus causing a syncopal event, the most common symptom in individuals with LQTS. Such cardiac events typically occur during exercise and emotional stress, less frequently during sleep, and usually without warning. In some instances, TdP degenerates to ventricular fibrillation and causes aborted cardiac arrest (if the individual is defibrillated) or sudden death. Approximately 50% of untreated individuals with a pathogenic variant in one of the genes associated with LQTS have symptoms, usually one to a few syncopal events. While cardiac events may occur from infancy through middle age, they are most common from the preteen years through the 20s. Some types of LQTS are associated with a phenotype extending beyond cardiac arrhythmia. In addition to the prolonged QT interval, associations include muscle weakness and facial dysmorphism in Andersen-Tawil syndrome (LQTS type 7); hand/foot, facial, and neurodevelopmental features in Timothy syndrome (LQTS type 8); and profound sensorineural hearing loss in Jervell and Lange-Nielson syndrome.

People with your genetic profile are likely to not have genetic predisposition for Long QT syndrome.

According to the latest scientific discoveries, there is no documented genetic predisposition to Long QT syndrome in your results. Nevertheless, we recommend monitoring your cardiovascular health in accordance with your country's health recommendations and to check this finding again as we await the release of the new database from Clinvar.

SCIENTIFIC DETAILS

Gene	rsID	Genotype	Scientific Details
RYR2	rs794728721	GG	✓
RYR2	rs121918602	TT	✓
CAV3 SSUH2	rs116840778	GG	✓
SCN5A	rs199473311	TT	✓
SCN5A	rs28937316	CC	✓
SCN5A	rs137854613	GG	✓
SCN5A	rs137854618	CC	✓
SCN5A	rs72549410	CC	✓
SCN5A	rs45546039	CC	✓
SCN5A	rs794728849	GG	✓
KCNH2	rs794728403	GG	✓
KCNH2	rs1057520558	GG	✓
KCNH2	rs794728401	CC	✓
KCNH2	rs773724817	GG	✓
KCNH2	rs121912506	CC	✓
KCNH2	rs189014161	GG	✓



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

SCIENTIFIC DETAILS			
KCNH2	rs794728382	GG	✓
KCNH2	rs794728380	AA	✓
KCNH2	rs199472957	TT	✓
KCNH2	rs121912507	CC	✓
KCNH2	rs199472944	GG	✓
KCNH2	rs199473524	GG	✓
KCNH2	rs199472941	CC	✓
KCNH2	rs199473522	CC	✓
KCNH2	rs121912508	GG	✓
KCNH2	rs9333649	CC	✓
KCNH2	rs199473517	CC	✓
KCNH2	rs199472921	CC	✓
KCNH2	rs199472918	AA	✓
KCNH2	rs199472916	GG	✓
KCNH2	rs28928905	CC	✓
KCNH2	rs730880116	CC	✓
KCNH2	rs1057517742	GG	✓
KCNQ1	rs1554958043	AA	✓
KCNQ1	rs397508096	CC	✓
KCNQ1	rs762814879	GG	✓
KCNQ1	rs397508111	GG	✓
KCNQ1	rs179489	GG	✓
KCNQ1	rs179489	GG	✓
KCNQ1	rs139042529	CC	✓
KCNQ1	rs199472696	CC	✓
KCNQ1	rs120074178	GG	✓
KCNQ1	rs199472702	GG	✓
KCNQ1	rs151344631	GG	✓
KCNQ1	rs199472709	GG	✓
KCNQ1	rs199472713	CC	✓
KCNQ1	rs120074179	GG	✓
KCNQ1	rs199472719	CC	✓
KCNQ1	rs120074193	GG	✓



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

SCIENTIFIC DETAILS			
KCNQ1	rs120074194	GG	✓
KCNQ1	rs199472726	GG	✓
KCNQ1	rs120074180	CC	✓
KCNQ1	rs199472730	CC	✓
KCNQ1	rs120074186	GG	✓
KCNQ1	rs120074186	GG	✓
KCNQ1	rs120074184	GG	✓
KCNQ1	rs199472751	GG	✓
KCNQ1	rs199472755	CC	✓
KCNQ1	rs199472756	GG	✓
KCNQ1	rs12720459	CC	✓
KCNQ1	rs12720459	CC	✓
KCNQ1	rs1800171	GG	✓
KCNQ1	rs397508072	CC	✓
KCNQ1	rs397508075	CC	✓
KCNQ1	rs794728571	CC	✓
KCNQ1	rs1564825414	CC	✓
KCNQ1	rs17215500	CC	✓
KCNQ1	rs397508097	CC	✓
KCNQ1	rs199472795	CC	✓
KCNQ1	rs120074185	CC	✓
KCNQ1	rs878854348	GG	✓
KCNQ1	rs120074189	CC	✓
KCNQ1	rs120074190	GG	✓
KCNQ1	rs199472814	GG	✓
KCNQ1	rs794728537	CC	✓
CACNA1C	rs587782933	GG	✓
CACNA1C	rs79891110	GG	✓
CACNA1C	rs786205748	CC	✓
KCNJ2	rs104894580	CC	✓
KCNJ2	rs104894585	CC	✓
KCNJ2	rs104894578	CC	✓
KCNJ2	rs199473384	GG	✓



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DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

WOLFF PARKINSON WHITE SYNDROME

RESULTS



WOLFF PARKINSON WHITE SYNDROME

Wolff-Parkinson-White syndrome is caused by having an extra pathway in the heart that causes a very rapid heart rate. Normally, electrical signals in the heart go through a pathway that helps the heart beat regularly. The electrical pathway of the heart prevents extra beats from occurring and keeps the next beat from happening too soon. In people with Wolff-Parkinson-White syndrome, there is an extra, or accessory, pathway that may cause a very rapid heart rate. This extra electrical pathway is present from birth in people with the syndrome. In most cases, it is not known why a person with Wolff-Parkinson-White syndrome has an extra electrical pathway in the heart. In some cases, a genetic change (mutation or pathogenic variant) in the PRKAG2 gene causes the syndrome. This gene provides instructions to the body to make a protein that is likely involved in the development of the heart. When there is a pathogenic variant in the PRKAG2 gene, the heart may be more likely to develop the extra electrical pathway. Some people with pathogenic variants in the PRKAG2 gene also have an enlarged heart muscle (cardiomyopathy). Most cases of Wolff-Parkinson-White syndrome occur in people with no apparent family history of the syndrome. These cases are described as sporadic, meaning they are not inherited. In these cases, it is possible that a combination of genetic and environmental causes are responsible for the development of the syndrome. People who have a genetic change (mutation or pathogenic variant) in PRKAG2 causing Wolff-Parkinson-White syndrome have an inherited form of the syndrome. In these cases, the syndrome is inherited in an autosomal dominant manner. This means that only one copy of the PRKAG2 gene is changed for a person to have symptoms of the syndrome. We inherit one copy of each gene from our mother and the other from our father. When a person with Wolff-Parkinson-White syndrome that is caused by a pathogenic variant in PRKAG2 has children, for each child there is a 50% chance to inherit the changed copy of the PRKAG2 gene, meaning he or she will have Wolff-Parkinson-White syndrome; a 50% chance to inherit the working copy of the PRKAG2 gene, meaning he or she will not have Wolff-Parkinson-White syndrome. A doctor may determine if other family members are at risk to have symptoms of Wolff-Parkinson-White syndrome by taking a detailed family history. If no other family members have symptoms of the syndrome, it is most likely that the syndrome is sporadic and is not caused by a pathogenic variant in PRKAG2.

People with your genetic profile are likely to not have genetic predisposition for Wolff Parkinson White syndrome.

According to the latest scientific discoveries, there is no documented genetic predisposition to Wolff Parkinson White syndrome in your results. Nevertheless, we recommend monitoring your cardiovascular health in accordance with your country's health recommendations and to check this finding again as we await the release of the new database from Clinvar.

SCIENTIFIC DETAILS

Gene	rsID	Genotype	Scientific Details
SLC26A4 SLC26A4-AS1	rs111033205	GG	
PRKAG2	rs121908987	CC	



dante labs

DANTE LABS™ TEST RESULTS

KIT ID: TPD16382842155959

CATECHOLAMINERGIC POLYMORPHIC VENTRICULAR TACHYCARDIA

RESULTS



Catecholaminergic polymorphic ventricular tachycardia (CPVT) is characterized by episodic syncope occurring during exercise or acute emotion in individuals without structural cardiac abnormalities. The underlying cause of these episodes is the onset of fast ventricular tachycardia (bidirectional or polymorphic). Spontaneous recovery may occur when these arrhythmias self-terminate. In other instances, ventricular tachycardia may degenerate into ventricular fibrillation and cause sudden death if cardiopulmonary resuscitation is not readily available. The mean age of onset of symptoms (usually a syncopal episode) is between age seven and twelve years; onset as late as the fourth decade of life has been reported. If untreated, CPVT is highly lethal, as approximately 30% of affected individuals experience at least one cardiac arrest and up to 80% one or more syncopal spells. Sudden death may be the first manifestation of the disease. Autosomal dominant CPVT: CALM1- and RYR2-related CPVT are inherited in an autosomal dominant manner. Each child of an individual with autosomal dominant CPVT has a 50% chance of inheriting the pathogenic variant. Autosomal recessive CPVT: CASQ2- and TRDN-related CPVT are inherited in an autosomal recessive manner. The parents of an affected child are obligated heterozygotes (i.e., carriers of one pathogenic variant). Minor abnormalities (rare and benign arrhythmias) have been reported in heterozygotes in anecdotal cases. At conception, each sib of an affected individual has a 25% chance of being affected, a 50% chance of being heterozygous, and a 25% chance of being unaffected and not a heterozygote. Once the CPVT-related pathogenic variant(s) have been identified in an affected family member, prenatal testing for a pregnancy at increased risk and preimplantation genetic diagnosis are possible options.

People with your genetic profile are likely to not have genetic predisposition for Catecholaminergic Polymorphic Ventricular Tachycardia.

According to the latest scientific discoveries, there is no documented genetic predisposition to Catecholaminergic Polymorphic Ventricular Tachycardia in your results. Nevertheless, we recommend monitoring your cardiovascular health in accordance with your country's health recommendations and to check this finding again as we await the release of the new database from Clinvar.

SCIENTIFIC DETAILS

Gene	rsID	Genotype	Scientific Details
RYR2	rs794728708	GG	✓
RYR2	rs1401116572	GG	✓
RYR2	rs190140598	CC	✓
RYR2	rs121918602	TT	✓
RYR2	rs121918597	CC	✓
RYR2	rs794728777	GG	✓
TRDN	rs397515458	GG	✓



GENERALIZED JOINT LAXITY

RESULTS



Generalized joint laxity is characterized by increased length and elasticity of normal joint restraints, resulting in a greater degree of translation of the articular surfaces. This is detectable as an increased range of motion and increased distractibility. This hyperlaxity can be congenital and acquired. Congenital hyperlaxity is usually caused by connective tissue disorders, such as Ehlers-Danlos syndrome, Marfan syndrome, osteogenesis imperfecta, and benign hypermobility syndrome. However, it is not necessarily related to a pathological condition. The prevalence of non-pathological hyperlaxity in the general population is between 5 and 15%. It becomes less common as individuals age and is slightly more prevalent in females than in males. Acquired joint hyperlaxity is commonly observed in athletes (swimmers, gymnasts, pitchers, etc.). In this specific population, repetitive microtrauma or repetitive use during training and competitions result in stretching of the normal capsuloligamentous restraints. Male and female athletes are equally affected. Generalized joint laxity does not require any treatment. Hyperlaxity must be distinguished from instability. Shoulder laxity is the physiological presence of asymptomatic translation of the shoulder joint. There is a wide spectrum of asymptomatic laxity in the anterior, posterior and inferior planes. Shoulder instability, on the other hand, is a pathological condition, characterized by the presence of symptoms in conjunction with abnormal laxity, which is indicative of deficient static and dynamic glenohumeral stabilizers. Several studies suggest that individuals with generalized joint laxity are at risk of musculoskeletal injuries. A clear relationship has been demonstrated between generalized joint laxity and both knee and ankle injuries. Shoulder instability occurs when the normal stabilizing mechanisms are disrupted. Patients with anterior traumatic shoulder instability without hyperlaxity can experience recurrent dislocations or subluxations due to a structural injury of the capsulolabral complex or secondary glenoid or humeral head bone loss. By contrast, patients affected by shoulder instability with hyperlaxity are more likely to experience recurrent subluxations than frank dislocations. They can develop structural lesions of the capsulolabral complex, but do not usually show any secondary osseous lesions.

People with your genetic profile are likely to not have genetic predisposition for Generalized joint laxity.

According to the latest scientific discoveries, there is no documented genetic predisposition to Generalized joint laxity in your results. Nevertheless, we recommend monitoring your cardiovascular health in accordance with your country's health recommendations and to check this finding again as we await the release of the new database from Clinvar.

SCIENTIFIC DETAILS

Gene	rsID	Genotype	Scientific Details
VPS13B	rs386834070	CC	<input checked="" type="checkbox"/>