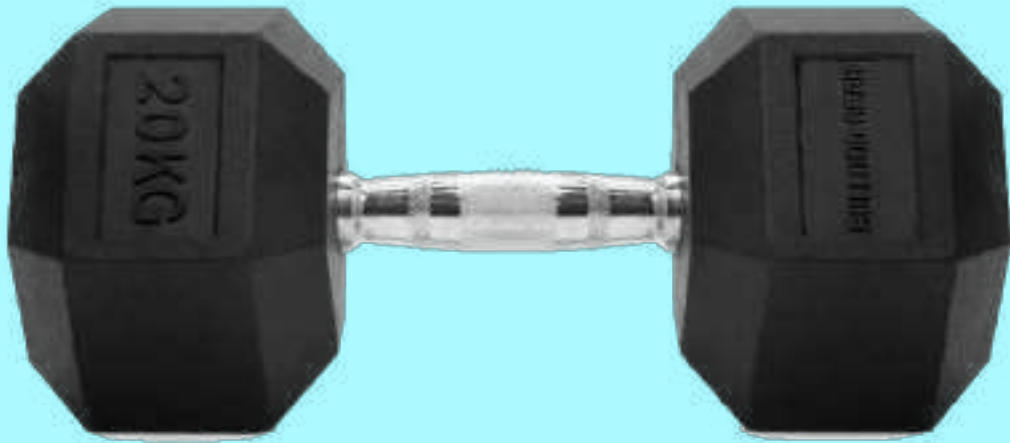


# Precision fitness report

Made for (Client's name)



Hey (Client's name)

# Welcome to your fitness report!

You've taken the first step on your personalised fitness journey.

There is no one size fits all approach that works for everyone, especially when it comes to fitness. The path to wellness is a personalised one!

Your fitness report will reveal how your unique genetic makeup influences your training style, your recovery rate and your predisposition to injury, giving you the tools you need to tailor your training sessions to allow you to get the most out of your workouts..

Within your report, you'll learn which training style your body best responds to, how long your recovery time needs to be, as well as what steps you should be taking to reduce your risk of injury.

Read on to find out more about your genes and their effects on your fitness journey.



# Helpful terms

You'll see some of the same terms come many times throughout your report. Here are some definitions you can refer back to:

## What's a oftene?

A gene is a section of your DNA that contains instructions for building a specific protein. This report will focus on genes affecting your tendency to different exercise styles, your recovery efficiency, and your injury predisposition.

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## What's a oftenotype?

Differences in our genes are what make us unique. The specific version of a gene you carry is called your genotype.

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## What do the letters ACTG mean?

The chemicals that your DNA code is made of can be represented by four letters - A, C, T and G. By looking at these letters, we can see which specific DNA code you carry.

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## What is a phenotype?

Your phenotype is a description of your observable traits. For example, calling someone tall would be a description of their height phenotype. In terms of fitness and exercise, a high injury predisposition is an example of a phenotype that we can address by adjusting our training plan and taking proactive steps.

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## Power

Power is the ability to use maximal force in as little time as possible. It is a vital component of many aspects of sports performance, including acceleration, jumping and throwing.

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## Endurance

Endurance is the ability to perform work or withstand physical stress over long periods of time. Endurance performance relies on many of the body's systems - chiefly the cardiovascular, aerobic and muscular systems.

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## VO<sub>2</sub> max

The maximum or optimum rate at which the heart, lungs, and muscles can effectively use oxygen during exercise, used as a way of measuring aerobic capacity. VO<sub>2</sub>max is more trainable for some people than others.

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## Recovery

Your recovery profile in this report refers to your body's ability to recover between workouts, rather than during them. Ensuring you are fully recovered before your next workout will improve your training response and reduce the risk of injuries. We analyse genes that play a role in two key aspects of recovery: oxidative stress and inflammation levels.

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## Inflammation

Inflammation is the body's natural response to harmful stimuli like pathogens or muscle damage during exercise. It involves the activation of the immune system to repair and strengthen tissues. While acute inflammation is a normal part of muscle adaptation, maintaining balance through rest, proper nutrition, and listening to your body is crucial for overall well-being.

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## Oxidative stress

Intense exercise elevates the production of reactive oxygen species (free radicals) that can harm cellular components. The body's defence system, antioxidants, counters these radicals to prevent oxidative damage. Oxidative stress results from an imbalance between free radical production and the body's ability to neutralise them, potentially causing damage to DNA, proteins, and lipids, linked to ageing and various health issues.

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With those definitions out of the way, let's move into your report!

# Fitness & health

In a diverse world with dynamic demands, fitness is now a universal aspiration, extending beyond physical appearance to holistic well-being—embracing physical, mental, and emotional health.

The path to fitness is deeply personal, influenced by individual goals, preferences, genetics, and health considerations. Fitness is a dynamic equilibrium of exercise, nutrition, and lifestyle choices, evolving with personal growth. It encompasses various disciplines, from strength training to yoga, catering to diverse interests and abilities.

Furthermore, the rise in genomics research focused on fitness has revealed numerous connections between genetic variations and how our bodies respond to various forms of exercise.

Achieving desired fitness goals requires making informed choices that align with an individual's unique genetic profile and insights into these profiles can be leveraged to personalise the exercise program, maximising the benefits derived from training sessions.



Regular exercise sustains heart health, enhances circulation, and lowers cardiovascular disease risk. It aids the immune system and contributes to weight and glucose control, reducing risks like diabetes, hypertension, obesity, and certain cancers.

It also maintains bone density, serves as a stress reliever, curbs cognitive decline, and promotes social interaction for overall well-being.

Achieving fitness goals is not merely a physical triumph; it's a celebration that uplifts self-esteem, confidence, and preserves strength and mobility with age.

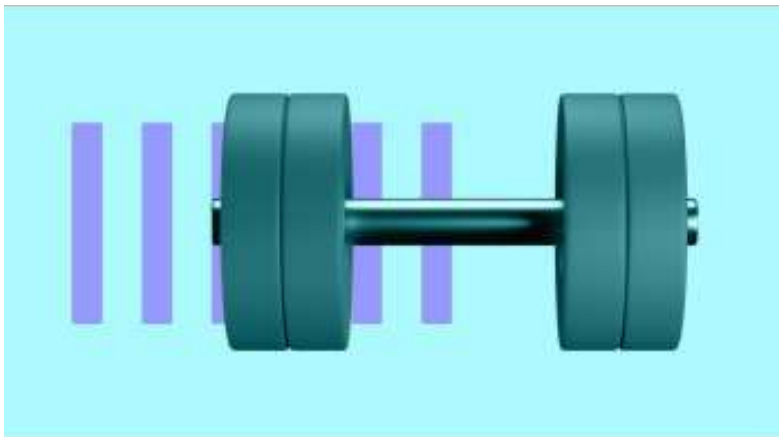
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## Fitness & your DNA

Genetic variations in fitness intricately shape the body's response to inflammation and oxidative stress induced by exercise thereby shaping how efficiently the body recovers from physical activity, predicting our susceptibility to injuries.

Understanding the impact of our genes on fitness will determine whether power or endurance training is more likely to yield substantial benefits. Certain studies indicate up to a 20-fold performance improvement in genetically matched training compared to unmatched training.

These genetic factors also play a pivotal role in determining the body's reaction to an increase in blood pressure and its ability to distribute oxygen to cells during physical activity. Moreover, gene variations influence the body's capacity to release energy through metabolism and dictate the speed at which it can mobilise collagen and proteins to facilitate the regeneration of new tissues, blood vessels, and muscle fibres.



# Your Traininoft Intensity Response

Everyone's fitness benefits from both power and endurance training. However, some people are genetically predisposed to responding to one better than the other. Understanding your power/endurance response allows you to leverage your genetic makeup for more personalised training.



**You have a balanced power and endurance training profile.**

## What is it?

Understanding your power/endurance profile allows you to match your training to your genetics. Evidence shows that following a genetically matched training plan can achieve three-fold improvements in results compared to genetically mismatched training!

## How to improve

We recommend using this result to tweak and influence how you build the type of workouts for your goal - not to change your goal altogether. You might choose to prioritise a certain type of exercise over another, based on where you can achieve the most bang for your buck!

## Your Traininoft Intensity Genes

You have a balanced power and endurance training profile.

*For full genetic details contact us.*



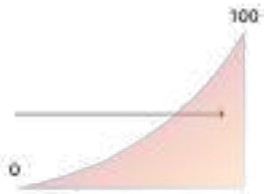
We've tested the most researched genes available in relation to exercise response to help you prioritise your training and maximise your response.

## Advice for you

Here's some recommended lifestyle tips and practices based on your result



Take advantage of your mixed power and endurance result by including both low intensity and high intensity exercise in your training.



Aim to keep your training in the context of your goal - if you're a runner for example, include both short sprints and long distance work.



Use your result to guide how you spend your training time - with your genotype you should aim to include an even mix of power and endurance activities.

# Your Aerobic Trainability

VO2 max is a measure of the maximum rate at which your body can effectively use oxygen during exercise. It's a popular measure of progress in endurance athletes, and genetic variants can influence our ability to improve it

You have a very high VO2 max trainability



## What is it?

VO2max means maximum volume of oxygen and it is one measure of aerobic capacity. It depends on our lungs, circulatory system and muscles to intake, transport and utilise oxygen as efficiently as possible. You can accurately measure your VO2max in a sport science lab, or use a simple HR equation to estimate it. The highest ever recorded VO2max was performed by a cyclist called Oskar Svendsen, at 97.5ml/kg/min!

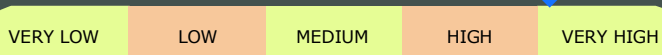
## How to improve

VO2max is defined as the maximum amount of oxygen that our bodies can utilise during exercise, and so to improve it we must work in this zone. That means performing longer "aerobic" intervals of 2-6 minutes in duration, where the breathing rate is reaching its maximum level. Exercises that are weight-bearing (such as running) and/or involve the full body (such as rowing) tend to push our VO2max the most.

## Your Aerobic Trainability Genes

You have a very high VO2 max trainability

*For full genetic details contact us.*



The genes we've analysed here play a role in your response to aerobic training: their functions relate to the production of mitochondria, blood vessel growth and the use of oxygen during exercise.

## Advice for you

Here's some recommended lifestyle tips and practices based on your result



Take advantage of your rapid response to aerobic training by including aerobic work to develop your fitness.



Although VO2 Max is an important metric, it is not the only one that matters for endurance performance, so don't place undue emphasis on this alone.



You can do a VO2 Max test in a local sport science lab, or use a simple HR equation to estimate your current VO2 Max.

# Your Recovery Efficiency

Recovery is one of the most important aspects of any training plan. If you don't allow for proper rest between training sessions, you could compromise future workouts

**You have a fast recovery profile**



## What is it?

Allowing the correct amount of recovery time between workouts is incredibly important. Insufficient recovery could mean that you are unable to perform in your next workout, and could also compromise the gains you make from your previous workout. Recovery relates to how quickly our bodies can counter the oxidative and inflammatory stresses caused by exercise

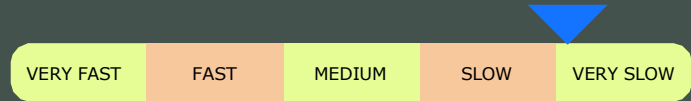
## How to improve

There are a number of ways to aid recovery. Antioxidants and Omega-3 fatty acids in your daily diet can help your body deal with free radicals and inflammation respectively. Sleep is also a large factor: the body needs to synthesise proteins faster than it breaks them down to build up muscles and recovery, and sleep provides the opportunity to do this effectively

## Your Recovery Genes

You have a fast recovery profile

*For full genetic details contact us.*



The genes we've analysed here play a role in your levels of metabolic stress after exercise. These functions relate to elements of oxidative stress and inflammation levels

## Advice for you

Here's some recommended lifestyle tips and practices based on your result



Consume Omega-3 in your diet to support your body's anti-inflammatory response.



Eat a variety of colourful fruit and vegetables to support your natural antioxidant systems.



Your fast recovery profile allows for more frequent training, with less than 48 hours rest needed between hard workouts.

# Your Injury Predisposition

Everyone is susceptible to injuries when training, however some of us have a higher genetic predisposition to injury than others. People with a higher injury risk should include injury prevention sessions in their training plan

You have a medium injury predisposition



## What is it?

Injuries are a normal and commonplace occurrence in all sports and exercise, and sometimes they are unavoidable. However, often injuries are a result of overuse or a body's varying ability to recover and repair following a workout. Understanding this allows us to take pre-emptive action to reduce this risk as much as possible

## How to improve

"Prehabilitative" exercises for the most at-risk areas, such as achilles tendons, can massively reduce our risk of injury. Loading the tendon in a controlled way on a regular basis will strengthen it without the risk of further damage. Improving inflammatory response, for example by including foods rich in Omega-3 fatty acids, can also help reduce injury risk.

## Your Injury Predisposition Genes

You have a medium injury predisposition

For full genetic details contact us.



This group of genes have been selected for their role in predisposition to the most common exercise-related soft tissue injuries

## Advice for you

Here's some recommended lifestyle tips and practices based on your result



For your genotype we recommend adding these achilles tendon strengthening exercises into your routine a couple of times per week; free standing calf raises, seated calf raises, eccentric loading and plyometrics.



To strengthen your patella tendon - Include bodyweight squats, reverse lunges, eccentric single leg squats and leg extensions in your regular exercise routine.



To strengthen your shoulders and rotator cuff - Include cable external rotations, seated rows and band pull-aparts. For your genotype we advise adding a selection of these to your exercise routine a few times each week.