



# YOUR GENOTYPE REPORT

Patient Name:	Tim Harris
Date of Birth:	-
Sample Number:	999bedb29a806ce4
Date of Test:	2016-04-23



**DNAFit**<sup>®</sup>  
LITE+ FITNESS



## WELCOME TO YOUR PERSONAL DNAFit LITE+ REPORT!

It gives us great pleasure to enclose your unique DNA results. Our laboratory has tested your swabs for your response to a selection of key genes that are associated with health and fitness. Your individual results are presented for you in this report, along with a basic grounding in genetic science and the role genetics can play for our personal wellbeing, as well as our athletic potential.

The recent explosion in genetic science has revealed new connections between genes and exercise trainability. To fulfill your fitness or sporting objectives, it can therefore be extremely important to make the appropriate choices to best match your unique genetic make-up. By helping you understand how your genetic profile affects you, DNAFit provides unparalleled insight and knowledge to help you optimize your physical health and fitness.

## WHAT DOES MY DNAFit LITE+ REPORT TELL ME?

From your DNA results, we reveal a unique scientific deep-dive in to the following key areas -



### Endurance / Power profile

Reveal your body's response to key genes associated power or endurance potential. Understand how best to train for your body, whatever your personal goal may be.



### Post-Exercise Recovery

Everybody has a different recovery ability - understand what your genes say about your natural recovery speed, and how to plan your exercise regime accordingly



### Recovery Nutrition Needs

Get to know your body's genetic need for certain vitamins and micronutrients, and how this can help you manage your recovery strategy after hard exercise



### Injury risk

Some people are more genetically prone to injury than others, we help you identify where your genes put you on the injury risk scale.



## LEGAL DISCLAIMER

This report is based on your unique DNA results obtained by testing your swabs for your response to a selection of key genes that are associated with health and fitness.

Any assertions or recommendations in the report as to an exercise regime or diet, whether specific or general, are based on the following assumptions:

1. that you are in a good state of health and do not have any medical problems that you are aware of;
2. that you have not had any recurring illness in the past 12 months;
3. that no medical practitioner has ever advised you not to exercise;
4. that you are not on any prescribed medication that may affect your ability to exercise safely or your diet;
5. that you do not have any food allergies; and
6. that there is no other reason why you should not follow the assertions or recommendations in the report.

If you have any concerns at any time about whether or not these assumptions are correct in your particular circumstances, before acting, or not acting, on any of the assertions or recommendations, you must consult a medical practitioner.

You are at all times responsible for any actions you take, or do not take, as consequence of the assertions or recommendation in the report, and you will hold DNA Fit Limited, its officers, employees and representatives, harmless against all losses, costs and expenses in this regard, subject to what is set out below.

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## UNDERSTANDING GENETICS

Before reading your full report, please take a moment to read this background information to help you better understand your results and to guide you on how best to make use of what you learn from your DNAFit results.

The DNAFit Lite report is designed for people of any fitness level. Whether you are an absolute beginner just wanting to train the best way for your body, a personal trainer keen to offer the very best service to your clients, or a professional athlete seeking that extra edge, our report can help you.

### WHAT ARE GENES?

A gene is a segment of the DNA (Deoxyribonucleic Acid) molecule that contains the instructions for how, when and where your body makes each of the many thousands of proteins required for life. Each gene is comprised of thousands of combinations of four letters that make up your genetic code: A, T, C, and G. Each gene's code combines these "letters" in various ways, spelling out the "words" that specify which amino acid is needed at every step in the process of making the proteins required for your body to develop and function. Increasingly, your genes can also tell you whether you are predisposed to specific health risks.

### WHAT ARE GENE VARIATIONS?

With the exception of identical twins, all people have small differences in the information that their DNA contains and it's these differences that make each of us unique. Gene variations are slight changes in the genetic code that are present in at least one percent of the population.

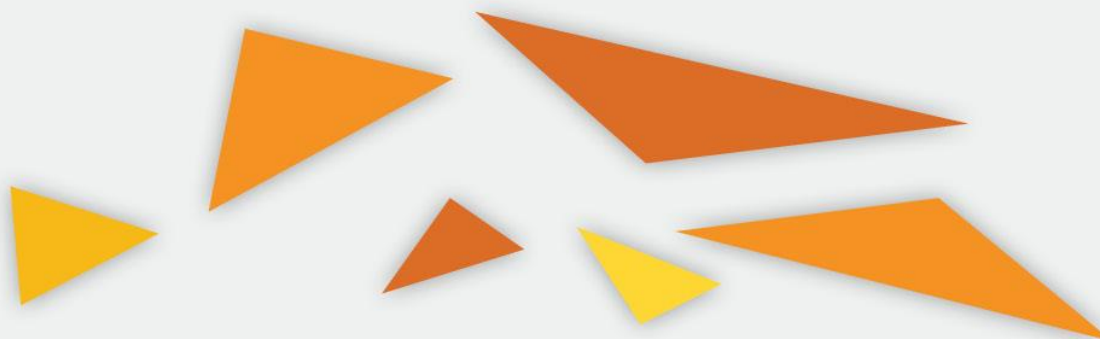
For example - one genetic "letter" (A, T, C, or G) may be replaced by another. These variations can lead to different processes in the body, just as altering one letter in a word can completely change its meaning. When the variation affects only one genetic letter, as in the goat/coat example above, it is called a "single nucleotide polymorphism" (or SNP, pronounced "snip").

### ARE GENE VARIATIONS "BAD"?

For a given population, one genetic code for a gene may be found more frequently than other genetic codes for that same gene. The genetic codes for those genes that appear less frequently are referred to as "variants". Variations should not be thought of as "good" or "bad," rather genetic variations are simply the differences in the forms of the genes present in our bodies. The key is to know which form of the gene you carry, so that you can make the right exercise, dietary and lifestyle choices to reduce your health risks.

### WHAT IS NUTRIGENETICS?

Nutrigenetics is concerned with the effects of our individual genetic variations in response to our diet, exercise and lifestyle, all of which can cause the genes to be "expressed" in a positive or negative way. Nutrigenetics testing enables us to identify where we are on our journey towards achieving our individual, optimal health potential.





## YOUR PERSONAL GENETIC REPORT

The following pages outline your genetic results. By identifying and analysing your unique pattern of genetic characteristics, it becomes possible to adjust your training, diet and lifestyle to match your individual needs for success in exercise and sport.

**Remember:**

**Your genes cannot change, but your lifestyle can.**

This is why we consider the two together; by identifying genetic strengths and weaknesses, we can make appropriate exercise, dietary and lifestyle recommendations.

## YOUR DNA OVERVIEW



Make the most of your genetic tendency for endurance activity by placing a priority on endurance exercise in your



Your genetic variation may result in slower free radical clearance. You have variations in genes related to inflammation & recovery.



Your genetic results indicate a raised requirement for dietary antioxidants and increased amounts of omega 3 fatty acids.



Your genetic results indicate that you have an overall higher than average risk of a sports related soft tissue injury.



## POWER / ENDURANCE PROFILE

Endurance training is defined as lower intensity activity, performed for a longer period time. Power training is identified as high intensity exercise performed quickly, but over shorter time periods. We have collated your body's response to key genes associated with either power or endurance training to create the below summary of where your genetics lie on the spectrum.

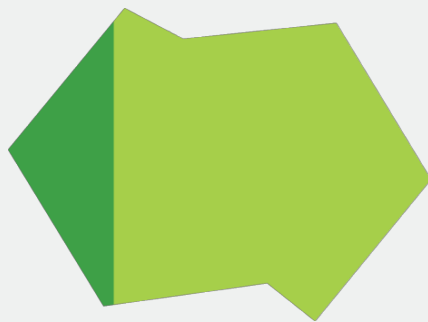
### Example Endurance Activities

 Long-distance running
  Mountain climbing
  Road cycling

### Example Power Activities

 Sprinting
  Power lifting
  Track cycling

## YOUR PERSONAL POWER / ENDURANCE RESPONSE



**27.3 %**  **Power Response**

**72.7 %**  **Endurance Response**

The above graph shows your percentage of genetic endurance and/or power results. It is important to note that this result should not change your sporting or fitness goal, rather it should help you understand how best for you to reach that goal, by taking advantage of your genetic pre-disposition.

Your assessment has determined that your genetic profile falls more in the zone of endurance activities, based on variations in your genes.

Make the most of your genetic tendency for endurance activity by placing a priority on endurance exercise in your training program



## RECOVERY

When exercising, some people are lucky enough to recover very quickly - 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 hard training bouts. Research has shown that certain genetic variations infer a delayed recovery from hard exercise training; those with these markers should take extra care with their training plan and nutrition strategy.

### YOUR POST-EXERCISE RECOVERY PROFILE



**VERY SLOW                      SLOW                      MEDIUM                      FAST                      VERY FAST**

Your assessment has determined that you have variations in gene(s) important in free radical removal [SOD2]. In order to support your genetic profile, it is recommended that you consume adequate amounts of antioxidants in your daily diet.

Your assessment indicates variations in gene(s) related to immune support and recovery [IL6, IL6R, CRP]. In order to complement this genetic component, it is recommended that you include omega-3 fatty acids in your daily diet.

### Your Post-Exercise Nutrition Needs

Every time we push our bodies through exercise, we can cause inflammation and oxidative stress in our cells. It is important to refuel and repair your muscles so your body is ready for the next event or training session. If you neglect post-exercise nutritional support and recovery time, you risk running low on energy during your next exercise session and harming your overall training plan.

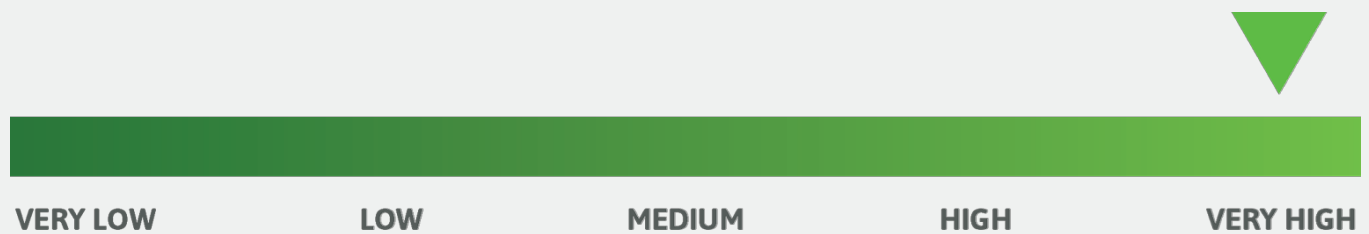
Recommended Micronutrient Doses	
Nutrient	Your Recommended Daily Intake
Vitamin A	5,000 IU / 1500 µg
Beta Carotene	7 mg
Vitamin C	250 mg
Vitamin E	200 IU / 180 mg
Omega-3	2 g
Alpha Lipoic Acid	150 mg



## INJURY RISK

Though of course injury is always a default risk when undertaking any form of exercise, some people do appear to be more predisposed to injury than others, and some of this is based on genetics. Scientific evidence has shown that certain genetic variations can affect injury risk; we have taken the results from your DNA test and collated them to provide you with an overall injury risk score. Those with a higher genetic injury risk may need to adjust their training plan to include more injury prevention sessions than the average person.

### Your Personal Injury Risk



Your genetic results indicate that you have an overall higher than average risk of a sports related soft tissue injury. This should be taken into consideration when planning training schedules and the information should be communicated to your personal trainer.

Your Fitness assessment indicates variations in gene(s) related to general inflammation – should you suffer from a soft tissue injury your levels of inflammation could have an impact on recovery. You are advised to inform your therapist about this possibility





## WHAT NEXT?

We hope that you have now gained a good understanding of your genetic potential, how to help manage injury and how your body recovers after hard exercise, and that this knowledge will help you take your fitness goals to the next level.

**This is, however, only the very tip of the DNA iceberg!**

Upgrade today for a special discounted price to truly deep-dive in to your genetic makeup and how it can affect your training. No new test required, just a quick phone call or email is all it takes to delve deep in to your unique genetic code...

For **only £50**, you can now purchase our full **premium** product report, including:

- Extensive in-depth report on each of the 21 key genes we test for, with your individual allele response and what this means for you and your fitness.
- Compare and benchmark your DNA against that of an Olympic athlete or professional sportsperson. See how your genes size up against the sporting elite!
- Full DNAFit® Genotype Support Guide
- Easy to use and informative breakdown of how to use your report to improve your training.
- Bespoke training recommendations based on **your** DNA, tailored to the goal of your choice - be it weight loss, muscle growth, running or cycling.

**To upgrade, call us now**

on +44 (0) 845 463 4653 or email to [info@dnafit.com](mailto:info@dnafit.com).



**DNAFit**<sup>®</sup>  
ACHIEVE YOUR GENETIC POTENTIAL



## GLOSSARY

**Aerobic:** Anything relating to, involving, or requiring oxygen. E.g. "Aerobic exercise"

**Allele:** An allele is an alternative form of a gene (one member of a pair) that is located at a specific position on a specific DNA chromosome. E.g. "You have the ID allele of the ACE gene."

**Anti-Oxidant:** A substance, such as vitamin E, vitamin C, or beta-carotene, thought to protect body cells from the damaging effects of oxidation.

**Cruciferous Vegetables:** Relating to or denoting plants of the cabbage family.

**Endurance:** A sport or activity that requires the ability to perform for long periods of time at low intensities, such as marathon running and cross-country skiing.

**Free Radical:** An atom or group of atoms that has at least one unpaired electron and is therefore unstable and highly reactive. In human tissue, free radicals can damage cells and cause health problems

**Folate:** A salt or ester of folic acid.

**Folic Acid:** Any of a group of vitamins of the B complex

**Genotype:** The genetic constitution of an individual organism.

**HCA (Heterocyclic Amines) and PAH (polycyclic aromatic hydrocarbons):** Possibly harmful chemicals formed when meat is cooked at high temperatures.

**Micronutrient:** A substance such as a vitamin or mineral, that is essential in small amounts for our body's health and growth.

**Monounsaturated Fatty Acids:** A type of fat that only has one bond per molecule, they are mostly liquid at room temperature but can turn solid when chilled. E.g. Olive Oil

**Nutrigenetics:** A branch of nutritional science, which aims to identify nutritional recommendations for individuals based on their DNA.

**Osteoporosis:** A medical condition in which the bones become brittle and fragile from loss of tissue, typically as a result of hormonal changes, or deficiency of calcium or vitamin D.

**Polyunsaturated Fatty Acids:** A type of fat that has more than one bond per molecule, they are typically liquid both at room temperature and when chilled.

**Power:** A sport or activity that requires the ability to perform at a high intensity for short periods of time, such as sprinting and power lifting.

**Tendinopathy:** A chronic injury to a tendon, often also referred to as tendonitis.

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