Introduction

Since starting my personal training career in 2013 I’ve gained incredible perspective about what personal training offers.

Coming from an academic background, I am interested in understanding the science behind fitness industry trends. I remain intrigued by DNA testing and how it facilitates the creation of personalised health and fitness plans.

I do not believe there is a “one size fits all” approach. Upon starting training you may see similar results as your peers, but before too long your approach will require tweaks to sustain the impact of fitness, nutrition and lifestyle changes.

The ability to test a person's DNA is a huge leap forward for society. DNA testing was once only available to the elite, but genefit’s DNA testing is now highly accessible and affordable. The investment provides you with personal and accurate information to help you hit new goals throughout your lifetime.

Ryan J. Collier
Deoxyribonucleic acid (DNA) is contained within the nucleus of every cell, compacted into groups called chromosomes. An entire set of DNA for any particular organism is called a genome.

When you were conceived, you received half of your mother’s and half of your father’s DNA. This determines your current DNA: it is the blueprint for the way your body is today.

We know that humans can only give birth to other humans. This is due to the pairs of chromosomes within each human body. DNA is made up of four chemical building blocks called nucleotides, which come in many different orders and lead to thousands of different protein structures being created. These protein structures determine things such as the percentage of power and endurance fibres within the muscle.

The Human Genome Project began in 1990 with the goal of mapping the myriad possibilities of genes in humans. In theory, there would be millions of genes, and by understanding them we could unlock the mystery of disease. Unfortunately, research reveals we have the same number of genes as a roundworm: a parasite clearly a lot less complex than humans! Even the smallest difference in the DNA causes a huge physical change in every living organism. For instance, do you know you share 98% of your genes with a chimpanzee and 50% with a banana?
There are two key factors influencing the person you are today: nature (DNA) and nurture (environment and lifestyle). Research shows your environment has a huge effect on your genes: this is called **epigenetics**. From birth, nature had a genetic plan for you but your environment, and how it informs your nutrition and exercise routine, can alter how your genes express themselves.

For example, if your body’s **recovery** is slow but you are training over five times a week with minimal rest, or engaging in high intensity interval training, you may be adding unwanted stress to the body, stress raises cortisol levels and leads to increases in fat around the abdomen. The solution is not to train more, but to **train smarter** (and possibly less!).

Another example of **epigenetics** can be seen in the **warrior vs worrier** status. While some people can feel very mentally and physically stressed (their environment), this doesn’t mean the DNA test would show them as a ‘worrier’. Instead it will determine how a person will physiologically react to those stressors, potentially allowing some protection. A warrior type will release less cortisol (stress hormone) for a given stressful situation than a worrier type person. Warriors are also gifted with a naturally higher pain threshold which could be beneficial, or depending on genetic injury risk, detrimental.

By looking into your **chromosomes**, genefit begins to understand your body type and can create your optimal training and supplementation plan.
A RECENT STUDY REPORTED AN INCREASE OF 33% IN RESULTS FOR THOSE WHO HAD A DNA TEST!

DNA testing is the future of all health and fitness goals. Unearthing the building blocks of your body’s makeup makes it possible for experts to develop training and nutrition plans specifically for you.

By understanding the base coding of your DNA, genefit helps you work with your body to gain the most from training, supplement and lifestyle choices. Do you want to:

•  *Reduce body fat?*
•  *Build muscle?*
•  *Increase your fitness?*
•  *Improve your health?*

No matter what your goal is, discovering your base coding will direct you down your specific path. Determining whether you are more like Paula Radcliffe or Usain Bolt will help you train in a way that works with your body, not against it. Smash through goals and gain results knowing you are backed by science.
Old testing methods undertaken by specialists face-to-face often require a large investment of time and money. We test several different areas impacting your unique training plan at an affordable price.

**STRENGTH AND ENDURANCE**
Determine the right duration and intensity during cardio or weight training to achieve maximal results.

**RECOVERY**
Ensure you get enough rest in between and during sessions so exercise doesn’t become detrimental to your goals.

**INJURY RISK**
Complete the right kind of warm-ups and injury prevention exercises if you have a higher risk of soft tissue injury.

**RESPONSE TO B12**
Learn whether you have a genetic predisposition to deficiency and whether supplementation will aid your energy, pain sensitivity and memory.

**RESPONSE TO MAGNESIUM**
Identify if you are more likely to be deficient and how this can have an affect on over 300 processes in the body.

**RESPONSE TO VITAMIN D**
Find out if you have a genetic predisposition to deficiency and if this is affecting your mood, immune system, cell growth and neuromuscular function.
What will the test UNLOCK?

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<thead>
<tr>
<th>TRAINING</th>
<th>SUPPLEMENTATION</th>
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<tr>
<td>Endurance</td>
<td>Vitamin B12</td>
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<tr>
<td>Power</td>
<td>Bone mineral density and calcium intake</td>
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<tr>
<td>VO₂ max</td>
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<td>Lean body mass</td>
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<td>Effect of resistance training</td>
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<td>Injury risk</td>
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<td>Exercise and its effect on weight</td>
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<td>Recovery</td>
<td>Vitamin B9 (folate)</td>
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<td>Warrior versus worrier</td>
<td>Vitamin B6</td>
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<td>Anaerobic threshold</td>
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Warrior versus worrier
What are the **BENEFITS**?

**TONY’S GENETIC PROFILE**
- *power athlete*
- *slow recovery*
- *warrior status*

**GEORGE’S GENETIC PROFILE**
- *endurance athlete*
- *fast recovery*
- *worrier status*

Tony and George both want to gain muscle. Both will train weights to gain muscle mass, but how they use these weights will be completely different.

**Tony** will lift mostly in the power range – heavier but fewer reps – while **George’s** lifting will be endurance based with more reps and a lighter load.

We know certain training releases growth hormones, but to ensure their optimal release **Tony** will rest longer than **George** due to his slow recovery.

Recognising **George’s** worrier status is also important, as we know stress will slow or stop the muscle growth. This means **George** will have to be aware of this stress and manage it more effectively than **Tony**.
Is it for **ME**?

Have you:

- **Attended the gym regularly with little or no success?**
- **Constantly altered your training to no effect?**
- **Been overwhelmed by the choice of supplementation now available?**
- **Ever wondered which of the many ‘superfoods’ would be most beneficial and cost effective for you?**

This testing will benefit anyone with a health and fitness goal. Testing is not designed to find genetic disease, its purpose is to improve your training and supplementation. Your DNA will never change so you can use these results for the rest of your life.
What is needed?

How do we find out all this information and unlock your genetic potential? It's simple!

- No necessary visits anywhere
- No blood samples
- Use a home test kit
- Send your mouth swab
- Wait for your results

You wouldn't build a skyscraper without the blueprint, so don't continue with your health and fitness goals without a DNA test. Unlock your full potential with genefit now!

FOR MORE INFORMATION OR TO ORDER YOUR EASY HOME TEST KIT:

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THE
NO-NONSENSE
Guide
to
DNA TESTING