



dnadiet

optimal diet for life

Welcome

Report Sample

to your dna diet report

Date of Birth: **08 Jan 1990**

Date Reported: **20 Nov 2018 09:53**

Sample Number: **DNA000000ZA**

Referring Practitioner: **Doctor X**

Background to the analysis

DNAnalysis received your swab sample and used special molecular techniques to amplify your DNA for further analysis. This process, called the Polymerase Chain Reaction (PCR), copies the DNA of your genes many times over, so that we can generate sufficient quantities to analyse your genetic material. We then identify unique DNA sequences in some of your genes. Certain changes (polymorphisms) in these genes have been studied in detail, and evidence has emerged that correlates these polymorphisms with an individual's weight management and response to diet and exercise intervention. Having identified the presence or absence of these polymorphisms, we are able, qualitatively, to assess particular areas of intervention for improved weight management related to the specific genes. To make a holistic assessment of weight management, environmental factors (diet and lifestyle) and previous medical and weight history need to be considered in conjunction with the accompanying genetic profile.

We therefore strongly recommend that these results be discussed with an accredited DNAnalysis health professional.

In the following pages you will find a table of your genetic results, and an explanation of these results and associated impacts including diet and lifestyle recommendations.

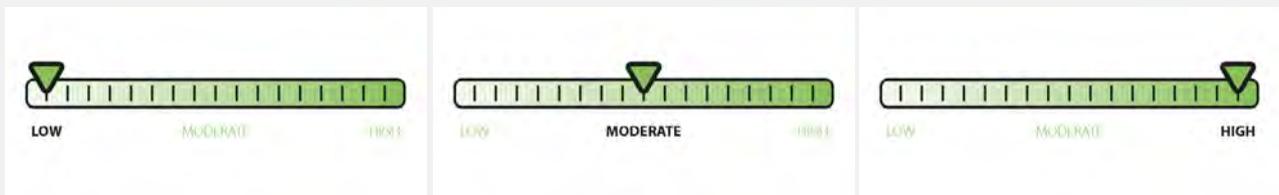
How to read this report

This genetic report contains two primary pieces of information:

Based on our analysis of your genes we have calculated your score to determine which of three possible diet plans (low fat, low carb and Mediterranean) is likely to be the most effective for you.

Once you have established the optimal diet type, there is scope for further personalisation by considering the genetic contribution of relevant diet and lifestyle factors.

We consider the following diet and lifestyle factors that contribute toward weight management: obesity risk, eating behaviour (snacking) and taste preferences, responsiveness to saturated fat and poly-unsaturated fat, and carbohydrate intake, as well as amount and intensity of the importance of mono-unsaturated fat intake and exercise. The significance of each of these is illustrated graphically, as below:



In crafting the ideal diet type take particular note of the lifestyle categories showing moderate or high priority.

Summary of your personalised weight management plan

Your diet plan

Based on our analysis of your genes, we recommend a **LOW CARBOHYDRATE** diet as the best possible plan for you to manage your weight.

Your exercise plan

A **MODERATE to HIGH INTENSITY** exercise program that includes **20 MET HOURS** a week

Genetic results

Area of Activity	Gene Name	Genetic Variation	Your Result	Gene Impact
Absorption and metabolism	FABP2	Ala54Thr	GG	
Metabolism	PPARG	Pro12Ala	CC	
	ADIPOQ	-11391 G>A	AG	
	ADRB2	Arg16Gly	GG	
	APOA5	1131 T>C	TT	
Energy homeostasis	UCP1	-3826 A>G	GA	
	UCP2	-866 G>A	GA	
	UCP3	55 C>T	TC	
Carbohydrate Responsiveness	ADRB2	Gln27Glu	GG	
	TAS1R2	Ile191Val	GG	
	DRD2	rs1800497	TT	
	SLC2A2	Thr110Ile	TC	
Fat metabolism, obesity and satiety	APOA2	265 T>C	CT	
Regulation of metabolism and feeding behaviour	MC4R	V103I	TT	
Regulation of energy intake	FTO	rs9939609	AT	
	TCF7L2	rs7903146	CC	
Exercise responsiveness	ADBR3	Trp64Arg	TT	
Circadian rhythms	CLOCK	3111 T>C	TT	
Fat storage	PLIN	11482 G>A	GA	
Inflammation	TNFA	-308 G>A	GG	



No impact:



Low impact



Moderate impact



High impact

Weight management priorities

The below diet and lifestyle variables have been analysed for the role they play in your weight management. Based on your recommended diet plan according to your genetic variation, and the contribution of the weight management variables below, you will be able to customize a weight loss programme best suited to your needs. The graphs below give an indication of the significance of each diet and lifestyle variable. From this you will be able to see which factors need the most attention.

Obesity Risk

Obesity risk is largely genetically determined. It gives some indication of an individual's responsiveness to a calorie restricted diet, as well as one's ability to manage weight. Based on your gene results there should be a relatively low barrier to you losing weight, and you should be able to maintain your weight loss when following the right diet plan combined with adequate exercise.

Carbohydrate

Certain gene variants are associated with weight loss resistance when there is a high dietary intake of carbohydrates. According to your gene results, you scored in the moderate priority range for carbohydrate responsiveness. By managing the amount of carbohydrate in your diet, you will improve your weight loss outcomes and prevent weight regain.

Saturated Fat

Certain gene variations have been associated with increased obesity risk and slower weight loss outcomes when there is a high saturated fat intake. According to your gene results, moderating saturated fat intake is a low/moderate priority for you, meaning that a very high intake of saturated fat may possibly lead to slower weight loss outcomes.

Mono-unsaturated Fat

Genetic variants in certain genes have been associated with a lower body weight in individuals when more than 13% of their calories come from monounsaturated fats. According to your genetic results this is a moderate priority for you, and increasing intake of mono-unsaturated fat to 13% of total energy intake is recommended for optimal weight management.

Poly-unsaturated Fat

Genetic variants in certain genes have been associated with a lower body weight in individuals when there is a higher intake of poly-unsaturated fats in the diet, with a focus on omega 3 fatty acids.

According to your genetic results this is a low priority for you, and standard guidelines for poly-unsaturated fat intake should be recommended.

Exercise

Exercise is an important part of weight loss, but some individuals require higher exercise intensities and greater time spent exercising to mobilize their fat stores. You require slightly higher amounts of physical activity to help achieve and maintain weight loss. Try aim for a minimum of 20 MET Hours per week

Sweet Tooth

Having a "sweet tooth" can be described as craving, or seeking out, sweet foods. This has been linked to an increased risk for obesity. Certain genes play a role in determining an individual's predisposition to having a sweet tooth.

Your genotype combination influences your ability to taste sweet foods, and may moderately contribute toward you having a "sweet tooth". It is important to try to avoid all high-sugar foods.

Satiety and Snacking

Satiety can be described as the feeling of fullness after a meal. Some individuals have an increased tendency to snack more often and to experience reduced feelings of satiety.

Based on the genes analysed there is no predisposition for either heightened snacking behaviour or diminished feelings of satiety.

Circadian Rhythms

Sleep reduction, changes in ghrelin values, alterations of eating behaviours and evening preference may have a negative effect on weight management. The CLOCK gene plays an important role in regulating an individual's day-night cycle and influences evening preference.

Your genotype is not associated with an evening preference and this is therefore a low priority area for you.