

# SlimGen

PERSONAL REPORT



Prepared for: Jane Doe

# Welcome to Your SlimGen Personal Report

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## SlimGen Personal Report

September 25, 2020

### Congratulations!

You are about to receive insights about your body that, up until now, have never been available. The science of the human body only recently evolved enough to allow scientists to identify and analyze a person's DNA. Your report not only provides you with a road map of your specific genes, but gives direction on how you can potentially optimize your health and well-being with this knowledge.

We spend a lifetime trying to learn more about ourselves, especially how our body works and how our health is affected by our habits and behaviors. Traditionally, we have learned what works and what doesn't through trial and error. But experience alone doesn't always give us the information we need. *Your report will help you to better understand the factors that can affect how your body ticks.*

This report will provide you with results in 4 key areas that can affect the way your body looks and feels. Your report includes an analysis of your genotype for certain key genes that are related to weight management, nutrition and exercise.

## What is Genetic Testing?

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Genetic testing utilizes a physical specimen from the body (saliva, blood, or other tissues) to reveal information about a person's chromosomes or their genes. In addition to identifying key genes, information is evaluated about areas on each gene that may differ between people. These areas are known as single nucleotide polymorphisms (SNPs). We use the term genotype to describe the outcome of your individual genetic tests.

## Which Body Traits Were Analyzed?

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To produce your results we look at genes that are related to four major categories: *Weight Loss Tendency, Macronutrients in the Diet, Micronutrients in the Diet and Response to Exercise*. Some of the results are directly related to weight loss efforts from diet and exercise. Other results are relevant because they can affect how you feel and how your body functions optimally. This can affect your performance and your efforts to manage your body weight.

## How Are Your Results Determined?

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We provide a genetic analysis that indicates which gene combinations you have in each category. You will receive a rating based on our calculated score for each trait in a category. Some categories only have one gene associated with that trait; other categories have several genes associated with that trait. Our calculated score reflects the potential combined influences from one or more genes.

We also provide personalized health tips based on the potential implications of these results. In most cases, the outcomes for a genotype are a response to a specific diet or exercise prescription. For example, many of the results are based on looking at study subjects' response to an exercise program where participants did cardio exercise on only three days per week for a certain amount of time each session. Participants may have differed in their response to this regimen based on their genetics. Some may have had better weight or fat loss results than others. If your results suggest a more unfavorable response, be careful of assuming that this suggests that you cannot lose weight from exercise or from a certain diet. You may simply need a slightly different approach to get more favorable results. In some cases, it is unclear exactly what the ideal approach might be. But we have evaluated your potential genetic response and provided suggestions on how to enhance it based on evidence-based dietary and exercise research recommendations, as well as the experience of our medical team.

Your report uses the best available research on which to base your results. We have established stringent criteria for studies that can be used to help us evaluate the potential impact of your genotype for each gene tested. There are many studies that include genetic analyses, but for a variety of reasons, not all of them are reliable or valid. In determining how to process your genetic analysis, we do not accept just any research that has been performed on a gene. We use the largest and most scientifically valid genome-wide association studies to calculate a score for the different genes or gene combinations. It's important to keep updating the analyses as the science evolves. Your report maintains a continually updated research database, and our analyses are modified as new and better research becomes available. There is still much to learn in the field of genetic analysis. We chose the best available research upon which to base our analysis and recommendations.

## Why Is Your Genotype Important?

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Your genotype reveals the blueprint for your body. The ratings we provide reflect your genotypes for each gene or set of genes. This shows you your potential response, based on your genetic analysis, to different aspects of body weight management (e.g., how you might be affected by different types of diets and regular exercise.) Keep in mind that if your results show the presence of certain genotypes and your result suggest that you will exhibit either an "enhanced" or "below average" response, for example, this does not mean that the outcome associated with that genotype is definitely how your body will or does react.

Your phenotype is the physical manifestation, or expression, of your genotype. But your phenotype may be different than your genotype—not all the genetic variations seen in an analysis are manifested. That's because **how the genes that you have are expressed is largely affected by your lifestyle and other environmental factors**. While your analysis might show that you have an increased or decreased potential for a certain health trait, it does not mean that you will, in fact, express that trait. Your phenotype for the trait may be different than the genotype the analysis shows.






This is very important to keep in mind because there is a tendency to view genotype results as a definitive diagnosis and to assume that you absolutely have certain traits, when this is not what a genetic analysis measures. The analysis only measures your risk for different outcomes, or the likelihood that your phenotype will express what your genotype predicts. Your results only suggest that there is a greater or lesser chance that you may exhibit certain traits or responses. The fields of nutrigenomics and exercise genomics are new, but growing, areas of research. Much still needs to be known to understand about genes and their interactions with each other, and the role in which other influences such as diet, exercise and the environment play in whether you will express a trait associated with a certain genotype.

That said, results from a genetic analysis may provide insights into how your body might perform optimally. If you have a certain genotype for a specific trait, knowing how it might affect you and adjusting your behaviors to maximize this information could make a difference in getting better results from lifestyle changes such as diet and exercise. *We provide personalized suggestions that may help you achieve the best results from your weight management efforts.* Our team considers the results of your genetic analysis, along with an analysis of personal factors that you report which may also influence your body weight, as well as evidence-based guidelines that suggest the most effective strategies for weight management. All of this information combined is used to determine which lifestyle behavioral changes may be most helpful to you.

## What You'll Learn About Your Body

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On the following pages, you will see a summary of your results. You'll learn what your genotypes suggest about your tendency to lose weight and body fat in response to different types of diets and exercise programs. You will also gain insights into your potential status for a variety of micronutrients, as well as the likely health effects you may experience from regular exercise. Your analyzed genotype results are followed by a detailed explanation and success strategy. Our medical team has evaluated your potential response and taken in to account what evidence-based research recommendations on diet and exercise suggest are the optimal approach for effective body weight management to provide you with concrete success strategies. This guidance may give you that extra edge in finding the right plan that helps you maximize the results you get from dieting and exercise. While we can't change our genes, we can change our behaviors to take advantage of what our genes say about our bodies.

- REPORT SUMMARY
-  WEIGHT LOSS
-  FOOD
-  FOOD SENSITIVITY
-  NUTRIENTS
-  EXERCISE

# REPORT SUMMARY



## WEIGHT LOSS

Metabolism	NORMAL	LEPR, CHRNA3, CRY21
Weight Loss Tendency	BELOW AVERAGE	FTO, TCF7L2, MTNR1B, PPARG, BDNF, ABCB11
Weight Regain	NORMAL	FTO, PPARG, BDNF, NEGR1, TMEM18, KTCD15, GNPDA2
Satiety	WELL BELOW AVERAGE	FTO



## FOOD

Protein Utilization	ENHANCED	FTO
Fat Utilization	NORMAL	PPARG, TCF7L2, APOA5, CRY2, MTNR1B, PPM1K
Carb Utilization	LOW	IRS1



## FOOD SENSITIVITY

Sweets Preference	NORMAL	FGF21, SLCA2
Caffeine Metabolism	SLOW	AHR, RP11-10017.3-001, ARID3B, CYP1A1
Bitterness Sensitivity	LIKELY	TAS2R38



## NUTRIENTS

Vitamin A Tendency	BELOW AVERAGE	BCM01
Vitamin B6 Tendency	BELOW AVERAGE	NBPF3
Vitamin B9 – Folate Tendency	LOW	MTHFR
Vitamin B12 Tendency	NORMAL	FUT2
Vitamin C Tendency	NORMAL	SLC23A1
Vitamin D Tendency	LOW	GC, NADSYN1, CYP2R1



## EXERCISE

Fat Loss Response To Cardio	NORMAL	ADRB2, LPL
Fitness Response To Cardio	BELOW AVERAGE	AMPD1, APOE

# REPORT SUMMARY

Body Composition Response To Strength Training	BELOW AVERAGE	NRXN3, GNPDA2, LRRN6C, PRKD1, GPRC5B, SLC39A8, FTO, FLJ35779, MAP2K5, QPCTL-GIPR, NEGR1, LRP1B, MTCH2, MTIF3, RPL27A, EC16B, FAIM2, FANCL, ETV5, TFAP2B
Hdl Response To Cardio	ENHANCED	APOE
Insulin Sensitivity Response To Cardio	NORMAL	LIPC
Glucose Response To Cardio	NORMAL	PPARG

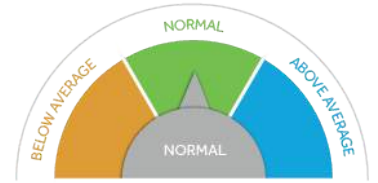


# WEIGHT LOSS

## METABOLISM

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits characteristics that make you likely to have a **NORMAL** RMR and have average responsiveness to diet and exercise in terms of burning fat. You are likely to burn an average number of calories per day outside of physical activity and your resting metabolism may change favorably in response to diet and exercise. That's good news, as RMR accounts for the majority of your calorie burn. You may still want to deliberately expend more energy in your daily life to push your total calorie burn above average and to boost your resting metabolism even further to assist with weight loss.



Your genetic profile indicates you are likely to have a **NORMAL** RMR and to have an average level of metabolic responsiveness to diet and exercise in terms of burning fat

You may burn about the same number of calories at rest as most of your peers and be equally able to raise your resting metabolism

### RELATED GENES / SNPs

**LEPR, CHRNA3, CRY21**

The genes and associated SNPs included in this category have been shown to have significant associations with a person's resting metabolic rate (RMR) and how responsive their metabolism is to diet and exercise in terms of burning fat.

Your metabolism comprises all the chemical reactions that act as your body's engine, turning the food you eat into energy to maintain all the bodily functions you need to stay alive. We measure metabolism in terms of calories burned. RMR is the number of calories you burn when doing nothing more strenuous than sitting and watching your favorite shows.

RMR accounts for about 70% of daily calorie burn in sedentary people. It's influenced by your age, body size and composition, and

### SUCCESS STRATEGIES

Metabolism is not just one "thing," but the combination of many processes that your body performs to use the food you eat and the fuel you store to keep you living and breathing and functioning. Your resting metabolic rate (RMR) is how much energy you use (i.e., calories you burn) at rest.

A high resting metabolism is a coveted quality when it comes to weight loss because it allows you to take a little more leeway in your dietary habits without weight gain consequences. As someone who has a genotype that predisposes you for an average resting metabolism, you likely won't be affected by the occasional indulgence, but will still need to stay on track with your healthy diet, exercise, and lifestyle habits to accomplish your weight loss goals. You may also benefit from taking extra measures to further bump up your RMR in order to make weight loss easier. The following steps will help accomplish those goals.





# WEIGHT LOSS

## METABOLISM

**Know your numbers.** The only way to really know your RMR is to have it tested in a special laboratory. But you can use a formula to get a ballpark estimate of your **basal metabolic rate** or BMR, which is your absolute resting metabolism taken in a dark room upon waking and after fasting. This is a good starting point for understanding your daily resting calorie burn.

Start by using following formula\*:

Men	$BMR = 88.362 + (13.397 \times \text{weight in kg}) + (4.799 \times \text{height in cm}) - (5.677 \times \text{age in years})$
Women	$BMR = 447.593 + (9.247 \times \text{weight in kg}) + (3.098 \times \text{height in cm}) - (4.330 \times \text{age in years})$

\* The Harris-Benedict equations revised by Roza and Shizgal in 1984.

Remember, that number represents the calories your body expends for general functioning. You can estimate how many calories you actually burn in a given day by figuring in your activity level.

Little to no exercise	BMR x 1.2
Light exercise (1–3 days per week)	BMR x 1.375
Moderate exercise (3–5 days per week)	BMR x 1.55
Heavy exercise (6–7 days per week)	BMR x 1.725
Very heavy exercise (twice per day, extra heavy workouts)	BMR x 1.9

**Get up and move once an hour.** Nearly everyone sits too much in our highly automated, computer driven world, and sitting is disastrous for your metabolism regardless of your genotype. When you sit a couple of hours without moving, your body starts to go into energy conservation mode, literally shutting down metabolic functions that keep you healthy. You also store more fat when you're sitting, as opposed to being on your feet. The best way to combat metabolic "sitting disease" is to get up regularly. A study published in the *International Journal of Behavioral Nutrition and Physical Activity* found that people who took six five-minute walks throughout the day—at the top of each hour in this particular study—enjoyed more energy, particularly late in the day, fewer food cravings, and less fatigue than their peers who were sedentary or who took a 30 minute walk in the morning and then sat all day.

gender. As you may have suspected, it's also influenced by your genes, which, depending on your diet, exercise, and lifestyle, can be triggered to influence metabolic factors that ultimately raise or lower your RMR.

In one study of 678 men and women, Canadian researchers found that volunteers with certain genotypes burned about 100 more calories (the amount in about 2 cookies) a day than their peers of different genotypes.

Your genes also can influence how your RMR responds when you diet and/or lose weight. In a large study of 722 overweight adults who were randomly assigned to one of four weight loss diets for two years, researchers found that certain genotypes experienced a 2% increase in RMR, so burned more calories throughout the day, following the intervention.

Your specific genotype also can have an impact on how many calories you burn overnight. One genome-wide association study of 815 children found that certain genetic variants were linked to a 5% to 6% difference in energy burned during sleep.

Our analysis investigated which genotype for these genes was present in your DNA. Your rating of **BELOW AVERAGE**, **NORMAL**, or **ABOVE AVERAGE** reflects whether your genotypes included those that carried the likelihood of having a higher RMR and having a metabolism that is responsive to diet and exercise in terms of burning fat.





# WEIGHT LOSS

## METABOLISM

Also consider using a standing desk if your job is particularly sedentary. While standing rather than sitting doesn't burn many additional calories—research finds that people who use a standing desk burned only 8 more calories an hour than when they worked sitting down—studies suggest that standing throughout the day is still better for blood sugar control and metabolic health.

**Get your recommended dose of exercise including some intensity.** RMR is one part of your metabolism. The energy you use during activity is another—and one you can use to your weight loss advantage. Aim for at least the minimum recommended 30 minutes a day of aerobic activity, which Duke researchers have found burns fat best. Also include some short harder efforts, like sprints during studio cycling classes, which fire up your metabolism and keep it fired up longer than more moderate exercise.

**Supplement: Phentralean SF to boost metabolism fat burning or Phentralean XR to boost metabolism, fat burning and increase energy. This thermogenic supplement will help accelerate your metabolic function. [Purchase Here](#)**

**Build your fat-burning engine.** Pound for pound, muscle tissue uses three times as much energy as fat tissue to sustain itself. That makes it a major driver of your metabolism. As you age, muscle decreases and fat increases, both of which dampen your metabolism. If left unchecked, you can expect to lose as much as 5% of your muscle mass per decade after age 30, according to Harvard Health. The solution is strength training. Practice progressive resistance training (where you make your workouts harder by lifting heavier weights or more sets and reps as you get stronger) two to three days a week. And it's never too late to see benefits. One meta analysis of 49 studies, representing 1,328 adults over the age of 50 found that the average exerciser was able to add 2.4 pounds of metabolism-raising lean body tissue through strength training. Research shows that resistance training also helps you maintain the muscle tissue you want while losing the fat you don't when you're dieting.

**Fuel the fire.** To keep your metabolism humming, you must eat, not starve yourself. Your body burns calories when you eat: it's called the thermic effect of feeding, which accounts for about 10% of your daily energy expenditure. Also, when you reduce your food intake too severely your body goes into starvation mode and slows down your metabolism to conserve energy. Eating regular occasional healthy snacks prevents this.

**Prioritize your protein.** Protein burns twice as many calories during digestion as fat or carbohydrates. Increasing your protein also helps change weight-regulating hormones such as GLP-1, peptide YY, cholecystokinin, and ghrelin in your favor, so you feel satisfied longer and have fewer cravings. The Recommended Daily Allowance for protein is 0.8 grams per kilogram (1 pound = 2.2 kg) of body weight. To maintain your metabolism and lose weight Duke Diet and Fitness recommends doubling this amount.

**Quell runaway stress.** Ohio State University researchers found that women who were dealing with stressful work or family situations before eating a high-fat meal burned 104 fewer calories afterwards than their non-stressed peers. They also had higher insulin levels, which encourages fat storage, and lower fat burning. Chronic stress can hinder even an otherwise healthy metabolism and add up to 11 extra pounds a year, according to the researchers' estimates. Try yoga (you'll also get exercise) or another form of relaxation to quell stress.

**Sleep well.** Your metabolism goes into hibernation when you deprive it of sleep. Regularly shortchanging your sleep (especially if you get less than 6 hours a night) wreaks havoc on your energy storage and appetite-controlling hormones, leaving you hungrier and more likely to store rather than burn the calories you eat. Aim for a metabolically healthy 7 to 9 hours of shut eye a night, as recommended by The Sleep Foundation.

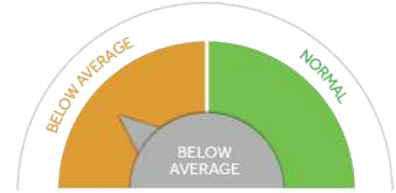


# WEIGHT LOSS

## WEIGHT LOSS TENDENCY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile is rated **BELOW AVERAGE** for Weight Loss Tendency. This means that, compared to someone else with a more favorable genotype, you might lose less weight than someone else with a different genotype when you make lifestyle changes by cutting calories in your diet and by burning extra calories when you exercise. This result also suggests that you may be at a slightly higher risk of later regaining the weight you lose compared to someone else with a more favorable genotype.



Your genetic profile indicates that your weight loss tendency is **BELOW AVERAGE**.

This does not mean that you cannot lose weight for a diet and exercise program. It just means that, compared to other people with a different genotype, you may lose slightly less weight or body fat than those with a more favorable genotype who are following a similar program.



Does this result mean that you cannot lose weight? Absolutely not! Remember that these results only indicate your potential based on genetic factors, but many other factors also affect the outcome. Even if you have the genotypes that may decrease your tendency to lose weight, whether those genes are expressed or not depends upon diet, exercise and environmental influences. However, your results do suggest that it may be a good idea to employ strategies that will maximize your results.

### SUCCESS STRATEGIES

Fat loss comes from reducing the number and types of calories you eat and increasing the number of calories that you burn from exercise. The most powerful—and permanent—weight loss comes when you do both. Choose a plan that is most likely to work for you. Following the suggestions from the genetic analysis of your Food and Exercise genes can help you

### RELATED GENES / SNPs

**FTO, TCF7L2, MTNR1B, PPARG, BDNF, ABCB1, PPARG**

The genes and their associated SNPs that are included in this category have all been shown in scientifically sound studies to have statistically significant associations with a person's tendency to lose weight and keep it off. Several large studies have shown that people who participated in intensive and long-term diet and exercise programs exhibited significantly different weight loss responses based upon their genetic profile. Those people who carried the most 'unfavorable' pairs of these 7 genes lost weight with the diet and exercise program—but, on average, they tended to lose less weight compared to other participants who had fewer, or who did not carry the 'unfavorable' genotypes. Also, after completing the diet and exercise program, people with more of the 'unfavorable' genes were, on average, also likely to regain some



# WEIGHT LOSS

## WEIGHT LOSS TENDENCY

Identify foods and a fitness plan that may make it easier to lose weight. Different approaches work for different people. Here are some diet and exercise tips that may be helpful.

### TIPS FOR EFFECTIVE DIETING:

- Choose a plan that you will enjoy and that you will be able to stick to. It should include foods that taste good to you and an approach that fits with your lifestyle.
- Pay attention to influences that make it hard for you to choose the right foods or stick to a diet. For example, if you travel frequently and find it hard to eat well on the road, identify foods you can carry with you and the healthiest fast-food choices you might need to rely on.
- Identify reasons why you didn't stick to past diets. Develop back-up plans so that you aren't derailed from your diet if the same, or similar, circumstances arise again. For example, if you know that you will eat an entire bag of chips or package of cookies if you keep them at home, then take them off your shopping list. But give yourself a back-up snack that you can go to when you are having an I-Need-A-Cookie moment. It might be a nutritious nut energy bar, or simply some fresh blueberries

### TIPS TO GET THE GREATEST EXERCISE CALORIE BURN

- If you are trying to burn more calories through exercise, favor the kind of exercise that burns the most calories in the amount of time that you spend exercising. This tends to be cardio workouts like walking, running, cycling, swimming, aerobics, dancing and any of the cardio machines. You can also get a sizable calorie burn from a fast-paced, boot camp-style or circuit training with weights workout. Slower-paced workouts like yoga and Pilates do not burn as many calories, so if you are doing these types of workout on most days of the week, focus on doing more cardio workouts instead.
- **Phentralean XR will help control appetite while providing an energy boost. If your genetic caffeine tolerance is low, choose the non-stimulant Phenatrallean SF. [Purchase Here](#)**
- Exercise intensity is key for most people: the harder you work during both cardio and muscle conditioning exercise, the more calories you can burn, and the fitter your muscles and heart will become. But if you are a new exerciser, or if you are trying a new type of workout you'll need to start easy and over time, work up workouts that are longer and harder. Start with 10-20 minute walking sessions if you need to, and over weeks add more time to the sessions and work at a harder intensity. When lifting weights, start with light weights and as you learn correct form/biomechanics of the exercise, increase resistance, with the goal of using enough resistance that the last 2-3 repetitions of 15-20 reps are challenging. **Muscle Balance supplement will help maintain muscle mass with a special blend of amino acids. This speeds up metabolism during exercise. [Purchase Here](#)**
- For those effective results you need to burn enough calories to affect your body weight, aim for a minimum of 50 minutes and up to 300 minutes per week—or more—of moderate-to-vigorous cardio exercise (e.g., jogging, walking, swimming, etc.). Ideally, you should incorporate some cardio every day, at least 5 days per week, in the morning before you eat.

of the weight that they had lost. Keep in mind, however, that great individual variation is seen in research studies like these.

The stated results are an average of all those within a group, but there can still be differences even among those with the same genotype.

Our analysis investigated which genotype for each of these 7 genes was present in your DNA. Your rating of either **NORMAL** or **BELOW AVERAGE** reflects whether your genotypes included those that carried a risk of reduced weight loss tendency.



# WEIGHT LOSS

## WEIGHT LOSS TENDENCY

- Weight-training should be a part of your diet and exercise routine. Not only can weight training help you to become stronger, when you lift weights you can prevent or minimize the loss of muscle that occurs with dieting alone. You only need to lift weights 2 or more days per week, with a rest day in between. Sessions can be short: 20-40 minutes, as long as you target all your major muscle groups in the upper and lower body. Make sure that the resistance exercise you do challenges your muscles appropriately. Yoga and Pilates are good for flexibility, balance, muscle endurance, and for building minimal levels of strength. But you are more likely to build and preserve the muscle that you may lose with dieting with a progressive weight-training program.
- Reduce your sitting time! While standing more or moving around throughout the day is not considered 'exercise', the physical activity does add up and can help you burn more calories all day.

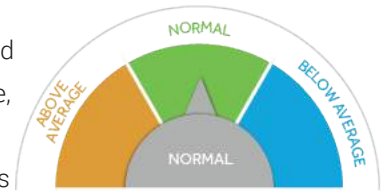


# WEIGHT LOSS

## WEIGHT REGAIN

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits characteristics that make you likely to have a **NORMAL** likelihood of regaining weight following a weight loss intervention. That's not bad news, but it's not necessarily good news, either, given that some reports indicate that, on average, about 80 percent of people regain lost weight and that genetics play a role. That does not mean you are destined to regain your weight, of course. Your genotype is just one of a myriad of factors that influence weight regain. By implementing smart diet, exercise, and lifestyle maintenance strategies, you can help prevent pounds from creeping back on after you've reached your weight loss goal.



Your genetic profile indicates you are likely to have a **NORMAL** likelihood of regaining weight after losing weight through a lifestyle intervention.



In this case, average is not the best scenario, because most people regain pounds following weight loss. You will need to practice weight maintenance behaviors to prevent weight regain.

### RELATED GENES / SNPs

**FTO, PPARG, BDNF, NEGR1, TMEM18, KTC15, GNPDA2**

The genes and associated SNPs included in this category have been shown to have significant associations with a person's likelihood to regain weight after lifestyle induced weight loss.

Losing weight is a two-part process. First there's the hard work and dedication to drop the unwanted pounds; then there's what can sometimes be the even harder work and dedication to keep those pounds from coming back. Research shows that approximately 80 percent of people who lose weight will go on to regain it—a phenomenon scientists have been working hard to understand.

What's clear is that the regain isn't due to one singular factor, but rather a confluence of factors. People often slip back into old

### SUCCESS STRATEGIES

Weight loss is hard work. Maintaining that loss is a lifetime job. That can be difficult news to swallow at first, but the fact is that the vast majority of people who lose a substantial amount of weight will go on to regain most, if not all of it in the following years. Genetics play a role. As someone whose genotype gives you an average likelihood of regaining weight, you'll need to take diet, exercise, and lifestyle steps to make sure your hard earned weight loss sticks. But don't get discouraged. Surveys find that if you can keep the weight off two to five years, your odds of keeping it off become much higher. The following strategies will help.

**Embrace the "new normal."** We often get into the mindset that we need to work hard to lose weight, and then once the unwanted pounds are off, we can get back to "normal." However, it's important to remember that much of



# WEIGHT LOSS

## WEIGHT REGAIN

what was “normal” is what resulted in the weight gain to begin with. To maintain lost weight, you need to adjust your mindset to embrace the “new normal.” That means maintaining the eating, exercising, and lifestyle habits that allowed you to lose weight. That doesn’t mean you have to shun special treats for the rest of your life, but it does mean remembering that the new, lighter you is someone who watches portion sizes, eats healthfully most of the time, exercises regularly, and follows the same routines that got you to your weight loss goal.

**Make physical activity a daily priority.** Exercise is essential for weight maintenance. Based on a growing body of research, the American College of Sports Medicine recommends at least 200 to 300 minutes—about 30 to 45 minutes a day—of exercise a week to prevent regain after losing weight. In one weight loss review, researchers found that members of The National Weight Control Registry who had lost an average of more than 70 pounds and kept it off for more than five years exercised about an hour a day.

Regular exercise doesn’t just burn calories, but also appears to help your body adjust your appetite according to your new lower body weight. One study found that physical activity appears to make your body more sensitive to leptin, a hormone that helps regulate your body’s energy balance by blunting hunger, so you don’t have the urge to eat more than you need.

**Tame your appetite.** A groundbreaking study published in the journal *Obesity* confirmed what frustrated dieters have long suspected: weight loss makes you hungry—like really hungry. The study, which analyzed the relationship between weight loss and energy intake, found that weight loss leads to a proportional increase in appetite. Specifically, people ate an additional 100 calories for every two pounds they lost. Exercise helps control your appetite. Smart food choices will also help reduce hunger. **For additional appetite control, use Phenatrealan SF Supplement. [Purchase Here](#)**

Aim to include fiber-rich veggies in every meal; drink plenty of water throughout the day, opt for complex carbs and healthy fats, and pump up your protein intake. Protein helps tame hunger by increasing hormones that help boost satiety and by reducing hormones that increase hunger, so it’s easier to keep your food intake in check.

**Manage stress.** They don’t call it “stress eating” for nothing. Uncontrolled stress increases levels of the fight or flight hormone cortisol, which has been linked to increased appetite, impulsive and binge eating, as well as increased belly fat. Practice daily stress management techniques like mindfulness, meditation, or yoga. Exercise also helps relieve stress.

eating habits and let their exercise routines slide. Your metabolism may slow following a significant weight loss, making it harder to keep pounds off. **Your appetite may increase as your body tries to find homeostasis.**

Research shows that your genes also play a significant role in weight regain. In one study of 3,234 overweight or obese adults where participants followed an exercise, medication, and/or lifestyle plan to lose 7% of their body weight, researchers identified three SNPs that were associated with weight regain, regardless of the weight loss method used. The researchers concluded that genetic screening could help identify people who require additional support to maintain weight loss after a treatment intervention.

Another large-scale study on nearly 3,900 overweight or obese adults identified SNPs associated with the FTO gene that were strongly related to weight regain. In fact, among those who had successfully lost weight after one year, those with specific risk alleles (variant forms of a gene) for the FTO gene regained about 3 pounds for every risk allele they carried at the four-year follow-up.

Our analysis investigated which genotype for these genes was present in your DNA. Your rating of **BELOW AVERAGE**, **NORMAL**, or **ABOVE AVERAGE** reflects whether your genotypes included those that carried the likelihood of regaining weight.



# WEIGHT LOSS

## WEIGHT REGAIN

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**Make muscle.** Strength training helps you maintain metabolism-revving muscle while you lose fat. It also helps you keep the weight off by keeping your metabolism humming along. Surveys show that weight lifting is also one of the habits of successful long-term weight loss maintainers. Lift two to three times a week, targeting all your major muscles, to help fend off weight regain.

**Supplement: Muscle Balance to maintain healthy muscle tone. [Purchase Here](#)**

**Stay on the scale.** You may not love it, but the bathroom scale is one of your strongest allies for maintaining weight loss. Successful maintainers weigh themselves regularly to keep themselves accountable and prevent pounds from slowly slipping back on. It's one of the top habits of "successful losers" in The National Weight Control Registry. One study found that people who weighed in daily ate nearly 350 fewer calories a day, likely because the weigh in made them more mindful of their behaviors the rest of the day, than those who stepped on the scale less frequently. Weigh yourself at least weekly, more frequently if you feel you need extra accountability to keep yourself on the right track.

**Be consistent.** It's normal to want to cut loose and splurge on the weekend, but Saturday night nachos can roll into Sunday morning all-you-can-eat brunch and before you know it, you've slipped back into old habits and derailed your hard earned progress. The National Weight Control Registry reports that eating consistently across weekdays and weekends is one of the top habits of highly successful weight loss maintainers. Consistency can be difficult at first, but once you cement your healthy habits, it will become second nature.





# WEIGHT LOSS

## SATIETY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits characteristics that make you likely to have a **WELL BELOW AVERAGE** satiety response and a significantly increased likelihood of experiencing food cravings. That means your hunger and appetite-regulating hormones ghrelin and leptin may be dysfunctional and not respond appropriately after you eat and you may not feel full and satisfied following a meal. You also are much more likely to have food cravings. This can make it challenging to maintain healthy portion sizes, resist second helpings, and to avoid the temptation to snack during the day, all of which can make it tough to reach your weight loss goals. You may need to adjust your diet and your eating behaviors to improve your satiety and counteract the effects of your genotype.



Your genetic profile indicates you are likely to have a **WELL BELOW AVERAGE** satiety response and a significantly increased likelihood of food cravings.

This makes it hard to watch your portion sizes and keep snacking in check. You should take extra steps to improve your satiety and keep hunger and food cravings at bay.

All your life you've likely had people tell you that if you want to lose weight you should just eat when you're hungry and stop when you're full, maybe even before you are completely full. That feeling of fullness that suppresses hunger after a meal is called satiety. We now know that not everyone experiences it the same way and that it is largely influenced by your genes.

Your genotype makes it likely that you will not have a normal feeling of fullness after a meal and you are highly likely to experience food cravings outside of meals and planned snacks. This can make it very difficult to stick to a nutrition plan and lose weight. You can counteract the effects of your genotype by taking extra dietary and behavior measures to improve your satiety and quell cravings.

**Phentralean SF appetite control will work to boost your metabolism and curb cravings. [Purchase Here](#)**

### RELATED GENES / SNPs

#### FTO

The gene and its associated SNPs included in this category have been shown to have significant associations with a person's satiety, or how likely you are to have difficulty feeling "full" even after eating a meal, as well as how vulnerable you are to having food cravings.

Satiety is triggered by the expansion of your stomach and your "hunger hormones," including leptin, which decreases appetite (also sometimes called the satiety hormone) and ghrelin, which increases it, that are released during digestion and absorption of the food and beverages you take in. All these signals come together in the brain, which then tells you you've had enough to eat.

How well your body produces and responds to satiety signals is also determined by your genes. A number of genes, of which FTO



# WEIGHT LOSS

## SATIETY

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### SUCCESS STRATEGIES

**Pump up the protein.** Even modest increases in protein can improve your satiety, as it takes longer to digest than other macronutrients and it may help suppress ghrelin after you eat. Aim to include protein in every meal and snack.

**Fill up on fiber.** Dietary fiber is good for your heart health and it may also help improve satiety by keeping you full longer. Recent animal research suggests that fiber also may act on your brain to suppress appetite. Make it a goal to eat between 25 and 30 grams of fiber a day.

**Eat more high volume, low calorie foods.** If it takes more food to fill you up, fill up on food that is high in nutrition, but low in calories like vegetables and fruits. Filling half your plate with these plant foods will help you feel more satisfied with fewer calories.

**Choose your drinks wisely.** You might want to skip that pre-dinner cocktail. Alcohol lowers your inhibitions and can act as an appetite stimulant, making it likely that you'll eat more than planned (as well as adds empty calories to your daily intake). Also limit sugary beverages, which are high in calories and less satiating than solid foods

**Eat more slowly.** There's science behind the old advice to chew your food thoroughly and take at least 20 minutes to eat a meal if you want to feel full and stay satisfied longer. One study found that people who took 30 minutes to eat a meal felt significantly more full and less hungry than those who chowed down in five minutes.

**Practice mindful eating.** Turn off the TV or computer, put down the phone, and tune into your food instead. Research shows that people who pay attention to what they are eating are more likely to feel fuller and have less desire to keep eating than those who consume food while they are distracted with something else. Paying attention to your meals may also increase your enjoyment of them.

is most prominent, help regulate satiety. Numerous studies have linked SNPs in the FTO gene with higher food intake, decreased satiety response, and dysfunctional appetite regulation.

Specifically, research shows that people with one copy of the A allele for this gene have a higher chance of feeling less satiated, having higher ghrelin and lower leptin levels, and having food cravings. Those born with two copies of the A allele have even greater odds of having low satiety and increased cravings.

Unsurprisingly, there's a strong correlation between satiety and weight, and the impact starts early. One study of 2,258 children found that their satiety responsiveness was strongly linked to both BMI and waist circumference. Low satiety is an important avenue through which your genetic predisposition can lead to weight gain and make it harder to lose weight, especially in today's world, where food is everywhere you look.

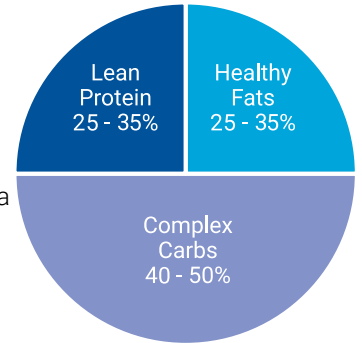
Our analysis investigated which genotype for FTO was present in your DNA. Your rating of **NORMAL**, **BELOW AVERAGE**, or **WELL BELOW AVERAGE** reflects whether your genotype included those that carried the likelihood of having low satiety and increased food cravings.



# SUMMARY

## What foods do you need to eat?

Your genotype suggests that you may have a better response to a weight-loss diet if daily calories come from the following proportions of fat, carbohydrates, and protein. You can monitor this with a diet log.



Based on your gender, age, height, current weight and current activity level, we recommend a diet of approximately **1,318 calories per day** to lose weight. This number was calculated estimating your total energy expenditure, or the number of calories your body needs each day. Since you are interested in losing weight, you will need to eat fewer calories than your total energy expenditure. We suggest a modest calorie reduction of 20 percent. We have calculated this reduction into our calorie recommendation for you, so if you eat around 1,318 calories per day, you can expect to lose weight. This is not a drastic calorie reduction, so you should not feel hungry or like you are denying yourself food if you eat this many calories.

The amount of exercise you get can change your energy requirements. Therefore, you may need to eat more calories than this is if you are performing 45 minutes or more of moderate-to-high intensity cardio exercise on a daily basis.

RECOMMENDATION	PERCENT	GRAMS	CALORIES
<b>PROTEIN</b> Choose a reduced-calorie diet that is between 25-35% protein. Get your protein from lean meats and plant food sources such as beans, legumes, nuts, seeds and vegetables.	25% to 35%	82g to 115g	330 to 461
<b>FAT</b> Choose either a low- or moderate-fat, reduced-calorie diet. Get your fats mostly from plant foods, but avoid excess added oils.	25% to 35%	37g to 51g	330 to 461
<b>CARBOHYDRATES</b> Choose a plant-based diet that is high in complex carbs (veggies, beans etc.), and avoid simple or processed carbs (fries, chips, crackers, etc.).	40% to 50%	132g to 165g	527 to 659

The total number of calories or grams of each macronutrient shown represent a recommended amount to consume each day.

It's tough to keep track of this simply by reading food labels. That's because most foods contain a combination of the macronutrients. A food item usually contains either protein and fat (such as meat), carbohydrates and fat (such as oil-sauteed vegetables or French fries), or protein, carbohydrates and fat (beans, nuts and seeds, a chicken salad or a hamburger with a bun).

It's not easy to know how much of any one macronutrient you are getting or if you are achieving your macronutrient goals simply by looking up the content of one food item. To determine your percentages of macronutrients, such as the fat or protein content of



## SUMMARY

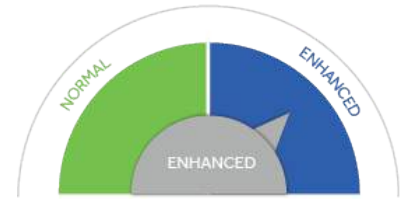
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ALL the foods you eat in a day, you'll need to use a dietary app or online food log. You input what you eat and it will assess your overall macronutrient breakdown at the end of each day. We provide you with sample menus that can give you an idea of what a menu with your recommended macronutrient ranges will look like. But the only way to really know if you are reaching the suggested ranges for each macronutrient is to keep track by entering what you eat into a food log online or on an app.

# PROTEIN UTILIZATION

## WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits an **ENHANCED** utilization of protein. Your score reflects the fact that your genotype does include the allele combination that resulted in greater weight loss when a higher percentage of protein was eaten on a diet. Studies that investigated this genotype found that a diet consisting of 25% or more of protein resulted in optimal weight loss. This suggests that the amount of weight or body fat that you lose from a diet is very likely to be affected by the percentage of protein you eat..



Your genetic profile indicates that your response is **ENHANCED**.

This indicates that you may lose more weight from dieting if you eat a moderate-to-high percentage of protein. Aim for 25% to 30% of your total calories to come from plant or animal-based protein.



This genotype also resulted in the loss of more lean body mass from dieting compared to those without this genotype. Lifting weights during dieting is an effective way to minimize or prevent the loss of muscle that can occur with weight loss.

## SUCCESS STRATEGIES

Consuming a diet that is moderate-to-high in protein when you diet may help you to optimize your weight loss. Since you have a higher risk of losing muscle mass when you lose weight, it is important to include regular resistance training during your weight loss period.

## RELATED GENES / SNPs

**FTO, LCT**

The gene and associated SNPs included in this category has consistently been shown to be associated with body fat mass and BMI. One large study found that people with the unfavorable genotype who dieted lost more weight, body fat and fat in the torso if they ate a moderate-to-high protein diet (25% or more of total daily calories) compared to a lower protein diet (15% of total daily calories), regardless of fat and carbohydrate distribution. However, they also lost more non-fat mass – which includes muscle – with the weight loss, even though they were eating a higher protein diet and exercising.

Our analysis of your genes investigated which genotype for this SNP was present in your DNA. Your rating of either **NORMAL** or **ENHANCED** reflects whether your genotype included those alleles that exhibited protein sensitivity because their presence resulted in increased weight and fat loss on a moderate-to-high protein, reduced calorie diet.



## PROTEIN UTILIZATION

### DIET

The body needs a certain minimum amount of protein to meet its needs to produce muscle, hormones, enzymes, skin and for other functions. The recommended daily allowance for protein is determined based on your body weight. On average, the recommendation is to obtain between 0.8 and 1 gram of protein per 1 kilogram of body weight. If you weigh 175 lbs, or 80 kg, it is recommended that you get between 64 and 80 grams of protein per day. That means if you eat 2,500 calories daily while on a normal food plan, you can get this amount by eating between 10% and 13% protein in your diet. But if you go on a calorie-reduced diet and consume only 1,500 calories, to reach your quota, you may need to eat a slightly higher percentage of protein, around 17% to 21% protein. Your genotype suggests that, while dieting, you may benefit from an even higher percentage of protein – from 25% to 30%.

Protein in your foods should contain all of the essential amino acids. Animal foods contain all of the essential amino acids in one food item, such as meat, fish or dairy products. You can also obtain all of the essential amino acids in many single plant foods, including grains such as quinoa, seeds such as shelled hemp hearts (hemp seeds), and beans such as edamame or tofu. Or you can consume several complementary plant foods in the same day and obtain the essential amino acids that your body needs (brown rice and black beans; nuts, grains and beans; veggies, beans and grains, etc.)

If your genetic profile suggests you should reduce your intake of total fat or saturated fat, choose leaner versions of animal foods or plant-based protein foods.

To track the percentage of protein you get, record your food intake for at least a week and use a tool that can calculate the percentage of each of the macronutrients that you eat.

### EXERCISE

Since this SNP is also associated with reduced non-fat mass from dieting, which can include the loss of muscle, it is recommended that you include progressive resistance training using heavier weights in the exercise plan that you follow while you are dieting. This may help minimize or prevent the loss of lean body *mass*.

**The amino acids in Muscle Balance work to maintain your muscle tone. Use Isolate Whey Protein to help supplement your protein intake, especially while training. [Purchase Here](#)**

Study your results from the genetic analysis for your exercise-related genes for a more specific exercise prescription. But for optimal muscle strengthening, you should perform exercises with weights targeting your major muscle groups.

## SUGGESTED PROTEINS

*suggested servings contain listed grams of protein*

Chicken Breast (3oz) - 25g

Ground Turkey (3oz) - 22.5g

Lean Beef (3oz) - 22g

Broiled Fish (3oz) - 20g

Lentils/Black Beans (1/2c) - 9g

Turkey (3oz) - 24g

Pork/Lean Ham (3oz) - 18g

Lamb (3oz) - 21g

Quinoa (1/2c) - 12g

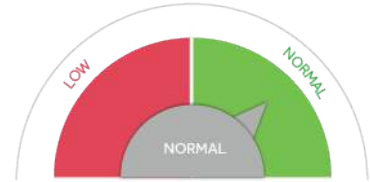
Tofu (1/2c - 4.4oz) - 11g



## FAT UTILIZATION

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **NORMAL** utilization of fat. Your score reflects the fact that for the genes investigated, your genotype showed few, if any, of the unfavorable allele combinations. *This means that you appear to have a normal ability to lose weight from a diet and exercise program, whether the diet that is low, moderate or high in fat, as long as you are eating fewer calories than you expend each day. This result also suggests that you have a normal level of fat oxidation, or fat-burning ability in response to different levels of fat in your diet.*



Your genetic profile indicates that your utilization of fat is **NORMAL**.

If you are dieting, or reducing calories to create a negative energy balance, you can expect to lose similar amounts of weight on either a low or a moderate fat diet.



### RELATED GENES / SNPs

**PPARG, TCF7L2, APOA5, CRY2, MTNR1B, PPM1K**

The six genes and their associated SNPs that are included in this category all have been shown in scientifically sound studies to have statistically significant associations with how sensitive people are to eating a diet high in fat. In other words, these studies showed that the amount of fat in the diet affected how much weight individuals lost from a lifestyle intervention depending on the genotype at these genes. One study found that those people with an unfavorable genotype were more likely to have more body fat, a larger waist size and a higher BMI the more fat they ate, compared to others without the same genotypes. Another study found that people with a protective genotype appeared to be able to consume greater amounts of fat, but without exhibiting higher BMIs. Another study found that people who went on a low-calorie diet that was higher in

### SUCCESS STRATEGIES

While you may experience similar results in terms of weight loss from following a reduced-calorie diet, no matter if it is low, moderate or high in fat, you may still be sensitive to other effects that higher intakes of fat may have on the body, especially from saturated fat from animal foods. It's tough to know how much fat you are consuming unless you are actively tracking what you eat and entering it into a diet app or online nutrition log. You might find it helpful to first determine how much fat you are currently eating so that you can identify ways to keep it at desired levels.

If you choose to eat higher-fat foods, be mindful of their high energy density. Since fat contains more calories per gram compared to the other macronutrients, foods and meals that are high in fat tend to have more calories. This makes it easier to overeat because you can easily consume more calories than you may realize.





## FAT UTILIZATION

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While your genetic profile suggests that you may be better able at handling higher levels of fat when you diet, if you are trying to lose weight, you will still need to reduce the number of calories that you eat. You may still need to reduce how much of these foods that you eat. You may be better able to handle a high-fat food, but if you are trying to lose weight, limit yourself to a small portion of the food.

fat lost less weight if they had an unfavorable genotype. Our analysis of your genes investigated which genotype for each of these 6 genes was present in your DNA. Your rating of either **NORMAL** or **LOW** reflects whether your genotypes included those that carried a risk of reduced weight loss ability from a diet that was high in fat.

### SUGGESTED FATS

*suggested servings contain listed grams of fat*

Avocado (1/2 fruit) - 10g

Coconut Oil (1T) - 14g

Olive Oil (1T) - 14g

Nut Butters (1T) - 8g

Coconut (1 piece, 2" x 2" x 1/2") - 15g

Olives (1T) - .9g

Nuts/Seeds (1/4c) - 13g

Butter (1T) - 12g

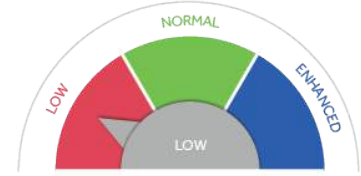
Oils (1T) - 14g



## CARB UTILIZATION

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **LOW** utilization of complex carbohydrates. Your score reflects the fact that your genotype appears to favor a lower carbohydrate diet. You may experience better weight loss results from a diet that focuses on eating protein, healthy fats, and vegetables, while limiting foods high in carbohydrates.



Your genetic profile indicates that your utilization of complex carbohydrates is **LOW**.

This suggests that you may experience the best weight loss results if you follow a diet that is lower in carbohydrates. This means that you should focus on including more lean protein, healthy fats, and vegetables, while limiting carbohydrate-rich foods.



### RELATED GENES / SNPs

**IRS1, FGF21**

The gene and associated SNPs included in this category has been shown to be associated with a person's insulin sensitivity and the potential effects of the amount of carbohydrates and fat in the diet. Insulin is a hormone released by the body that helps cells take in glucose, or sugar, for energy. Glucose is present in the blood after the digestion of carbohydrates from foods like fruit, vegetables, legumes and grains. Insulin is also released in response to eating protein as it helps to shuttle amino acids into cells, as well.

Our body relies on glucose, and this is why blood sugar levels are maintained within a consistent range. In fact, brain cells and red blood cells use glucose as their primary source of energy. Cells also use fat as a fuel source, but to metabolize fat, there must be some glucose present to complete the process. Glucose is a very important nutrient.

But sometimes cells do not respond to the

### SUCCESS STRATEGIES

#### *Eat more complex carbohydrates*

You still need carbohydrates, but because your genetic profile indicates that your utilization of carbohydrates is low, it's important to not overdo them in your daily diet, as it will make it more difficult to lose weight. Skew your diet more heavily on lean protein and healthy fat.

Steer completely clear of processed, "junk" carbs like potato chips, crackers and snack foods, and limit other high-carb foods like fruit juices, breads, cereals, and baked goods. Strive to eat whole plant foods like vegetables as your primary source of complex carbohydrates. **Supplement Carb Attack works to slow carbohydrate and sugar absorption and reduce cravings. Great for meals with high carb foods. Purchase Here**

Eat most of your complex carbohydrates from non-starchy vegetables like asparagus, broccoli, greens, peppers, and others on the Preferred Vegetable list. When eating carb-rich starchy vegetables and fruits, choose those that are high in fiber and nutrients such as beans, peas, squash, apples, berries,



# CARB UTILIZATION

and other foods on the Preferred Legumes, Preferred Starchy Vegetables, and Preferred Fruits list. Limit most grains, choosing from protein and fiber rich varieties such as quinoa, kamut, and oats. Use the glycemic index (GI) as a tool to help choose foods. The glycemic index is a rating assigned to foods that contain carbohydrates that reflects their potential effects on blood glucose levels. The higher the GI number, the faster a food may be digested and absorbed, potentially resulting in higher blood glucose levels and greater insulin release. However, there is great inter-individual variation in tested foods and in people's responses, so a food's stated GI value may vary. Also, other factors affect a GI number, including the other foods that will be eaten at the same meal.

Foods high in carbohydrates that are more processed may have higher GI numbers. So this tool may help you identify foods that may be more or less processed and this may help you make more nutritious food choices. Some people believe that choosing low glycemic foods can aid weight loss, but there is no evidence that glycemic index affects body weight. How many calories you consume, no matter the type, is the best predictor of weight loss: the fewer you eat, the more weight you will lose. **Complete Super Food benefits your Ph balance (too acidic slows your metabolism), reduces inflammation, and the included probiotics break down foods to aid in digestion. Purchase Here**

## SUGGESTED CARBOHYDRATES

*Preferred Vegetables - 11/2 cups raw or cooked contains*

### *15g of carbohydrates*

Artichoke	Greens (collard, kale, mustard, turnip)
Asparagus	Kohlrabi
Bean sprouts	Leeks
Beans (green, wax, Italian)	Mixed vegetables (no corn or peas)
Beets	Mushrooms
Broccoli	Okra
Brussels sprouts	Onions
Cabbage	Pea pods
Carrots	Peppers
Cauliflower	Radishes
Celery	Salad greens
Cucumber	Sauerkraut
Eggplant	Spinach
Green onions or scallions	

insulin being released, a condition known as insulin resistance. The result is the bloodstream can be overloaded with glucose. Chronic high blood glucose levels can lead to diabetes, or uncontrolled high blood sugar. People who are overweight and/or physically inactive are at higher risk of insulin resistance.

Since carbohydrate intake triggers insulin release, many people assume that eating more carbs is not healthy and can lead to body fat and weight gain, as well as diabetes. But the relationship is not that simple: many people who eat a high carbohydrate diet are not overweight and do not have diabetes, and, in fact, may have much lower levels of blood glucose. Several large epidemiological studies have shown that increased carb intake actually leads to a lower risk of diabetes and that, surprisingly, increased protein intake, increases the diabetes risk.

The type of carbs you eat play a role: If you eat mostly processed carbs, you are likely to release greater amounts of insulin and this could affect your insulin resistance.

The IRS1 gene in this category seems to influence insulin resistance and the body's response to carbs in the diet. One long term study found that people with a variant of this gene who ate a high carbohydrate, lower fat diet that consisted of high fiber, whole plant foods, as opposed to processed, lower fiber carbs, had greater insulin sensitivity—and lower levels of insulin and insulin resistance—and experienced greater weight loss compared to eating a lower carb, higher fat diet.

Research also finds that variations of the FGF21 gene, which helps regulate carbohydrate intake and metabolism, influence how people lose weight in response to a high or low carbohydrate diet, with



## CARB UTILIZATION

### SUGGESTED CARBOHYDRATES CONT.

Summer squash

Tomato (canned, sauce, juice)

Turnips

Water chestnuts

Watercress

Zucchini

*Preferred Legumes (Beans) - 1/2 cup contains 15g of carbohydrates*

Garbanzo/Chickpeas

Split peas

Pinto beans

Black-eyed peas

Northern beans

Lentils

Fava/Broad beans

Edamame beans

Kidney beans

Navy beans

White beans

Mung

Black beans

*Preferred Starchy Vegetables - suggested serving size contains 15g of carbohydrates*

Peas, green (1/2 c)

Yam, sweet potato, plain (1/2 c)

Red/New Potato, baked or boiled, 1 small (3 oz)

Squash, winter - acorn, butternut (1 c)

*Preferred Fruits - suggested serving size contains 15g of carbohydrates*

Apple, unpeeled, 1 small (4 oz)

Grapes, 17 small (3 oz)

Pear, fresh, 1/2 large (4 oz)

Apricots, fresh, 4 whole (5 1/2 oz)

Honeydew, 1 slice (10 oz or 1 c cubes)

Pineapple, fresh 3/4 c

Banana, small 1 (4 oz) Blackberries (3/4 c)

Kiwi, one (3 1/2 oz)

Plums, 2 small (5 oz)

Blueberries (3/4 c)

Mango, small, 1/2 fruit (5 1/2 oz or 1/2 c)

Raisins (2 T)

Cantaloupe, small (1/3 melon or 1 c cubes)

Nectarine, 1 small (5 oz.)

Raspberries (1 c)

Cherries, sweet, 12 fresh (3 oz)

Orange, 1 small (6 1/2 oz)

Strawberries, whole berries (1 1/4c)

Grapefruit, 1/2 large (11 oz)

Papaya, 1/2 fruit (8 oz or 1 c cubes)

Tangerines, 2 small (8 oz)

*Preferred Grains - 1/2 cup contains listed grams of carbohydrates*

Couscous - 15g

Peach, fresh, 1 medium (6 oz)

Watermelon, 1 slice (13 1/2 oz or 1 1/4 c cubes)

Kamut - 26g

Quinoa - 28g

Oats - 15g

Barley - 22g

Amaranth - 23g

### PROCESSED/LESS DESIRABLE CARBOHYDRATES

*Less Desirable Starchy Vegetables*

Mixed vegetables with corn or peas

Corn on the cob

Corn

*Less Desirable Grains*

Bread

Cereal

Rice

Bagel

Crackers

Pasta

Pancake/Waffle

certain genotypes having a larger reduction in weight with a low carbohydrate diet and a lesser reduction in weight with a high carbohydrate diet.

Our analysis of your genes investigated which genotype for this gene was present in your DNA. Your rating of either **LOW** **NORMAL** or **ENHANCED** reflects whether your genotype included those genes that increase risk of reduced weight loss ability from a low carb, higher fat diet, or if your genotype included those genes that responded more favorably to a lower carb diet.



# FOOD SENSITIVITY

## SWEETS PREFERENCE

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits characteristics that make you likely to have an average sweet intake and your preference for sugary sweets is likely to be in the **NORMAL** range. That means you are not genetically inclined to have exceptionally strong sugar cravings or to eat sweets to excess, but it's still important to pay attention to how much added sugar you eat, as the average American consumes about 66 pounds of added sugar per year, which contributes to weight gain as well as cardiovascular and metabolic diseases like diabetes.



Your genetic profile indicates you are likely to have an average sugar intake and that your preference and craving for sugary sweets is likely to fall in the **NORMAL** range.

That's good news, since consuming too much sugar leads to weight gain and health problems. But it is still important to keep your intake of added sugar in check.

It's no secret that eating too much sugar is a big public health problem. The American Heart Association (AHA) warns that we should eat no more than about 6 ½ to 9 ½ teaspoons (100 to 150 calories) of added sugar a day depending on our size and gender. Yet, most of us consume two to three times the AHA's recommended amounts each day (about 20 teaspoons or 82 grams on average), often without even knowing it, because even if we choose to avoid sweets and sugary foods, there's so much hidden sugar in our food supply, we can exceed the recommended amount, even if we're otherwise careful.

As someone with a genetic tendency to not be susceptible to strong sugar cravings or to consume high amounts of sweet foods, it may be easier for you to hit the AHA goals without also battling a raging sweet tooth. That said, it's normal for everyone to have some sweet cravings regardless of their genetic disposition. Surveys find that 97% of women and 68% of men have food

### RELATED GENES / SNPs

#### FGF21, SLCA2

The genes and associated SNPs included in this category have been shown to have significant associations with a person's sweet taste perception and their preference for sugary foods, or what we commonly call a sweet tooth.

Your liver regulates your carbohydrate (especially sugar) intake through the production of a hormone known as fibroblast growth factor (FGF21). When you eat sugar, it pumps out FGF21, which in turn sends signals to your brain to let you know when you've had enough "sweets." Animal studies show that mice lacking the ability to produce this hormone eat about twice as much sugar as those who have a greater expression of FGF21, who not only take in less sugar but also less non-caloric sweetened food.

One study of more than 6,500 Danish



# FOOD SENSITIVITY

## SWEETS PREFERENCE

cravings, including those for sugar. It's also easy to develop a taste for sweets if you typically put sugary sweeteners in your coffee, start your day with a pastry, and/or swear by an afternoon or bedtime treat.

### SUCCESS STRATEGIES

To avoid eating more than the recommended amount of sugar, try a few simple strategies:

**Check your labels.** You already know the obvious sugary sweets like cakes, candy, and cookies. To avoid hidden sugars where you don't suspect them, read your labels, especially of common culprits like soups, sauces, crackers, and cereals (pretty much anything in a box, jar, or carton). Look for added sugar by all its names, including beet sugar, brown sugar, cane sugar, corn sugar, corn sweetener, corn syrup, fruit juice concentrates or purees, high-fructose corn syrup, honey, malt sugar, molasses, raw sugar, syrup, maple syrup, and of course, sugar. Ingredients ending in "ose" like dextrose, fructose, glucose, lactose, maltose and sucrose all mean sugar. If any of those ingredients are in the top three ingredients, put it back on the shelf.

### Supplement Glucose Stabilizer to support metabolic function and promote glucose absorption. [Purchase Here](#)

**Skip juice and soda.** Sugary drinks—and yes, that includes fruit juice—are a major source of sugar in the typical American diet. Soda, sports drinks, energy drinks, and fruit drinks account for 36% of the added sugar we consume. And it's one of the easiest ones to fix. Iced herbal or fruit teas, sparkling water with a squeeze of fresh citrus, and infused water are all great, flavorful options.

### Go

**natural.** If you do find yourself craving sugar, choose natural treats like berries, Greek yogurt, dried fruit, and other healthful, naturally sweet whole foods that can give you a sugar fix without sidelining your health and weight goals.

### Phentrexan SF or XR to control appetite and control sweet cravings. [Purchase Here](#)

### To satisfy sweet cravings, 70% cocoa dark chocolate or fruit/berries

people found that those carrying one of two particular variants of the FGF21 gene were about 20 percent more likely to crave and consume sugary foods compared to those without that genetic makeup.

Interestingly, another study using health information on 450,000 people who have had their genomes sequenced and health and lifestyle information collected by UK Biobank reports that the same people who have the "sweet tooth" gene also appear to have naturally lower body fat, though when they do store fat it tends to be around their waists, which can have negative health consequences and is linked to heart disease and diabetes, rather than around their hips, where it presents less health risks.

Other research shows that people who are carriers of the Ile allele for GLUT2, a gene associated with glucose sensing in the brain, eat about 20 grams a day more sugar than those with other genetic variations of GLUT2. That's a lot considering the recommended daily limit for added sugars is 25 grams for women and 36 grams for men.

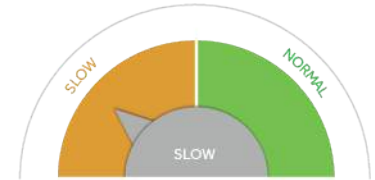
Our analysis investigated which genotype for these genes was present in your DNA. Your rating of **NORMAL** or **ABOVE AVERAGE** reflects whether your genotypes included those that carried the likelihood of having a greater craving and consumption of sugar and sweets.



## CAFFEINE METABOLISM

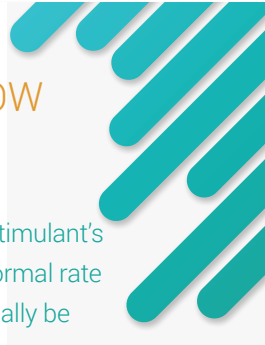
### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **SLOW** rate of caffeine metabolism. That means you do not have the liver enzymes to breakdown and metabolize caffeine at a normal rate, but rather it stays in your system for a prolonged period of time. Using caffeine before training or sporting events may not be beneficial for you, and caffeine may have detrimental effects on your health. It also puts you at risk for more serious side effects from the stimulant, including elevated blood pressure and heart attack risk.



Your genetic profile indicates that you are likely to have a **SLOW** rate of caffeine metabolism.

This means you are not likely to benefit from the stimulant's ergogenic benefits as much as someone with a normal rate of caffeine metabolism and caffeine use may actually be detrimental to your health.



Research dating back to the '70s has consistently shown that caffeine can improve sports performance, particularly endurance performance, where the average improvement in exercise trials is about 24 percent in time to exhaustion and 3.1 percent in time to completion. It may also improve muscle power and endurance for power and sprint-based sports.

Caffeine primarily interacts with adenosine, a chemical in your central nervous system that regulates sleeping and waking. As adenosine accumulates, it inhibits nerve activity and causes drowsiness. Caffeine essentially blocks adenosine, preventing your nerve activity from slowing down, which increases alertness and brain activity and reduces tiredness, which benefits all sports performance. It also increases circulating epinephrine, the hormone responsible for your fight or flight response, which helps you feel physically and mentally keyed up to perform.

Caffeine use, however, does not benefit everyone equally. In one study of 35 trained male cyclists, caffeine decreased time on a 40 km time trial by nearly 4 minutes in those who had a favorable caffeine-metabolizing

### RELATED GENES / SNPs

**AHR, RP11-10017.3-001, ARID3B, CYP1A1**

The genes and their associated SNPs that are included in this category have been shown to have significant associations with a person's ability to metabolize caffeine.

Caffeine is well known and widely used as a legal stimulant. On the endurance front, caffeine increases the body's ability to use stored fat as fuel, which spares limited muscle glycogen (stored carbohydrate) stores. It also increases beta-endorphins to enhance feelings of wellness while also lowering your perceived exertion, so hard efforts feel easier. However, not everyone responds equally...or favorably. Some people suffer from negative caffeine side effects after one ill-timed cup of coffee, while others can drink several cups a day and feel fine.

We now know this disparity is largely hereditary. Caffeine is rapidly absorbed into the bloodstream, with levels peaking after





## CAFFEINE METABOLISM

genotype, while those who were slow metabolizers improved their time by 1.3 minutes. Other exercise trials have reported that slow metabolizers saw no improvements, or in some case, had poorer outcomes than those of the same slow-metabolizing genotypes who didn't take caffeine.

More concerning is that caffeine can raise blood pressure and heart attack risk in slow caffeine metabolizers. Research published in the Journal of the American Medical Association (JAMA) has reported that for slow caffeine metabolizers, those who drank 2 to 3 cups of coffee a day had a 36 percent increased risk of heart attack, while those who drank 4 or more cups daily had a 64 percent increased risk.

As a slow caffeine metabolizer, you likely are already aware that you are sensitive to caffeine and are less likely to consume moderate to high amounts. If you choose to use caffeine as an ergogenic aid, keep the dose low—100 to 150 mg in the hours before training or competing—and be sure to keep tabs on your blood pressure if you use caffeine regularly.

**Phentralean XR includes caffeine to increase energy while controlling cravings. Non-stimulant Phentralean SF is the best recommendation if you have a SLOW rate of caffeine metabolism. [Purchase Here](#)**

about 90 minutes and starting to drop off after about 3 to 4 hours. Caffeine eventually gets broken down in the liver by enzymes (Cytochrome P450 1A2, or CYP1A2) that metabolize the chemical. Depending on your genetic makeup, you will be able to metabolize caffeine at a normal rate, or your rate may be significantly slower. One study of 9,876 individuals found that variants in several genes were associated with slow caffeine metabolism (which was also associated with lower coffee consumption, indicating that people generally self regulate).

Being a slow caffeine metabolizer means the caffeine stays in your system longer, which can have adverse effects such as increasing blood pressure and may increase the risk of heart attack. Slow metabolizers also do not enjoy the same level of ergogenic improvement as people who metabolize the drug normally.

Our analysis investigated which genotype for these genes was present in your DNA. Your rating of **NORMAL** or **SLOW** reflects whether your genotype included those that carried a risk of adverse side effects in response to caffeine use or whether you are likely to benefit from using caffeine as an ergogenic aid.

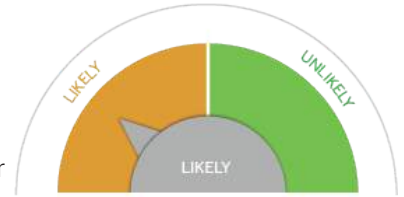


# FOOD SENSITIVITY

## BITTERNESS SENSITIVITY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits characteristics that make you **LIKELY** to taste the bitter compounds in foods, especially cruciferous vegetables like broccoli, kale, and Brussels sprouts. That makes you what scientists call a “super taster.” Research shows that people with your genotype eat significantly fewer vegetables than those who are less sensitive to bitter, even after health and nutrition interventions. A higher vegetable intake isn’t just good for your health, but also can help you lose and manage your weight. One 24-year prospective study found that intake of non-starchy vegetables, especially cruciferous veggies and leafy greens is inversely related to weight gain over time. That doesn’t mean you need to choke down foods you don’t like. But you can find ways to mask or minimize the bitterness in foods to make them more palatable to your taste buds and make it more enjoyable to get the recommended amounts of these healthful foods.



Your genetic profile indicates you are **LIKELY** to be a “super taster” and taste the bitter compounds in foods, especially cruciferous vegetables and dark leafy greens.

To eat and enjoy more vegetables, you'll want to find ways to mask and/or minimize the bitter taste in these foods.

### SUCCESS STRATEGIES

The USDA recommends that adults eat two to three cups of vegetables every day. A meager 9 percent of adults meet that recommendation. If you’re a super taster, you may be even less likely to meet that recommendation. Research shows that super tasters eat less vegetables overall while non-tasters eat the most.

As you know, vegetables are important for good health. A tall body of research has linked high vegetable intake with lower risk of heart disease, diabetes, some cancers, as well as weight gain. But it’s hard to eat your veggies if you think they taste disgusting, and people with your genotype often find cruciferous vegetables and bitter greens like cabbage, broccoli, Brussels sprouts, cauliflower, and dark leafy greens like kale just too bitter to choke down, let alone enjoy.

### RELATED GENES / SNPs

#### TAS2R38

The gene and associated SNPs included in this category have been shown to have significant associations with a person’s likelihood of being sensitive to bitter flavors and hence more likely to not like and/or consume many vegetables.

Research has found that certain people are genetically inclined to have variants of the taste receptor gene TAS2R38 that cause them to be so-called “super tasters,” meaning that they taste the bitter compounds in foods, especially glucosinolates found in dark leafy green and cruciferous vegetables like broccoli, kale, and Brussels sprouts more keenly, while others are essential “non-tasters,” meaning they do not or barely pick up the bitterness in foods.

Some of the variation in taste is due to the small bumps on the tongue called papillae,



# FOOD SENSITIVITY

## BITTERNESS SENSITIVITY

The good news is that there are cooking and serving strategies that can actually make these vegetables taste good to you. Here's what to try.

**Roast them.** Place those veggies in a pan, drizzle them with olive oil and balsamic vinegar, add a little salt and pepper and roast the bitterness out of them. Roasting or caramelizing vegetables converts more of the carbohydrates to sugars, which brings out their natural sweetness. Just stop the cooking process before they blacken, which can intensify some of the bitterness.

**Butter 'em up.** A little fat can help block the bitter compounds from binding to your bitter receptors. Fat also helps your body absorb the fat-soluble antioxidants found in many of these veggies. So don't be afraid to baste them with a bit of butter, olive oil, or a light layer of cheese sauce.

**Use bitter-blocking seasonings.** Various herbs and spices can help block or override the bitter taste in cruciferous veggies and leafy greens. A pinch of salt is one way. The heat in pepper and other hot spices like chili oil can distract you from the bitterness. Ginger, garlic, basil and vinegar can help override your bitter receptors by stimulating your other taste buds.

**Stock up on alternative veggies.** Remember, too, that there are many vegetables in the world and they're not all bitter. Stock up on peas, green and string beans, carrots, beets, zucchini, and sweeter varieties of lettuce to get your fill of healthful veggies without all the bitterness.

which house your taste buds. People with high sensitivity to bitter tastes have more than twice as many papillae as non-tasters. They also seem to have greater expression of bitter receptor messenger RNA.

If you're a super taster, you're likely to have an aversion to many vegetables, especially the ones rich in glucosinolates. In one study where researchers conducted a six-month dietary intervention designed to increase vegetable intake among a group of men and women, those with genotypes that related to low to non-bitter tasting increased their vegetable consumption more than those with the ability to perceive bitterness.

Another study found that people with the bitter tasting gene variant TAS2R38 ate about 200 fewer servings of vegetables a year than non-tasters. Super tasters may not only dramatically avoid vegetable consumption, but also choose more sweet and fatty foods instead.

Our analysis investigated which genotype for this gene was present in your DNA. Your rating of **LIKELY** or **UNLIKELY** reflects whether your genotypes included those that carried the likelihood of having a higher sensitivity to bitterness, and thereby a greater likelihood to have an aversion to vegetables.



## SUMMARY

### What nutrients do you need?

NUTRIENTS	TENDENCY	GOOD SOURCES INCLUDE
Vitamin A	BELOW AVERAGE	Carrots, Kale, Tuna
Vitamin B6	BELOW AVERAGE	Pistachios, Watermelon, Potatoes
Folate	LOW	Pinto Beans, Asparagus, Broccoli
Vitamin B12	NORMAL	Lean meat, Seafood, Fortified Dairy Product
Vitamin C	NORMAL	Red Bell Peppers, Strawberries, and Oranges
Vitamin D	LOW	Salmon, Egg Yolks, Fortified Dairy Milk

#### HOW DO MICRONUTRIENTS AFFECT MY BODY WEIGHT?

Micronutrients have not been shown to have a direct effect on body weight or body fat. So why are they included in this genetic analysis?

The vitamins tested play important roles in a variety of functions in the body that may affect your body weight—or your ability to manage it.

Many micronutrients are involved in the body's metabolism of fat, carbohydrates and protein. When you are eating and exercising, you want your metabolism to function smoothly. The body does find ways to cope when some nutrients are not available. But for optimum performance and energy, you'll do best when your body has all it needs to work properly.

Some nutrients such as vitamin C and vitamin D may not affect body weight directly, but they play a role in bone health, inflammation and healing. The stresses you put your body under when exercising may be bolstered if you are well nourished in these nutrients.

#### DO MY RESULTS SHOW THAT I AM LOW IN NUTRIENTS?

If you scored **LOW** or **BELOW AVERAGE**, your genotype results show that you may have a higher risk for having blood levels of certain nutrients that may be in the lower end of the normal range. For a few nutrients, such as vitamin B12, it may be optimal to be in the mid range of normal, or higher. This genotype risk assessment is based on studies where study participants with certain genotypes for the various nutrients tested were shown to be more likely to be in the lower end of the normal range for a nutrient.

Be careful of assuming these results indicate you are low, or deficient in a certain nutrient. The only way to know for sure if you are in the low end of the normal range for a nutrient, or if you are actually deficient, is to consult with your physician and get a specific blood test designed to assess a specific nutrient. This genetic test can only assess your risk; the blood test is what can assess your actual levels.



## SUMMARY

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### WHICH FOOD CHOICES FOR CERTAIN MACRONUTRIENTS ARE THE BEST FOR ME?

Our genetic testing analyzes your genotype and assesses your potential levels of macronutrients. This testing does not test your individual sensitivity or response to certain foods that may contain these macronutrients. You may have other individualized responses that are not detected in the genetic tests. For example, you may be allergic to the proteins in dairy foods. Or you may have a negative response to the lactose sugars in dairy products. This report cannot inform you about these reactions. Any food recommendations that are suggested to help you obtain certain nutrients should be modified based on other factors that you may already know about.

### HOW CAN I MONITOR MY NUTRIENT INTAKE?

Your body absorbs a certain amount of nutrient as food or supplements are digested. Then your body uses or stores the nutrient as needed. There are many factors that affect how much of a nutrient you take in, how much of a nutrient is absorbed and used by your body, and whether your body stores are in the normal range.

Your genotype for certain nutrients can indicate that you may be at risk for having lower levels of certain nutrients. But since the genotype analysis is not measuring what you eat, the supplements you take, or actually measuring levels in your blood or tissues, the genotype analysis alone cannot relate your true status.

People who are low or deficient in a nutrient may absorb more from food than someone who is not deficient. A person who needs more of a certain nutrient may absorb more of it from a food than someone who has normal levels. There are also other factors that can affect absorption positively or negatively, and that can affect how your body uses what you take in.

How do you know what your true nutritional status is? A blood test is generally the only way to truly test your true nutritional status. What is in the blood when tested may not always reflect what is in the tissues or how much is being used by the body. But at present, this is the measure used for most nutrients. There may also be different blood tests that monitor the same nutrient.

Keep these factors in mind as you interpret your genotype results and the suggestions given. No one result is going to give you all the information you need. But taken together, the results of your genotype analysis, along with a blood test can help you spot potential areas where you can optimize your nutrition.

### SHOULD YOU TAKE A SUPPLEMENT?

Most nutritionists recommend that nutrients be obtained first through food. Research studies have tended to show more favorable outcomes when research participants obtained nutrients from food sources rather than from supplements. Nutritional experts vary in their opinions about whether people should take supplements or not. **The best way to get the nutrients your body needs is to take supplements to support the foods you eat (Mutlivitamin, Super Food Green Drinks, Lipo Lean and Immune Booster). Supplementation is important because modern agricultural methods have stripped increasing amounts of nutrients from the soil in which the food we eat grows.**

Most supplements are considered safe. But be cautious with dosing because research on appropriate levels has identified ranges for some nutrients beyond which toxic effects can occur. These ranges are known as the Upper Intake Level, or UL. It is difficult to reach the UL by getting the nutrients from food, but it is easy to reach these high risk levels from supplementation.

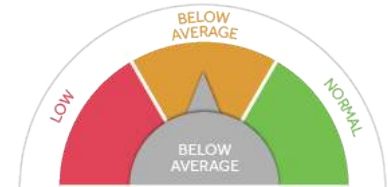
Also consult with your doctor if needed. Some supplements, including vitamin A and vitamin B6, can interact with medications you may be taking.



## VITAMIN A TENDENCY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **BELOW AVERAGE** ability to process Vitamin A from a beta-carotene supplement compared to others with a different genotype. Your score reflects the fact that, for the gene investigated, your genotype showed some of the allele combinations that resulted in less beta-carotene in supplement form being converted into Vitamin A as reflected in a blood test. This means that if you take high doses of a beta-carotene supplement, your ability to convert the nutrient into an active form of Vitamin A may be reduced compared to someone with a different genotype.



Your genetic profile indicates that your response is **BELOW AVERAGE**.

This suggests that your ability to convert high doses of beta-carotene from a supplement into an active form of Vitamin A may be reduced. You may want to get a blood test to assess your blood levels of Vitamin A, and, if your levels are low, then consume more beta-carotene and Vitamin A-rich foods, or possibly take low-dose supplements if you are deficient.



### RELATED GENES / SNPs

#### BCM01

The gene and its associated SNPs that are included in this category have been shown to have statistically significant associations with a person's blood levels of Vitamin A. Vitamin A promotes good vision, is involved in protein synthesis that affects skin and membrane tissues, and helps support reproduction and growth. The nutrient is found in plant foods in its precursor forms such as beta-carotene. Beta-carotene is converted by the body into different active forms of Vitamin A: retinol, retinal and retinoic acid. Animal foods, such as meat and dairy, provide the retinol form of Vitamin A.

It is rare to over-consume beta-carotene in plant foods to reach toxic levels. However, it is possible to consume toxic levels of Vitamin A from organ meats or fortified foods. Pregnant women are advised to eat liver no more than once every two weeks.

### SUCCESS STRATEGIES

- You may want to request a blood test assessing your levels of Vitamin A from your doctor.
- Vitamin A is needed for good vision. Needs may increase in women who are pregnant or lactating. If your levels are low or your body is deficient, vision and other aspects of health can be affected. You may want to increase your intake of beta-carotene and Vitamin A-rich foods, and perhaps take Vitamin A supplements.
- If you do take a supplement, make sure not to exceed recommended levels of supplemental beta-carotene or Vitamin A, as toxicity can occur.

**Use The Works Multivitamin to support your Vitamin A intake as well as whole body health. This is important for normal vision, the immune system, and reproduction. [Purchase Here](#)**



# NUTRIENTS

## VITAMIN A TENDENCY

- Be aware that some medications, alcohol or health conditions may interact with Vitamin A supplements and cause adverse effects. Discuss supplementation with your doctor.

Vitamin A in the form of beta-carotene is found in foods such as vegetables, especially leafy greens like spinach and orange foods such as carrots, sweet potatoes, apricots, mango and cantaloupe, as well as in the retinol form in dairy and in organ meats like liver.



### VITAMIN A-RICH FOODS TO INCLUDE IN YOUR DIET:

Broccoli, Swiss chard, collard greens, kale, carrots, butternut squash, apricots, goat's cheese, liver, tuna.

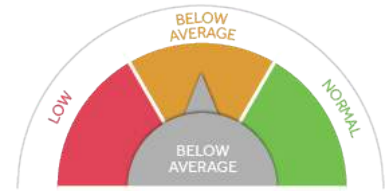




## VITAMIN B6 TENDENCY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile response is **BELOW AVERAGE**. Your score reflects the fact that your genotype showed an unfavorable allele combination. This means that there is a risk that your blood levels of Vitamin B6 may be slightly lower than normal. Keep in mind that increased risk does not mean that your blood levels are low. You can only know this by requesting a blood test from your physician or other healthcare provider.



Your genetic profile indicates that your response is **BELOW AVERAGE**

You may want to get a blood test to check your levels of Vitamin B6. Eat enough Vitamin B6-rich foods and consider supplementing if you are low.



### RELATED GENES / SNPs

#### NBPF3

The gene and its associated SNPs included in this category have been shown to have statistically significant associations with a person's blood levels of Vitamin B6. In one large study, people who carried the most unfavorable pairs of genes, or alleles had lower levels of Vitamin B6.

Vitamin B6 is important for nerve cell function, energy metabolism and the production of hormones, such as serotonin and epinephrine. Low levels of B6 are also linked to higher levels of homocysteine, which increases heart disease risk. B6 is found in many foods including grains, legumes, vegetables, milk, eggs, fish, lean meat and flour products.

### SUCCESS STRATEGIES

Since you are at risk for having lower levels of Vitamin B6 in your blood, make sure you get adequate amounts of this nutrient in your diet. Keep a food log using a dietary app to monitor how much Vitamin B6 you consume.

You may wish to ask your doctor for a blood test. If your blood tests show low levels, obtain more of this nutrient from foods or take a Vitamin B6 supplement. Be sure to avoid high doses of a supplement, as they can cause nerve damage. **Use methyl booster for overall health or Lipotropic Plus for supplementing B6. [Purchase Here](#)**



### VITAMIN B6-RICH FOODS TO INCLUDE IN YOUR DIET:

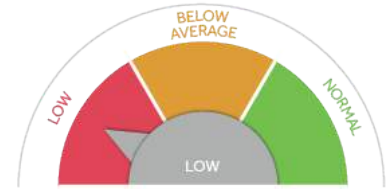
Broccoli, Swiss chard, collard greens, kale, carrots, butternut squash, apricots, goat's cheese, liver, tuna.



## VITAMIN B9 – FOLATE TENDENCY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic response is **LOW**. Your score reflects the fact that your genotype showed a higher risk allele combination. This means that your body may be at risk of having lower blood levels of folate. You may be at higher risk for anemia and for higher levels of homocysteine, which is a risk factor for heart disease.



### Your genetic profile indicates that your response is **LOW**.

This suggests that you may have a high risk of having lower blood levels of folate. Getting enough by eating extra whole plant foods at every meal and supplementing with folate if your levels are found to be low in a blood test may be beneficial. Getting folate, Vitamin B12 and homocysteine levels checked in a blood test regularly is recommended.



### RELATED GENES / SNPs

#### MTHFR

This gene and its associated SNPs have been shown to have significant associations with a person's folate, or vitamin B9, status. Folate plays many important roles in the body, including acting as a coenzyme in DNA creation and in energy metabolism reactions. Folate also plays a role in biochemical processes that affect the metabolism of an amino acid, homocysteine. One SNP associated with this gene is associated with enzyme activity that can lead to higher levels of homocysteine. Since homocysteine is a risk factor for heart disease, high levels may be of concern. In child-bearing women, getting sufficient amounts of folate is important because low levels can lead to neural tube birth defects. As a public health measure, grains are fortified with folate to ensure that women of childbearing age get enough. Low levels of folate can also lead to anemia.

In studies on this gene, people who carried the most unfavorable pairs of genes, or alleles, had only a 10%-20% efficiency

### SUCCESS STRATEGIES

- Since you appear to be at high risk to have lower levels of folate, it may be a good idea to get regular blood tests to check for anemia, as well as folate, Vitamin B12 and homocysteine status. Your genes only predict your risk, but a blood test can give you concrete information about your body levels of this nutrient.
- All women should ensure they get enough folate in their diet. Monitor your intake by keeping a food log using a dietary app. Because you are at risk of having lower levels, you may want to eat greater amounts of folate than the minimum recommended daily allowance. You will get folate that is added to whole grains in cereals and breads, but you should also eat food sources of folate. The foods highest in folate include legumes, fruits and vegetables, especially greens.
- Some of the folate in foods is lost with heat from cooking or oxidation during storage. To minimize potential losses, eat plant foods at every meal



## NUTRIENTS

# VITAMIN B9 – FOLATE TENDENCY

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at processing folate. And those with the below average allele had a 60% efficiency at processing folate. People with more of the unfavorable alleles are more likely to have high homocysteine and low Vitamin B12 levels. Poor ability to process folate may be fairly common: Around 53% of women appear to have these unfavorable genotypes.

to make sure you get enough, eat fresh produce quickly after purchase, and incorporate some raw plant foods into your meals.

- You can also supplement your diet with folate. However, since low levels of Vitamin B12 can mask anemia if folate is taken, it is a good idea to supplement with both folate and Vitamin B12. **Supplement B9 using The Works Multivitamin or Lipotropic Plus. These products include folate, which will aid in digestion, mental capacity, and overall well-being. [Purchase Here](#)**
- Smoking can also decrease folate levels. You may need to consume more if you smoke – or better yet, quit smoking!



### FOLATE-RICH FOODS TO INCLUDE IN YOUR DIET:

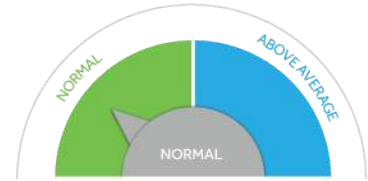
Lentils, pinto beans, asparagus and broccoli are excellent sources of folate.



## VITAMIN B12 TENDENCY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile is **NORMAL**. Your score reflects the fact that your genotype showed few, if any, of the unfavorable allele combinations. This suggests that, as long as you consume a healthy diet that includes Vitamin B12, you are likely to have normal blood levels of vitamin B12. Keep in mind, however, that vitamin B12 deficiencies can develop with some health conditions. Also, aging can result in poorer absorption of vitamin B12 from foods.



Your genetic profile indicates that your response is **NORMAL**.

This suggests that your blood levels of Vitamin B12 are likely to be normal.



If you follow a plant-based vegan diet that does not include fortified foods, levels also can become low.

### SUCCESS STRATEGIES

Getting a nutrient analysis of what you eat can give you an indication of how much of a nutrient you are consuming. Do periodic checks of your estimated vitamin B12 intake with a food log using a dietary app.

To assess how well nutrients in your foods are absorbed, it is a good idea to get periodic testing of your blood levels of vitamin B12. If absorption is impaired, your blood levels may be low and you may wish to supplement with B12. **Lipotropic Plus helps stimulate the breakdown of fat (lipids) during metabolism and includes B-12 to boost energy. Purchase Here**

### RELATED GENES / SNPs

#### FUT2

The gene and associated SNPs included in this category have been shown to have significant associations with a person's blood levels of Vitamin B12. In one large study, those women who carried the most unfavorable pairs of genes, or alleles, had slightly lower levels of Vitamin B12 compared to others with more favorable genotypes. However, they were not deficient: their levels were still in the normal range, just on the low end. Around 70% of people have genotypes that suggest they may be at risk for having blood levels of B12 that are at the lower end of the normal range. There are several reasons why blood levels of B12 can be low. Some people do not get enough in their diet and so they are simply not getting enough of the nutrient. Some other people get enough, but do not absorb it efficiently. A small percentage of people over 50 or those who have had gastrointestinal surgery or GI disorders such as Crohn's disease may also have reduced abilities to absorb it.



### VITAMIN B12-RICH FOODS TO INCLUDE IN YOUR DIET:

Lean meat, seafood, dairy products, eggs, fortified breakfast cereals, certain brands of fortified nutritional yeast.



## NUTRIENTS

### VITAMIN B12 TENDENCY

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Research also indicates that around 30% of people have genotypes that suggest they may be predisposed to having higher than normal levels of vitamin B12. Their levels are not excessive, just on the high end of the normal range.

Vitamin B12 is important for many processes in the body, including red blood cell formation, neurological function and cognitive performance. Deficiencies of B12 can cause pernicious anemia, and is also associated with high levels of homocysteine, which may impair arteries and increase risk of heart disease. There is some evidence that subclinical symptoms may be associated with being in the low end of the normal range.

Vitamin B12 is produced by microorganisms found in soil and water, and in both the guts of animals and humans. In the modern world, highly-sanitized food processing systems have eliminated many naturally occurring sources of Vitamin B12-providing bacteria in plant products. Vitamin B12 is typically obtained from animal foods such as meat, or fortified foods such as dairy and plant milks. Certain mushrooms and seaweed may provide some Vitamin B12, but are not considered to be reliable sources.



# NUTRIENTS

## VITAMIN C TENDENCY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile suggests that you are likely to have **NORMAL** levels of Vitamin C. Your score reflects the fact that for the gene investigated, your genotype did not show the unfavorable allele combinations. This means that if you consume enough Vitamin C in the foods you eat, blood levels of L-ascorbic acid should be in the normal range. If you smoke, however, you may deplete some of your Vitamin C and may need more.



Your genetic profile indicates that your response is **NORMAL**.

If you eat enough Vitamin C-rich foods, you should have normal levels in your blood.



### SUCCESS STRATEGIES

- To ensure your body gets the Vitamin C it needs, make sure to include a wide variety of plant foods, including citrus in your diet.
- If you wish to supplement with Vitamin C, avoid very high doses because they can cause diarrhea and gastrointestinal distress. **Utilize supplements such as Immune Charger or The Works Multivitamin to increase Vitamin C intake and support the body's defenses. Purchase**



### VITAMIN C-RICH FOODS TO INCLUDE IN YOUR DIET:

Broccoli, red bell peppers, kiwi fruit, Brussels sprouts, strawberries, oranges, watermelon, pinto beans.

### RELATED GENES / SNPs

#### SLC23A1

The gene and associated SNP included in this category has been shown to have statistically significant associations with a person's blood levels of L-ascorbic acid, or Vitamin C. Those people who carried more unfavorable pairs of genes, or alleles, were more likely to have lower blood levels of the nutrient.

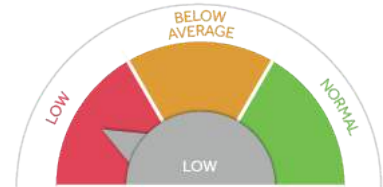
Vitamin C is a nutrient that has many functions in the body, including acting as an antioxidant, and is needed for skin and membrane tissues. Low levels have also been associated with diseases such as heart disease and cancer. Vitamin C also helps with the absorption of iron. The nutrient must be obtained from foods since the human body cannot make its own, as some other animals can. Vitamin C can be found in citrus fruits, but is also in many fruits, vegetables and legumes.



## VITAMIN D TENDENCY

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic response is **LOW**. Your score reflects the fact that for the genes investigated, your genotype showed many of the unfavorable allele combinations that increase your risk of having extremely low levels of Vitamin D. This does not mean you definitely are deficient. But you should speak to your doctor and get tested to monitor your status. If you get inadequate sun exposure, take in small amounts through natural or fortified foods, or have trouble with absorption of the Vitamin D you do get from foods, you could be at greater risk of being low.



Your genetic profile indicates that your response is **LOW**,

so your levels of Vitamin D may be extremely low or even deficient. Get your blood tested for Vitamin D on a regular basis. Increase your sun exposure and add more Vitamin D-rich foods or supplements, if your levels are low.



### RELATED GENES / SNPs

**GC, NADSYN1, CYP2R1**

The genes and their associated SNPs that are included in this category have been shown to have statistically significant associations with a person's blood levels of Vitamin D (which is actually a hormone). One study found that several SNPs linked to low levels of Vitamin D were from genes that may play a role in the Vitamin D conversion and delivery process. Those people who carried unfavorable pairs of genes, or alleles, had a higher risk of low levels of Vitamin D, and those who carried several unfavorable SNPs had a much higher chance of being deficient in Vitamin D.

Vitamin D has been proven in research to be crucial for bone health. Low levels of Vitamin D have been associated with a variety of health conditions, including heart disease, diabetes, depression and cancer.

### SUCCESS STRATEGIES

Get tested regularly since you are at high risk of having low levels of Vitamin D.

- Getting outside on most days of the week for a few minutes is crucial to generate your body's production of Vitamin D. Most people do not get Vitamin D through food; sunlight is considered to be the best source.
- Expose yourself to the sun on most days of the week for at least 10 to 15 minutes (30 to 50 minutes if you have naturally dark skin). Spend more time outdoors in winter months, or if you live in northern latitudes
- **Utilize supplements such as Immune Charger or The Works Multivitamin to increase Vitamin D intake and support the body's defenses. [Purchase Here](#)**





# NUTRIENTS

## VITAMIN D TENDENCY

- Sunscreen can block the rays that trigger your Vitamin D production. Spending a short amount of time outside without wearing sunscreen may be beneficial. If you have any doubts, discuss the best approach with a dermatologist.
- If you are deficient in Vitamin D, do a nutrient analysis to determine how much Vitamin D you consume, then eat more foods that contain Vitamin D, including natural foods or fortified foods, or take a supplement.
- If you take a Vitamin D supplement, avoid overly-high doses, unless by prescription through your doctor, as they may cause adverse effects.



### VITAMIN D-RICH FOODS TO INCLUDE IN YOUR DIET:

Salmon, mackerel, sardines, egg yolks, fortified almond, soy or other plant milk, fortified dairy milk.

A blood test from your doctor can determine your blood levels of Vitamin D. Vitamin D is primarily produced by the body from exposure to ultraviolet rays from sunlight, and this is considered to be the optimal source since Vitamin D generated by the body lasts longer in the body than Vitamin D taken in supplement form. Your levels are likely to be higher if you live in the southern latitudes and during the summer. However, it is not uncommon for people with lots of exposure to the sun to still have low levels of Vitamin D. In general, only 10 to 15 minutes of sun exposure to bare skin per day during the summer months is needed for a Caucasian to produce the Vitamin D he or she needs. Darker skinned people will need to spend 2-5 times more time in the sun. Since Vitamin D is stored in the body, stores can be built up during warmer months and may compensate for less sun exposure during winter months.

Vitamin D can be obtained through foods such as oily fish and egg yolks, as well as fortified dairy and plant milks, and fortified cereals. Vitamin D can also be taken in supplements. If you test low and choose to take a Vitamin D supplement, be careful of taking higher doses because there can be adverse effects.



## SUMMARY

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# How much should I exercise?

Your body weight and body fat levels are the direct result of how much you eat as well as how much and how you move. Certain genes can play a role in your response to what you eat and how you exercise.

Traditionally, most people focus on dieting to lose weight, but exercise is a key part of losing weight effectively and it's been proven in research to be crucial for keeping the weight you lose off.

There are two major things you should know about exercising to lose weight:

1. Any regular exercise can enhance weight loss from dieting. If you have a certain genotype, you may experience a greater or lesser response compared to others, but your response still depends on the type and amount of exercise that you do. For weight loss and fat loss, the more calories you burn through exercise, the better your results will be.

Achieve a greater calorie burn by focusing on cardio exercise such as walking, running, cycling or cardio machines. When you move, you can increase your calorie burn in one of two ways. You can exercise harder at a higher intensity, or you can keep your intensity easier and exercise at a moderate pace, but for longer sessions. We'll explain how to monitor and manipulate your intensity in greater detail later in your report.

2. Muscle matters, too. It keeps you strong, it helps your body stay firm and shapely. You may have a certain genotype that makes you more or less muscular, or that makes you more or less strong, but your muscle response to both dieting and exercise will still be affected by the type and amount of exercise that you do.

When you are dieting, it is very important to include exercise that helps to strengthen muscle. When a person loses weight by only dieting and not exercising, they are likely to lose more muscle mass along with the pounds of fat that are lost. If you exercise, especially if you do resistance training (lift weights), you can prevent or minimize the loss of muscle mass that can occur with weight loss.

3. **Suggested Support Supplements:**

**Muscle Balance**

**Phentralean XR (stimulant)**

**Lipotropic Plus**

**Isolate Whey Protein**

**The Works Multivitamin**

**[Purchase Here](#)**

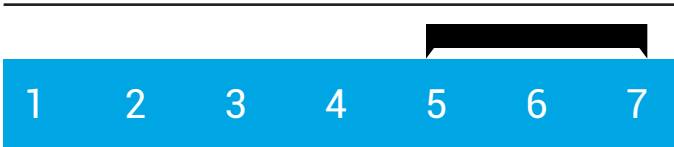


# EXERCISE

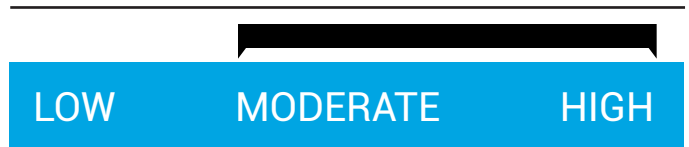
## SUMMARY

### CARDIO EXERCISE

#### FREQUENCY (days per week)



#### INTENSITY



#### DURATION (minutes per week)



Do cardio for at least 300 to 400 min on at least-5 days or more per week at a moderate-to-vigorous intensity. You can experience greater results by exercising more and/or harder. Do cardio for at least 300 to 400 min on at least-5 days or more per week at a moderate-to-vigorous intensity. You can experience greater results by exercising more and/or harder.

### STRENGTH TRAINING



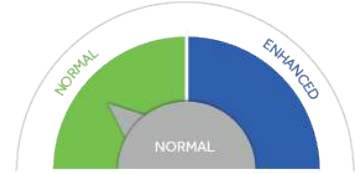
Lift weights 4 days per week using weights that are heavy enough to challenge you at the end of each of 3 sets of 15-20 reps. Include at least one day of power training, doing 1 to 3 sets of 5 to 8 reps with significantly heavier weight. If by the end of each set of repetitions, you feel like you could keep performing the exercise, the weight you are using is too light to provide a sufficient muscle-strengthening stimulus. As you near the end of the exercise, you should feel like the last 2 to 3 reps are difficult to complete while maintaining good form.



## FAT LOSS RESPONSE TO CARDIO

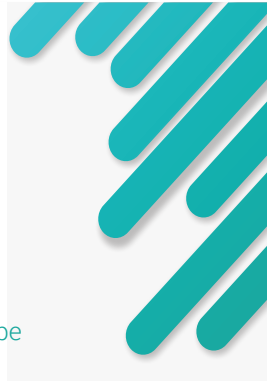
### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **NORMAL** fat loss response to cardio. Not everyone loses the same amount of body fat when they embark upon an exercise program. Genetic predisposition plays a role, but other factors also affect how much fat you lose. Your outcome of "normal" suggests you are inclined to begin to utilize fat as an energy source at an average rate compared to other genotype.



Your genetic profile indicates that your fat loss response to cardio is **NORMAL**.

You should experience fat loss when performing cardio 4-6 times per week for a total of 250-350 minutes per week. Some carriers of this genotype also experience greater benefits by doing more: so try making each session longer, exercising at a higher intensity and aim for at least 5 days a week to improve your results.



### RELATED GENES / SNPs

**ADRB2, LPL**

The genes and their associated SNPs that are included in this category have been shown in a study to have significant associations with a person's ability to lose fat from a regular program of 3 days per week of cardio exercise. A large study investigating these genes put sedentary men and women on a 20-week cardio exercise program. The study volunteers exercised on a bike 3 times per week, starting at a moderate intensity for 30 minutes per session over the first few weeks. They built up to a longer, slightly harder workout that lasted 50 minutes for the last 6 of the 20 weeks.

Men in the study did not appear to have a different response based on their genotype. Women's fat loss was influenced by genotype, however. Women who carried the most 'favorable' genotypes lost slightly more fat in response to a cardio exercise program than those who did not carry these 'favorable' genotypes.

### SUCCESS STRATEGIES

Your genetic profile predicts that you may not lose as much fat as someone with a more favorable genotype from doing cardio exercise 3 days per week while working out at a moderate-to-high intensity. However, official exercise recommendations suggest that this is not enough exercise for most people who wish to manage their body weight.

- For you, 3 days of exercise per week may or may not be enough to experience optimal fat and weight loss results. You may get results from more exercise because you will burn more calories. Aim to get at least 4 to 6 days per week of cardio exercise for a total of 250 to 350 minutes per week.

- Include muscle-strengthening exercises 4+ days per week.in morning to enhance cardio

- **Lipotropic Plus helps stimulate the breakdown of fat during metabolism. It also works to reduce excess fat in the liver and other tissues.**

[Purchase Here](#)



## EXERCISE

# FAT LOSS RESPONSE TO CARDIO

- Begin your cardiovascular exercise session in a semi-fasted state; First thing in the morning or 3-5 hours since your last meal/caloric drink.
- You may benefit from the increased calorie burn of resistance interval training, where you alternate high-intensity resistance training exercises followed by low-to-moderate cardio intervals. Warmup with light cardio movement such as marching in place or a brisk walk for 10 minutes, then do a one minute burst of resistance activity—squats while holding moderately heavy weights, for example. Then follow that burst with another 3 to 5 minutes of easy cardio movements such as stepping up and down off a step, and repeat the sequence.

See [What You Should Know About Exercise](#) and find ideas on how to experience greater fat loss in the Exercise section of this portal.

- While it is possible to lose fat and weight from exercise alone, you will experience faster fat loss if you focus on sticking to a reduced-calorie diet, in addition to exercise. Follow the tips from the analysis of your Weight

Our genetic analysis investigated which genotype for each of these genes was present in your DNA. Your rating of either **NORMAL** or **ENHANCED** reflects whether your genotypes included those that carried an enhanced fat loss response from a regular program of cardio exercise.



## FITNESS RESPONSE TO CARDIO

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **BELOW AVERAGE** fitness response to high-intensity exercise. Your score reflects the fact that your genotype showed the 'unfavorable' gene combinations. This means you have the potential to not see the same improvements in fitness from high-intensity cardio workouts as someone else with a more favorable genotype would. The good news is that you might be able to attain the same cardiovascular benefits by working at lower intensities.



Your genetic profile indicates that your fitness response to moderate-to-high-intensity cardio is **BELOW AVERAGE**.

You may be less likely to experience optimal cardiovascular fitness improvements from high-intensity cardio compared to others with a more favorable genotype. This does not mean that you will not improve your fitness. You can. But you will likely see greater gains from longer, moderate-intensity workouts. Or you may benefit from endurance-based resistance workouts such as circuit training and power training.



### RELATED GENES / SNPs

#### AMPD1, APOE

The genes and associated SNPs included in this category have been shown to have significant associations with a person's response to moderate-to-high intensity exercise.

Many factors play roles in being able to push hard without feeling overly fatigued when exercising. One reflection of fitness is oxygen capacity, also known as VO2 Max. As a person becomes fitter, their ability to take in more oxygen improves, which helps them to work out harder and longer. The greater one's VO2 Max, the more exercise they can handle since they can take in more oxygen that working muscles need during intense physical activity.

Several large studies investigating these genes had sedentary men and women do cardio exercise 3 to 4 days per week for 5 to 6 months. They used a variety of cardio machines (bike, treadmill, rowing machine, step-climber, etc.) for up to 50 minutes.

### SUCCESS STRATEGIES

Your genotype suggests you might benefit most from sticking to moderate intensity workouts. Therefore, you might see better fitness results from longer endurance workouts.

Aim for more moderate-intensity cardio workouts on four or more days per week that last longer over time. Start with 20 to 30 minute sessions and work up to 60 to 90 minutes. You may want to consider training for an endurance event like a charity bike race or a 10K, half-marathon, or even a full marathon.



## EXERCISE

# FITNESS RESPONSE TO CARDIO

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Those people with the 'unfavorable' genotype experienced smaller gains in their cardiovascular fitness from the training. They seemed to show a decreased ability to perform at higher effort levels, suggesting their optimal fitness response may be better achieved at a lower intensity of exercise.

Our analysis investigated which genotype for these genes was present in your DNA. Your rating of either **NORMAL**, **BELOW AVERAGE** OR **LOW** reflects whether your genotypes included those that carried a risk of reduced cardiovascular fitness response from moderate-to-higher intensity exercise.



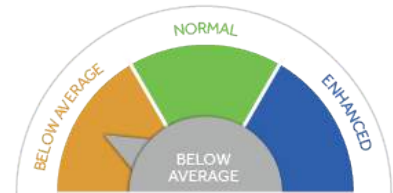


# EXERCISE

## BODY COMPOSITION RESPONSE TO STRENGTH TRAINING

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **BELOW AVERAGE** body composition response to muscle-strengthening exercise compared to others with a more favorable genotype. This means that you are likely to experience a reduced ability to lose weight and to decrease your body fat from weight training alone.



Resistance training does not typically burn enough calories to cause clinically significant weight loss or fat loss. If muscle mass is increased by the use of heavy weights and eating enough to fuel the growth of new muscle tissue, body composition can be changed to increase the percentage of muscle compared to the percentage of body fat. But for weight loss, you may experience better results from incorporating more cardio exercise, which does typically result in weight loss and/or fat loss. Follow the success strategies to get the most out of your exercise efforts.

Your genetic profile indicates that your body composition response to strength training is **BELOW AVERAGE**,

compared to others with a more favorable genotype. While you are likely to see improvements in strength and muscle tone, you may see smaller effects from strength training on your body weight and body fat. For optimal weight and fat loss results, implement an interval-style strength training program, using enough weight resistance that you are muscularly fatigued around 15-20 repetitions, without resting between sets, include cardio on most days of the week, and stick to a healthy, lower-calorie diet.



### RELATED GENES / SNPs

NRXN3, GNPDA2, LRRN6C, PRKD1, GPRC5B, SLC39A8, FTO, FLJ35779, MAP2K5, QPCTL-GIPR, NEGR1, LRP1B, MTCH2, MTIF3, RPL27A, SEC16B, FAIM2, FANCL, ETV5, TFAP2B

The genes and their associated SNPs that are included in this category all have been shown to have significant associations with a person's ability to improve their body composition and decrease their body fat percentage from resistance exercise. Resistance training, or weight training, improves strength and the amount of muscle a person has. Weight training can also reduce the percentage, and sometimes amounts, of body fat. An improved body composition, which is a higher proportion of muscle to body fat, contributes to a leaner look and, potentially, a greater number of calories burned each day.

### SUCCESS STRATEGIES

Although resistance training does improve strength and the amount of muscle mass a person has, it does not typically burn enough calories to cause clinically significant weight loss or fat loss percentage unless it is done in an interval style. For example, do an upper body exercise such as a chest/pectoral muscle exercise followed by a lower body exercise such as squats, followed by another upper body exercise, back to another lower body



## EXERCISE

# BODY COMPOSITION RESPONSE TO STRENGTH TRAINING

exercise, without taking rest time between sets. Heart rate will be elevated by having to move the blood volume from the upper body to the lower body and back to upper body, etc, in order to provide oxygen to the working muscle groups, as well as increasing caloric burn... For optimal body composition with less body fat, you should include 200 to 300 minutes of cardio on most days of the week and adhere to a healthy, reduced-calorie diet.

For optimal results from resistance training, it is important to provide your muscles with a sufficient stimulus that they are pushed to change. Many women, especially, do not lift heavy enough weight to either build muscle or get stronger. Make sure that you feel challenged by the last few reps of every set of an exercise that you do.

Implement interval-style strength training

- You may also benefit from trying different forms of resistance training. Barbell-type workouts that focus on challenging weights with high reps may produce a greater calorie burn that results in more fat loss. Kettlebell workouts may provide a more endurance-based approach that leads to a greater calorie burn.
- Include at least one day of power training with significantly heavier weight. Power training entails doing fewer repetitions of heavier weights. Instead of doing 3 sets of 8 to 15 repetitions, you might choose a heavier weight and do 1 to 3 sets of 5 to 8 reps with 2 to 3 minutes of rest in between sets. If you participate in power training, build up a base level of strength following a traditional resistance-training program for at least 6 to 8 weeks before you start power training. Give yourself 2 to 3 days of recovery between power training sessions.
- Make sure to stick to a healthy, reduced-calorie diet for optimal fat loss.
- **Muscle Balance and Isolate Whey Protein for protein supplementation. Helps to maintain healthy muscle and muscle tone when exercising. [Purchase Here](#)**

Although resistance training alone has not been shown to produce clinically significant weight loss (because weights workouts do not burn as many calories as cardio), people with the more 'favorable' genotype in a large study experienced an improved ability to lose weight and reduce their body fat percentage with resistance training. Those with the 'unfavorable' genotypes showed a decreased ability to lose weight and reduce body fat percentage from resistance training. When you are trying to lose weight, it is very important to include resistance training in your routine. Resistance training can minimize or prevent that loss of muscle mass that occurs with weight loss when you are dieting.

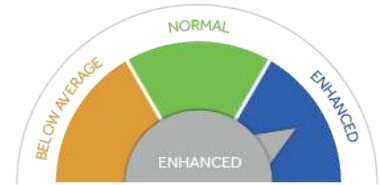
Our analysis investigated which genotype for these genes was present in your DNA. Your rating of either **ENHANCED**, **NORMAL** or **BELOW AVERAGE** reflects whether your genotypes included those that carried a risk of an enhanced or reduced body composition response to strength training.



## HDL RESPONSE TO CARDIO

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits an **ENHANCED** HDL response to cardio exercise. Your score reflects the fact that your genotype showed the 'favorable' gene combinations. This suggests that you are likely to experience a substantial beneficial boost to your HDL levels from a regular cardio exercise program.



Your genetic profile indicates that your HDL response to cardio is **ENHANCED**.

For optimal results, do cardio five or more days per week.



### RELATED GENES / SNPs

#### APOE

The gene and associated SNPs included in this category have been shown to have significant associations with a person's HDL cholesterol response to cardio exercise. HDL is a protein particle in the blood that carries cholesterol to the liver, helping to clear it from the blood. Excess cholesterol lingering in the blood can contribute to plaque that causes heart disease. So having higher levels of HDL is beneficial—which is why it's considered "good" cholesterol. Even one session of cardio exercise can boost HDL, and regular exercisers tend to have higher HDL.

This gene plays a role in the HDL response to cardio. One large study had men and women exercise for 30 to 50 minutes, 3 times a week for 5 months. Those people with the more "favorable" genotype experienced greater than average boosts to their HDL levels. Those with the 'unfavorable' genotype showed a decreased response: smaller increases in HDL.

### SUCCESS STRATEGIES

Your genotype suggests that you can successfully raise your HDL levels with regular cardio. To obtain this benefit, the key is consistency. Every workout you do will boost HDL levels, but to maintain the effect you need to exercise on a regular basis.

- Higher intensities may give you a greater boost. Aim to push past your comfort zone by moving a little harder or faster during your cardio workouts.
- What you eat is crucial to help normalize all of your cholesterol levels. A diet high in fiber-filled plant foods and low in saturated animal fats will help lower your total cholesterol, LDL cholesterol and triglyceride values.
- **Glucose Stabilizer works to promote glucose and carbohydrate absorption, which aids in muscle recovery post-exercise.**

[Purchase Here](#)



## EXERCISE

# HDL RESPONSE TO CARDIO

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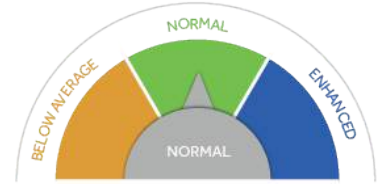
Our analysis investigated which genotype for this gene was present in your DNA. Your rating of either **ENHANCED**, **NORMAL** or **BELOW AVERAGE** reflects whether your genotypes included those that carried a risk of an enhanced or reduced HDL response to cardio exercise.



## INSULIN SENSITIVITY RESPONSE TO CARDIO

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **NORMAL** insulin sensitivity to cardio exercise. Your score reflects the fact that your genotype showed some of the 'unfavorable' gene combinations. This means that, while you may see improvements in insulin sensitivity from cardio, they are more likely to be small. But you should be able to improve your insulin response with workouts that are done more often and at a higher intensity.



Your genetic profile indicates that your insulin sensitivity response to cardio is **NORMAL**

Your improvement from 3 days a week of cardio exercise is likely to be small. You can maximize the effects by working out more often. Aim to exercise most days of the week and include both resistance training and higher-intensity cardio work during your workouts.



### RELATED GENES / SNPs

#### LIPC

The gene and associated SNPs included in this category have been shown to have significant associations with a person's insulin sensitivity in response to cardio exercise. Insulin is a hormone that plays a crucial role in delivering glucose, a form of sugar, in the blood to cells in the body that use it for energy. In a healthy person, cells are sensitive to this action of insulin and blood glucose levels are kept in their optimal range. If insulin sensitivity declines, a person may become insulin resistant. This keeps blood glucose levels high and diabetes can develop.

Even one session of exercise can improve insulin sensitivity. Exercise also helps keep blood glucose levels low because exercising muscles can absorb glucose without needing insulin to do so. Exercise over time can prevent diabetes—and it can help those who already have it.

### SUCCESS STRATEGIES

- Exercise frequently. The effects of exercise on glucose uptake are short-lived and the effects of a workout may wear off within two days of your last workout. Once or twice-a-week workouts aren't enough to reap this benefit from exercise. Do cardio on at least four to five days per week, but preferably on most, or all, days of the week for optimal results.
- The more in shape you are, the better your insulin response will be. That means if you stick to regular cardio exercise, you will fine tune your body's response and are likely to see long term improvements over time. It's important to identify habits you can adopt that help you to stick to your weekly workouts. Identify triggers that cause you to skip workouts and figure out how to overcome these obstacles.
- **Supplement Glucose Stabilizer to increase glucose absorption for your body to use as fuel. [Purchase Here](#)**



## EXERCISE

# INSULIN SENSITIVITY RESPONSE TO CARDIO

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- Resistance training has been shown to improve insulin sensitivity. Include some form of resistance training two to three times per week, targeting all the major muscle groups as part of your weekly routine.
- Weight and/or fat loss from exercise can also enhance insulin sensitivity. Follow the nutrition suggestions in the other areas of this report and enhance weight loss from exercise by getting at least 200 to 300 minutes of moderate-to-high intensity cardio exercise per week.

This gene seems to play a role in the insulin sensitivity response to cardio. One large study had men and women perform cardio exercise at a moderate- to- high intensity for 30 to 50 minutes, 3 times a week.

Those people with the more 'favorable' genotype experienced greater than average improvements in their insulin sensitivity.

Those with the 'unfavorable' genotype were less likely to improve their insulin sensitivity by exercise.

Our analysis investigated which genotype for this gene was present in your DNA. Your rating of either **ENHANCED**, **NORMAL** or **BELOW AVERAGE** reflects whether your genotypes included those that carried a risk of an enhanced or reduced insulin sensitivity response to cardio exercise.

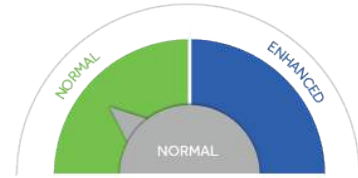


# EXERCISE

## GLUCOSE RESPONSE TO CARDIO

### WHAT YOUR GENES SAY ABOUT YOU:

Our analysis indicates that your genetic profile exhibits a **NORMAL** glucose response to cardio exercise. Your score reflects the fact that your genotype showed the 'unfavorable' gene combinations. This means that you are likely to experience smaller decreases in glucose from doing cardio exercise at least 2 to 3 times per week.



Your genetic profile indicates that your glucose response to cardio is **NORMAL**.

You are likely to experience minimal decreases in blood glucose from cardio exercise. However, you can boost your response by exercising 4 or more days per week, by working out at higher intensities and by adding resistance training to your routine.



### RELATED GENES / SNPs

#### PPARG

The gene and associated SNPs included in this category have been shown to have significant associations with a person's glucose response to cardio exercise. Glucose is one of the body's main sources of energy and it comes from the breakdown of carbohydrates in the diet. Brain and nerve cells, as well as red blood cells, exclusively use glucose for energy. That's why blood glucose is maintained at constant levels—so that all the cells in the body that need it can access it. If blood glucose levels rise and stay high, eventually insulin resistance and diabetes can develop. Exercise helps regulate blood glucose levels because every session of exercise uses glucose in the muscle for energy, and the blood glucose supply is then tapped into to replenish the muscle reserves.

### SUCCESS STRATEGIES

Increasing the amount and intensity of exercise you do will help to improve your glucose regulation. Perform cardio on five or more days a week.

And rather than just performing moderate-intensity workouts, after you are fit enough to push a little harder, include more high-intensity minutes into your cardio workouts. Aim to work at an intensity level that leaves you slightly breathless and that feels 'hard.' After a few minutes, recover by continuing to move at an easier pace. Then pick up the intensity for a harder interval, again followed by an easier recovery interval.

- Incorporate resistance training to enhance your blood glucose response.
- **Take Glucose Stabilizer to enhance glucose absorption [Purchase Here](#)**





## EXERCISE

# GLUCOSE RESPONSE TO CARDIO

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- What you eat also affects your blood glucose level. Increase the amount of fiber you eat by eating more whole plant foods at every meal. But make sure that these foods are unprocessed so that you obtain more nutrients and experience a lower glycemic response from the food.

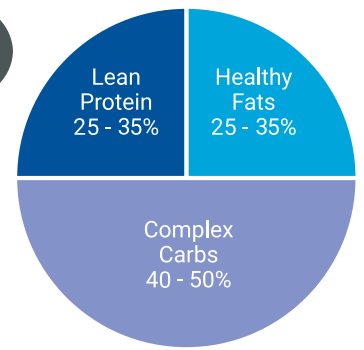
This gene seems to play a role in the glucose response to cardio and appears to be a reliable indicator of whether exercise will have beneficial effects on insulin resistance. Several studies involved a variety of individuals, both diabetics and non-diabetics, performing regular cardio for 2 to 3 days per week for up to 5 months. Those people with the more 'favorable' genotype experienced greater-than-average clearance of blood glucose. Those with the 'unfavorable' genotype showed a decreased response, or smaller drop in glucose levels. People with this genotype also had a decreased weight-loss ability—they loss less weight compared to people with different genotypes.

Our analysis investigated which genotype for this gene was present in your DNA. Your rating of either **ENHANCED** or **NORMAL** reflects whether your genotypes included those that carried a risk of an enhanced or reduced glucose response to cardio exercise.



# CUSTOM MEAL PLAN

## A MEAL PLAN GENETICALLY DESIGNED JUST FOR YOU



The following custom meal plan was created by combining a variety of healthy recipes with the appropriate macronutrient percentages for your genetic profile. Due to the nature of recipe sizes, the total suggested calories for each day will have some variation above or below the specific number of calories recommended for your diet, but the average daily calories for the week will approximate your suggested daily caloric intake.

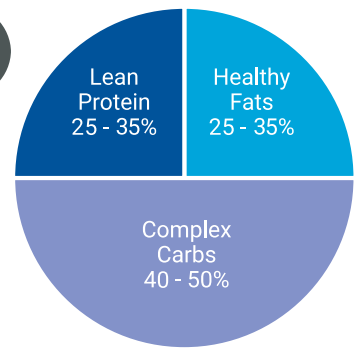
### Day 1

BREAKFAST	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Sausage and cheese breakfast cups	1	serving	11g	10g	5g	151
Raspberries	2	cup	3g	2g	29g	128
LUNCH	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Sweet potato, kale, and shrimp skillet	1 1/2	serving	29g	13g	35g	362
Baked yellow squash	1 1/4	halve	2g	3g	8g	61
DINNER	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Easy baked fish	1	serving	34g	11g	14g	302
Steamed green beans	1 1/2	serving	3g	5g	12g	91
SNACK	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Tangerines	3	medium (2-1/2" dia)	2g	820mg	35g	140
Beverages, protein powder whey based	0.165	cup	13g	250mg	1g	56
<b>DAY 1 TOTALS</b>			<b>96g</b>	<b>45g</b>	<b>139g</b>	<b>1291</b>



# CUSTOM MEAL PLAN

## A MEAL PLAN GENETICALLY DESIGNED JUST FOR YOU



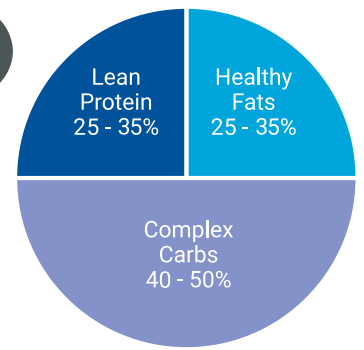
### Day 2

BREAKFAST	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Cinnamon apple oatmeal	1	serving	11g	7g	51g	296
LUNCH	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Chicken burrito bowl	1	serving	37g	10g	42g	392
DINNER	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Garlic broccoli tofu	1 1/2	serving	22g	6g	32g	244
Green beans with olive oil	3	serving	6g	21g	24g	284
SNACK	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Beverages, protein powder whey based	1/4	cup	19g	380mg	2g	85
DAY 2 TOTALS			95g	45g	151g	1301



# CUSTOM MEAL PLAN

## A MEAL PLAN GENETICALLY DESIGNED JUST FOR YOU



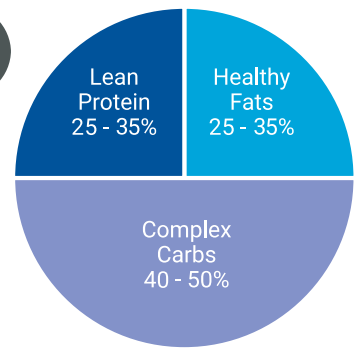
### Day 3

BREAKFAST	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Poached eggs	1	serving	13g	10g	720mg	144
Apple	2 1/4	apple	1g	700mg	57g	213
LUNCH	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Vegan protein squash bowl	1/2	serving	9g	5g	32g	201
Roasted green beans and cashews	1	serving	5g	13g	15g	179
DINNER	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Cheesy chicken and spinach	1	serving	62g	11g	8g	389
Asparagus with lemon and butter	2	serving	8g	5g	14g	114
SNACK	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Popcorn	2	cup	2g	670mg	12g	61
<b>DAY 3 TOTALS</b>			<b>99g</b>	<b>45g</b>	<b>139g</b>	<b>1300</b>



# CUSTOM MEAL PLAN

## A MEAL PLAN GENETICALLY DESIGNED JUST FOR YOU



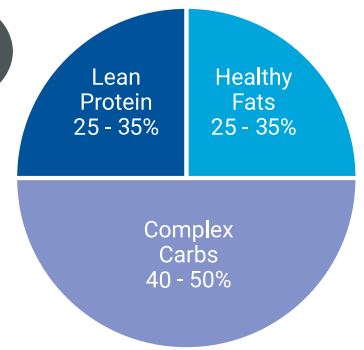
### Day 4

BREAKFAST	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Sausage and cheese breakfast cups	1 3/4	serving	19g	17g	8g	264
Raspberries	1	cup	1g	800mg	15g	64
LUNCH	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Tuna melt patties	1	patty	25g	6g	11g	199
Balsamic maple roasted brussel sprouts	2 1/4	serving	13g	12g	34g	276
DINNER	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Teriyaki garlic chicken	1	serving	29g	3g	9g	189
One-pot mexican style quinoa	1 1/4	serving	6g	5g	27g	178
SNACK	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Strawberries	1 1/2	cup, whole	1g	650mg	17g	69
Popcorn	1 3/4	cup	2g	590mg	11g	53
<b>DAY 4 TOTALS</b>			<b>97g</b>	<b>46g</b>	<b>131g</b>	<b>1293</b>



# CUSTOM MEAL PLAN

## A MEAL PLAN GENETICALLY DESIGNED JUST FOR YOU



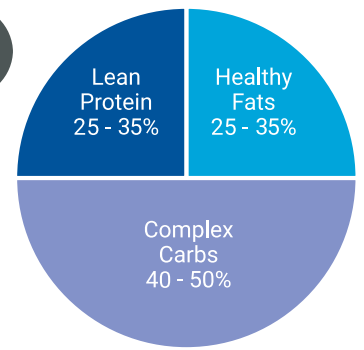
### Day 5

BREAKFAST	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Basic eggs	1	serving	13g	14g	740mg	183
Strawberries	2	cup	2g	860mg	22g	92
LUNCH	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Cilantro turkey burgers	2	patty	45g	17g	5g	356
Clean eating sweet potato fries	1	serving	2g	90mg	19g	80
DINNER	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Easy creamy pork tenderloin	1	serving	25g	9g	7g	209
Squash	1 1/4	cup, cubes	3g	360mg	37g	144
SNACK	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Pomegranates	1	pomegranate (4" dia)	5g	3g	53g	234
DAY 5 TOTALS			94g	45g	143g	1298



# CUSTOM MEAL PLAN

## A MEAL PLAN GENETICALLY DESIGNED JUST FOR YOU



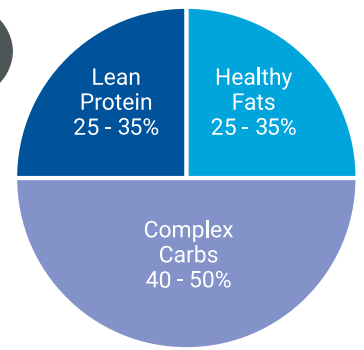
### Day 6

BREAKFAST	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Blueberries	2	cup	2g	980mg	43g	169
LUNCH	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Beef chili with beans	1	serving	31g	15g	40g	406
Roasted brussels sprouts	2	serving	8g	14g	20g	218
DINNER	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Grilled salmon with ginger	4	ounces	24g	6g	6g	177
Sesame broccoli	1	serving	6g	8g	13g	132
SNACK	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Beverages, protein powder whey based	1/3	cup	25g	500mg	2g	114
Pears	1	medium	640mg	250mg	27g	101
DAY 6 TOTALS			97g	44g	151g	1316



# CUSTOM MEAL PLAN

## A MEAL PLAN GENETICALLY DESIGNED JUST FOR YOU



### Day 7

BREAKFAST	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Cinnamon apple oatmeal	1	serving	11g	7g	51g	296
LUNCH	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Lemon garlic shrimp kebabs	2	serving	33g	20g	21g	355
Balsamic maple roasted brussel sprouts	1	serving	6g	5g	15g	123
DINNER	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Turkey and quinoa meatloaf	1 1/4	servings	26g	11g	18g	276
Zucchini spears with parmesan	2	serving	9g	4g	14g	118
SNACK	QTY	MEASURE	PROTEIN	FAT	CARBS	CAL.
Kiwi fruit	3	fruit (2" dia)	2g	1g	30g	126
DAY 7 TOTALS			88g	50g	149g	1294



# Sausage And Cheese Breakfast Cups

This recipe is for 1 serving.



151 Calories • 5g Carbs • 10g Fat • 11g Proteins.

---

## Ingredients:

6/7 large **Egg** (42g)

18 5/6 grams **Sausage** (19g)

23 1/3 grams **Mushrooms** (23g)

1/10 cup, chopped **Onions** (7g)

1/10 cup, chopped **Red bell pepper** (12g)

1/3 oz **Cheddar cheese** (9g)

---

## Directions:

- 1: Pre-heat the oven to 350 °F (175 °C). Coat a 6-cup non-stick muffin pan with cooking spray, or line with paper baking cups.
- 2: In a medium non-stick skillet over medium-high heat, cook the sausage, pepper, and onion for 5 minutes or until the sausage is no longer pink.
- 3: Spoon the mixture into a bowl and let cool slightly. Stir in the eggs and mushrooms.
- 4: Evenly divide the mixture among the prepared muffin cups. Sprinkle with the cheese.
- 5: Bake for 20 minutes or until the egg is set.
- 6: Note: make these ahead of time and warm them in the microwave for a fast and slimming breakfast treat.

# Sweet Potato, Kale, and Shrimp Skillet

This recipe is for 1 serving.



241 Calories • 23g Carbs • 8g Fat • 19g Proteins.

---

## Ingredients:

- 1/2 tbsp Olive oil (7g)
  - 1/4 cup, chopped Onions (40g)
  - 1/4 tsp Crushed red pepper flakes (80mg)
  - 1/2 cloves, minced Garlic (2g)
  - 1/2 cup, cubes Sweet potato (67g)
  - 4 oz Shrimp (113g)
  - 3/4 cup, chopped Kale (50g)
  - 1 dash Pepper (25mg)
  - 1 dash Salt (100mg)
- 

## Directions:

- 1: In a saucepan, add the extra virgin olive oil over medium heat. Add chopped onions and red pepper flakes. Cook until onions are soft and golden.
- 2: Add garlic and cook for about 30 seconds. Add chopped sweet potato and cook until soft, about 10-15 minutes. If needed, add a few tablespoons of water to help steam the sweet potatoes.
- 3: Add shrimp and cook for 2-3 minutes, or until they turn pink. Turn the heat to low and add kale, stirring until wilted. Season to taste with salt and pepper.
- 4: Enjoy!

# Baked Yellow Squash

This recipe is for 1 serving.



49 Calories • 6g Carbs • 2g Fat • 2g Proteins.

---

## Ingredients:

1/2 medium Squash (98g)

1/2 tsp Onion powder (1g)

1/2 tsp Garlic powder (2g)

1 dash Salt (200mg)

1/4 tsp Sugar (1g)

1 dash Pepper (50mg)

1/2 tsp Olive oil (2g)

---

## Directions:

1: Rinse, dry, and cut squash in half. Lightly coat halves in olive oil. Place halves on a baking tray skin side down. Sprinkle seed side with spices. Bake at 350 degrees for 20-30 mins.

# Easy Baked Fish

This recipe is for 1 serving.



302 Calories • 14g Carbs • 11g Fat • 34g Proteins.

---

## Ingredients:

3/4 tbsp Honey (16g)

3/4 tbsp Dijon mustard (11g)

1/4 tsp Lemon juice (1g)

6 oz Atlantic salmon (170g)

1 dash Pepper (263mg)

---

## Directions:

1: Preheat oven to 325 degrees F (165 degrees C).

2: In a small bowl, mix honey, mustard, and lemon juice. Spread the mixture over the salmon steaks. Season with pepper. Arrange in a medium baking dish.

3: Bake 20 minutes in the preheated oven, or until fish easily flakes with a fork.

# Steamed Green Beans

This recipe is for 1 serving.



61 Calories • 8g Carbs • 3g Fat • 2g Proteins.

---

## Ingredients:

4 oz Green beans (113g)

3/4 tsp Butter (4g)

---

## Directions:

- 1: Bring a pot of water with a steam tray to a boil. Add green beans to the steam tray.
- 2: Steam green beans, covered, in water for 5 minutes. Add to a bowl with the butter and toss together well until butter has melted and beans are evenly coated. Enjoy!

# Cinnamon Apple Oatmeal

This recipe is for 1 serving.



296 Calories • 51g Carbs • 7g Fat • 11g Proteins.

---

## Ingredients:

- 1/2 tsp Cinnamon (1g)
  - 1/2 cup Oatmeal (40g)
  - 3/4 cup Whole milk (183g)
  - 1/2 medium (3" dia) Apples (91g)
- 

## Directions:

- 1: Combine oats with cinnamon and milk. Stir together well.
- 2: Microwave for 2.5 minutes or until oatmeal is tender. Stir. Add more milk until the oatmeal is the desired consistency. Microwave 30 more seconds or until warm. Fold in the apple and enjoy!

# Chicken Burrito Bowl

This recipe is for 1 serving.



392 Calories • 42g Carbs • 10g Fat • 37g Proteins.

---

## Ingredients:

- 1/4 spray, about 1/3 second **Pam cooking spray** (75mg)
  - 4 oz **Chicken breast** (113g)
  - 1/4 fruit, without skin and seed **Avocados** (34g)
  - 1 cup shredded **Lettuce** (47g)
  - 1/4 medium (approx 2-3/4" long, 2-1/2" dia) **Green bell pepper** (30g)
  - 1/2 medium whole (2-3/5" dia) **Tomatoes** (61g)
  - 1/2 can (12 oz) yields **Corn** (106g)
  - 4/9 cup **Canned black beans** (108g)
- 

## Directions:

- 1: Heat a grill pan over medium-high heat. Spray with non-stick spray. Add chicken to the pan and cook 5-8 minutes per side until cooked through and no longer pink. Let rest 5 minutes before chopping into bite sized pieces; set aside.
- 2: Chop avocado, lettuce, green pepper, and tomato. Toss together in a bowl with the tomatoes, corn, beans, and chicken. Serve and enjoy!

# Garlic Broccoli Tofu

This recipe is for 1 serving.



163 Calories • 22g Carbs • 4g Fat • 15g Proteins.

---

## Ingredients:

4 oz Tofu (113g)

2 cup chopped Broccoli (182g)

3 tsp Garlic powder (9g)

---

## Directions:

1: Drain and dry tofu. Cut into cubes.

2: Bring water to boil in a pot with a steam tray over top. Add broccoli and steam for 4-6 minutes until tender. Remove from heat and add to a pan over medium heat. Add tofu, sprinkle garlic, and toss until evenly heated through. Serve and enjoy.



# Green Beans with Olive Oil

This recipe is for 1 serving.



95 Calories • 8g Carbs • 7g Fat • 2g Proteins.

---

## Ingredients:

1 1/8 cup 1/2" pieces **Green beans** (113g)

1/2 tbsp **Olive oil** (7g)

1/4 tsp **Salt** (2g)

---

## Directions:

1: PREPARATION: Trim green beans.

2: Cook beans in a 6-quart pot of boiling salted water , uncovered, until just tender, 4 to 6 minutes. Drain in a colander, then transfer to a large bowl and toss with oil, sea salt, and pepper to taste.

# Poached Eggs

This recipe is for 1 serving.



144 Calories • 723mg Carbs • 10g Fat • 13g Proteins.

---

## Ingredients:

2 large Egg (100g)

1 tsp Vinegar (5g)

3/4 tsp Salt (5g)

---

## Directions:

- 1: Add a small dash of vinegar and salt to a pan of steadily simmering water.
- 2: Crack eggs individually into a small cup.
- 3: Create a gentle whirlpool in the water to help the egg white wrap around the yolk.
- 4: Slowly tip the egg into the water, white first. Leave to cook for three minutes.
- 5: Remove with a slotted spoon, cutting off any wispy edges using the edge of the spoon.

# Apple

This recipe is for 1 serving.



95 Calories • 25g Carbs • 309mg Fat • 473mg Proteins.

---

## Ingredients:

1 medium (3" dia) Apples (182g)

---

## Directions:

1: Simply wash and enjoy, or core and slice the apple for easier eating.

# Vegan Protein Squash Bowl

This recipe is for 1 serving.



401 Calories • 64g Carbs • 10g Fat • 17g Proteins.

---

## Ingredients:

1/4 medium (1 lb) **Squash** (113g)

1/2 tbsp **Olive oil** (7g)

1/4 tsp **Salt** (2g)

1/4 cup **Quinoa** (43g)

1/2 can **Tomatoes** (95g)

2 tbsp **Water** (30g)

1/2 cup **Lentils** (99g)

2 tbsp **Parsley** (8g)

1/2 cloves, minced **Garlic** (2g)

1/4 tsp **Lemon juice** (1g)

1 dash **Paprika** (263mg)

---

## Directions:

1: Preheat oven to 400.

2: Chop squash into cubes and in a mixing bowl toss squash with olive oil and sea salt. Transfer and spread squash onto a baking sheet and bake for 25 minutes. The squash should be soft and lightly browned.

3: In a large pot place the quinoa, diced tomatoes, and water. Bring to a boil. Once boiling, reduce the heat to low and cover pot with lid. Simmer for approximately 10-15 minutes or until liquid has been absorbed.

4: Remove quinoa from heat. Stir in the lentils, parsley, garlic, lemon juice, and paprika. Top with squash. Serve hot or cold.

# Roasted Green Beans and Cashews

This recipe is for 1 serving.



179 Calories • 15g Carbs • 13g Fat • 5g Proteins.

---

## Ingredients:

1 cup 1/2" pieces **Green beans** (100g)

1 1/3 tbsp chopped **Shallots** (13g)

1/3 tbsp **Olive oil** (5g)

1/8 cup, halves and whole **Cashew nuts** (17g)

---

## Directions:

1: Preheat oven to 500F with rack in lower third.

2: Roughly chop cashews. Toss green beans with cashews, shallots, oil, and 1/2 teaspoon each of salt and pepper, then spread evenly in a large 4-sided sheet pan.

3: Roast, stirring occasionally, until green beans are tender and nuts are golden brown, about 25 minutes. Season with salt and pepper.

# Cheesy Chicken and Spinach

This recipe is for 1 serving.



508 Calories • 8g Carbs • 25g Fat • 62g Proteins.

---

## Ingredients:

- 1 tbsp Olive oil (14g)
  - 2 half breast (fillet) **Chicken breast** (236g)
  - 1 cup **Spinach** (30g)
  - 1 cup cherry tomatoes **Cherry tomatoes** (149g)
  - 1 oz **Mozzarella cheese** (28g)
- 

## Directions:

- 1: Heat olive oil in a skillet over medium-high heat. Add chicken, cooking about 5-7 minutes. Flip chicken and continue to cook another 5-7 minutes until internal temperatures reaches 165F.
- 2: While the chicken is cooking, cut up tomatoes and spinach in to bite sized pieces.
- 3: Sauté vegetables in pan, season with garlic and salt as desired.
- 4: Shred or grate preferred cheese, like mozzarella, and add to pan.
- 5: When chicken is done cooking remove it from heat. You can either smother the chicken or stuff it with the vegetables mix.

# Asparagus with Lemon and Butter

This recipe is for 1 serving.



57 Calories • 7g Carbs • 3g Fat • 4g Proteins.

---

## Ingredients:

2/3 tsp Butter (3g)

2/5 lb Asparagus (181g)

3/10 tsp Lemon juice (2g)

1 dash Salt (150mg)

1 dash Pepper (26mg)

---

## Directions:

1: PREPARATION: Trim asparagus.

2: Peel lower half to two thirds of each asparagus stalk with a vegetable peeler. Cook asparagus in a wide 6- to 8-quart pot of boiling salted water, uncovered, until just tender, 5 to 7 minutes. Drain well in a colander, then return to pot and toss with butter, lemon juice, salt, and pepper.

# Tuna Melt Patties

This recipe is for 1 serving.



199 Calories • 11g Carbs • 6g Fat • 25g Proteins.

---

## Ingredients:

- 3 oz Tuna (85g)
  - 2 2/3 tbsp Oatmeal (13g)
  - 1 tbsp chopped Onions (10g)
  - 1 dash Garlic powder (388mg)
  - 14 grams Mozzarella cheese (14g)
  - 1/2 extra large Egg (28g)
- 

## Directions:

- 1: Mix all ingredients except cheese together in a small bowl. .
- 2: Heat a small non-stick frying pan over medium heat and spray with non-stick cooking spray.
- 3: Make two small patties by spooning a ½ of tuna mixture into each side of the pan and lightly pressing with fork to flatten into a patty.
- 4: Cook until both sides are brown.
- 5: Top with 1 tbsp. cheese and serve alone, on top of light bread, or with sides of choice



# Balsamic Maple Roasted Brussel Sprouts

This recipe is for 1 serving.



123 Calories • 15g Carbs • 5g Fat • 6g Proteins.

---

## Ingredients:

3/4 tsp **Balsamic vinegar** (4g)

3/4 tsp **Maple syrups** (5g)

3/4 tsp **Olive oil** (3g)

3/4 tsp **Salt** (5g)

3/4 tsp **Pepper** (2g)

1/4 lb **Brussels sprouts** (113g)

1 strip cooked **Bacon** (5g)

---

## Directions:

- 1: Preheat oven to 400 degrees F and line a baking sheet with parchment paper.
- 2: In a large bowl whisk together the balsamic vinegar, maple syrup, oil, salt, and pepper.
- 3: Add the brussel sprouts to the balsamic mixture and toss them until they are completely coated.
- 4: Pour the brussel sprouts out on to the baking sheet in a single layer and place them on the middle rack of the oven.
- 5: Roast the brussel sprouts for 30-35 minutes.
- 6: Meanwhile, cook bacon in a sauté pan over medium heat until desired crispiness is reached. Drain on paper towels, chop, and set aside.
- 7: Pour the brussel sprouts into a serving dish and toss them together with the cooked, diced bacon.

# Teriyaki Garlic Chicken

This recipe is for 1 serving.



189 Calories • 9g Carbs • 3g Fat • 29g Proteins.

---

## Ingredients:

2 tbsp Italian dressing (29g)

2 tbsp Teriyaki sauce (36g)

1/2 cloves, minced Garlic (2g)

1 half breast (fillet) Chicken breast (118g)

---

## Directions:

- 1: In a bowl, add the Italian dressing, teriyaki sauce and minced garlic; stir to combine.
- 2: Add the chicken breast halves; cover and marinate in the refrigerator overnight.
- 3: Grill over hot coals for approximately 10 minutes on each side or until juices run clear.

# One-Pot Mexican Style Quinoa

This recipe is for 1 serving.



142 Calories • 22g Carbs • 4g Fat • 5g Proteins.

---

## Ingredients:

- 1/2 tsp Olive oil (2g)
  - 1/3 cloves, minced Garlic (1g)
  - 1/10 cup, sliced Onions (10g)
  - 2 2/3 tbsp Quinoa (28g)
  - 1/5 can Tomatoes (32g)
  - 2/3 pepper Peppers (333mg)
  - 1/4 cup Vegetable Broth (60g)
  - 1 dash Pepper (88mg)
  - 1 dash Salt (500mg)
  - 1/10 tsp, ground Cumin (167mg)
  - 1/5 tsp Chili powder (433mg)
  - 2/3 tbsp Fresh cilantro (667mg)
- 

## Directions:

- 1: In a large skillet over medium, add oil and sauté onion until tender, about 4 minutes. Add garlic and continue to sauté for 1 minute. Add the remaining ingredients, except cilantro, and stir to combine. Cover and bring to a boil.
- 2: Cook until liquid is absorbed and quinoa is tender, approximately 15 minutes. Turn the burner off and allow the covered skillet to set until any remaining liquid is absorbed, 5-10 minutes. Fluff with a fork, add cilantro for garnish, and serve.
- 3: Enjoy!
- 4: Recipe inspired by: <http://skinnymys.com/one-pot-mexican-style-quinoa-recipe/>

# Basic Eggs

This recipe is for 1 serving.



183 Calories • 736mg Carbs • 14g Fat • 13g Proteins.

---

## Ingredients:

- 2 large **Egg** (100g)
  - 1 dash **Salt** (133mg)
  - 1 dash **Pepper** (33mg)
  - 1/3 tablespoon **Olive Oil** (5g)
- 

## Directions:

1: Whisk the eggs in a medium bowl and until broken up. Season with a pinch each of salt and pepper and beat to incorporate. Place 2 tablespoons of the eggs in a small bowl; set aside.

2: Heat a 10-inch nonstick frying pan over medium-low heat until hot, about 2 minutes. Add oil to the pan and, using a rubber spatula, swirl until it's melted and foamy and the pan is evenly coated. Pour in the larger portion of the eggs and let sit undisturbed until eggs just start to set around the edges, about 1 to 2 minutes. Using the rubber spatula, push the eggs from the edges into the center. Let sit again for about 30 seconds, then repeat pushing the eggs from the edges into the center every 30 seconds until just set, for a total cooking time of about 5 minutes.

3: Add remaining 2 tablespoons raw egg and stir until eggs no longer look wet. Remove from heat and season with salt and pepper, as needed. Serve immediately.

# Strawberries

This recipe is for 1 serving.



46 Calories • 11g Carbs • 432mg Fat • 965mg Proteins.

---

## Ingredients:

1 cup, whole Strawberries (144g)

---

## Directions:

1: Wash and eat.

# Cilantro Turkey Burgers

This recipe is for 1 serving.



178 Calories • 2g Carbs • 9g Fat • 23g Proteins.

---

## Ingredients:

- 1/4 lb Ground turkey (113g)
  - 1/4 cup Fresh cilantro (4g)
  - 1/10 onion Onions (21g)
  - 1/2 cloves, minced Garlic (2g)
  - 1/4 tsp Salt (2g)
  - 1 dash Pepper (131mg)
- 

## Directions:

- 1: Prepare the grill to medium heat or turn the broiler on low.
- 2: Combine all ingredients in a bowl and use a fork to mix well.
- 3: Divide into 4 portions and shape into patties.
- 4: Grill or broil until cooked through and no longer pink, about 10 minutes.

# Clean Eating Sweet Potato Fries

This recipe is for 1 serving.



80 Calories • 19g Carbs • 89mg Fat • 2g Proteins.

---

## Ingredients:

2/3 sweetpotato, 5" long **Sweet potato** (87g)

1/5 spray , about 1/3 second **Pam cooking spray** (50mg)

1/2 tsp **Garlic powder** (2g)

1 dash **Salt** (250mg)

---

## Directions:

1: Preheat oven to 350 degree F.

2: Clean and cut your potatoes into fries.

3: Lay them out in a single layer on a cookie sheet lined with parchment paper (not wax paper).

4: Spray with a very light coat of olive oil.

5: Sprinkle a generous amount of garlic powder over the potatoes.

6: Bake for 30-40 minutes. Sprinkle with a dash of salt and serve. Enjoy!

7: Recipe inspired by: <http://www.thegraciouspantry.com/clean-eating-french-fries/>

# Easy Creamy Pork Tenderloin

This recipe is for 1 serving.



209 Calories • 7g Carbs • 9g Fat • 25g Proteins.

---

## Ingredients:

1/4 lb Pork tenderloin (113g)

1 dash Pepper (50mg)

1/3 can (10.75 oz) Cream of celery soup (102g)

---

## Directions:

1: Season pork tenderloin with pepper, and place in slow cooker. Pour undiluted celery soup onto tenderloin, covering meat completely.

2: Cover, and cook on Low for 8 hours.



# Blueberries

This recipe is for 1 serving.



84 Calories • 21g Carbs • 488mg Fat • 1g Proteins.

---

## Ingredients:

1 cup Blueberries (148g)

---

## Directions:

1: Wash and enjoy

# Beef Chili with Beans

This recipe is for 1 serving.



406 Calories • 40g Carbs • 15g Fat • 31g Proteins.

---

## Ingredients:

- 3 oz Ground beef (85g)
  - 3/4 tsp Chili powder (2g)
  - 1 dash Salt (750mg)
  - 1/4 medium (2-1/2" dia) Onions (28g)
  - 1 clove Garlic (3g)
  - 1/4 pepper Jalapeno peppers (4g)
  - 1 dash Cayenne pepper (172mg)
  - 1/4 cup Tomato juice (61g)
  - 1/2 cup Canned black beans (122g)
  - 1/4 cup Beef broth or bouillon canned soup (60g)
  - 1/8 can, 15 oz (303 x 406) Tomato sauce (56g)
  - 1/2 cup Salsa (130g)
- 

## Directions:

- 1: Mix chili powder and salt with beef. Place onion, garlic, and jalapeno pepper in slow cooker.
- 2: Top with beef, cayenne pepper, tomato juice, beef stock, black beans, tomato sauce, salsa and water.
- 3: Cover slow cooker and cook on low for 8-9 hours, until beef is tender. Remove about 1/3 of the beans from the slow cooker, mash, and return to pot. Cook for an additional 20-30 minutes, until mixture is thickened.

# Roasted Brussels Sprouts

This recipe is for 1 serving.



109 Calories • 10g Carbs • 7g Fat • 4g Proteins.

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## Ingredients:

1/4 lb Brussels sprouts (113g)

1/2 tbsp Olive oil (7g)

1 dash Salt (750mg)

1 dash Pepper (175mg)

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## Directions:

- 1: Preheat oven to 400°F.
- 2: Cut off the ends of the Brussels sprouts and pull off any yellow outer leaves.
- 3: Mix them in a bowl with the olive oil, salt, and pepper.
- 4: Transfer them to a sheet pan and roast for 35 to 40 minutes, until crisp outside and tender inside.
- 5: Shake the pan from time to time to brown the Brussels sprouts evenly.
- 6: Sprinkle with more kosher salt (I like these salty like French fries), if you like, and serve hot.

# Grilled Salmon with Ginger

This recipe is for 1 serving.



177 Calories • 6g Carbs • 6g Fat • 24g Proteins.

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## Ingredients:

- 1/4 tsp Olive oil (1g)
  - 1/4 tbsp Mustard (4g)
  - 3/4 tsp Honey (5g)
  - 3/4 tsp Ginger (1g)
  - 4 oz Pink salmon (113g)
- 

## Directions:

- 1: In a small bowl blend olive oil, mustard, honey, and ginger
- 2: Place salmon in small ziplock bag, pour glaze in. Gently roll to cover fish with glaze. Put in refrigerator for up to 1 hour. Preheat grill for 5 minutes. Place salmon flesh side down on a piece of aluminum foil over medium-hot coals. Close the lid and cook 5-6 minutes. Carefully flip salmon over placing skin side directly on grates. Discard the foil. Again, close the grill. Continue cooking until the fish flakes easily with a fork (5 to 6 minutes).

# Sesame Broccoli

This recipe is for 1 serving.



132 Calories • 13g Carbs • 8g Fat • 6g Proteins.

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## Ingredients:

3/8 lb Broccoli (170g)

3/4 tsp Sesame oil (3g)

1/2 tbsp Sesame seeds (8g)

3/4 tsp Soy sauce (4g)

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## Directions:

- 1: Prepare the broccoli for cooking. Boil, steam and drain. Please DO NOT over cook! Generally 6-8 minutes to steam or boil is about right for crisp broccoli.
- 2: Heat the sesame oil on a skillet or wok for 15 seconds over high heat. Add the sesame seeds and the broccoli.
- 3: Stir fry until heated through.
- 4: Remove from the pan to a serving dish, pour soy sauce over!

# Lemon Garlic Shrimp Kebabs

This recipe is for 1 serving.



177 Calories • 10g Carbs • 10g Fat • 17g Proteins.

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## Ingredients:

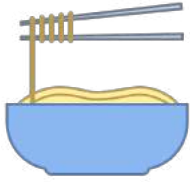
- 4 oz **Shrimp** (113g)
  - 2/3 fruit without seeds **Lemons** (72g)
  - 1/10 stick **Butter** (11g)
  - 2/3 tbsp **Lemon juice** (10g)
  - 2/3 cloves, minced **Garlic** (2g)
  - 1/10 tsp, ground **Oregano** (150mg)
  - 1/10 tsp, leaves **Thyme** (83mg)
  - 1/10 tsp, ground **Basil** (117mg)
  - 1 dash **Salt** (67mg)
  - 1 dash **Pepper** (17mg)
  - 1/3 tbsp **Parsley** (1g)
- 

## Directions:

- 1: Preheat oven to 450 degrees F. Lightly oil a baking sheet or coat with nonstick spray.
- 2: Thread shrimp and lemon halves onto skewers. Place skewers onto the prepared baking sheet. Place into oven and roast just until pink, firm and cooked through, about 5-7 minutes.
- 3: Melt butter in a medium skillet over medium high heat. Stir in lemon juice, garlic, oregano, thyme, and basil until fragrant, about 2 minutes; season with salt and pepper, to taste.
- 4: Serve shrimp skewers immediately, brushed with butter mixture and garnished with parsley, if desired.

# Turkey and Quinoa Meatloaf

This recipe is for 1 serving.



221 Calories • 14g Carbs • 9g Fat • 21g Proteins.

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## Ingredients:

- 4/5 tbsp Quinoa (9g)
  - 1 3/5 tbsp Water (24g)
  - 1/5 tsp Olive oil (900mg)
  - 1/5 small Onions (14g)
  - 1/5 cloves, minced Garlic (600mg)
  - 1/5 unit, yield from 1 lb raw Ground turkey (66g)
  - 3/5 tsp Tomato paste (3g)
  - 1/5 tbsp, ground Pepper (1g)
  - 2/5 tbsp Worcestershire sauce (7g)
  - 1/5 medium Egg (9g)
  - 3/10 tsp Salt (2g)
  - 1/5 tsp Pepper (420mg)
  - 2/5 tbsp Brown sugar (4g)
  - 2/5 tsp Worcestershire sauce (2g)
  - 1/10 tbsp Water (986mg)
- 

## Directions:

- 1: Bring the quinoa and water to a boil in a saucepan over high heat. Reduce heat to medium-low, cover, and simmer until the quinoa is tender, and the water has been absorbed, about 15 to 20 minutes. Set aside to cool.
- 2: Preheat an oven to 350 degrees F (175 degrees C).
- 3: Heat the olive oil in a skillet over medium heat. Stir in the onion; cook and stir until the onion has softened and turned translucent, about 5 minutes. Add the garlic and cook for another minute; remove from heat to cool.

- 4: Stir the turkey, cooked quinoa, onions, tomato paste, hot sauce, 2 tablespoons Worcestershire, egg, salt, and pepper in a large bowl until well combined. The mixture will be very moist. Shape into a loaf on a foil lined baking sheet. Combine the brown sugar, 2 teaspoons Worcestershire, and 1 teaspoon water in a small bowl. Rub the paste over the top of the meatloaf.
- 5: Bake in the preheated oven until no longer pink in the center, about 50 minutes. An instant-read thermometer inserted into the center should read at least 160 degrees F (70 degrees C). Let the meatloaf cool for 10 minutes before slicing and serving.
- 6: Recipe by: Andrew Benoit (source: <https://www.allrecipes.com/recipe/213211/turkey-and-quinoa-meatloaf/?internalSource=hub%20recipe&referringContentType=Search&clickId=cardslot%208>)



# Zucchini Spears with Parmesan

This recipe is for 1 serving.



59 Calories • 7g Carbs • 2g Fat • 5g Proteins.

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## Ingredients:

2/3 large Zucchini (215g)

1/5 tsp Salt (1g)

1 tbsp Parmesan cheese (5g)

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## Directions:

- 1: Bring a large pot of salted water to boil. Preheat broiler.
- 2: Cut zucchini lengthwise and cut into 1/4 inch wedges.
- 3: Cook zucchini in boiling water until crisp-tender, about 1 minute. Drain and place on a baking sheet.
- 4: Sprinkle with salt and parmesan cheese. Broil until cheese is melted and browned. Enjoy!



# A EXERCISE PLAN GENETICALLY DESIGNED JUST FOR YOU

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Your exercise genotype suggests that you may benefit from the following exercise prescription. You can personalize your plan according to the facilities and equipment you have. Below are 5 examples of what your weekly workout plan might look like. These are simple examples based on your personalized exercise recommendation. Look at your synopsis in the top boxes and choose the type of workouts that best suit you to create a weekly plan. For example, if you work out at a health club or you have cardio machines at home, you can design a plan that looks like Gym – Cardio Machines. If you belong to a club that offers fitness classes (or if you have fitness DVDs at home), you can design your weekly workouts to look something like Gym – Fitness Classes. If you like to keep it simple by walking and using minimal equipment, use some dumbbells or exercising resistance bands and walk outside with a routine that looks like Home - Walk. If you want a higher intensity workout at home, try Home – Run+Bike. If you alternate your workouts between exercising at home and at the gym, format your workout week to look something like Mix – Home+Gym. The activities shown in each week are only suggestions. If Dance Fitness classes or Kickboxing classes are not for you, then substitute another cardio workout that you would enjoy. You can (and should) choose activities that you love to do and that are suited for your personal needs and preferences. But also, be adventurous and try new activities on occasion.

- These sample plans are based on attaining at least the minimum number of recommended minutes of exercise per week that is indicated in your personalized exercise prescription. If your prescription suggests that you need to get at least 150 minutes per week, one sample week may list workouts that total 150 cardio exercise minutes, another week may add up to 165 minutes. You can modify as needed - remember to build up to greater amounts of exercise slowly if you are new to exercise. For optimal results, this amount of exercise can (and should) be increased as you get fitter and when you have extra time to exercise. The more exercise minutes you perform, the greater your weight loss potential. To increase the number of exercise minutes you get in each week, add in extra sessions or make your sessions longer (or both!)
- Perform at the recommended intensity by adjusting your speed, incline, level of resistance, etc. If your prescription says to exercise at a moderate-to-vigorous intensity, for example, you might alternate effort levels within one workout (walk faster, then slower in one session), or you might have one moderate-intensity day where you workout at a moderate level on the elliptical trainer and then have a vigorous intensity workout on another session where you walk fast uphill or you take a spin class (indoor cycling tends to be intense.)
- The 2008 DHHS Physical Activity Guidelines recommend to perform moderate or high intensity muscle-strengthening moves that target all major muscle groups (shoulders, arms, chest, abdomen, back, rear end, thighs and calves) on 2 or more days a week. Use weights that are heavy enough to fatigue you by the end of each set. Perform the recommended number of reps and sets during your strength workouts. For example, when using dumbbells at home or weight machines at the gym, choose exercises that target your major muscles in your upper and lower body and do 2 to 3 sets of 8 to 15 reps.



## CUSTOM EXERCISE PLAN

- Incorporate the special types of workouts indicated in your exercise recommendation. For example, you might be recommended to try HIIT (high-intensity interval training) or to use kettlebells or to follow a barbell-based muscle strength and endurance workout. HIIT, or high-intensity interval training, is a training technique in which you give all-out, one hundred percent effort through quick, intense bursts of exercise, followed by short, sometimes active, recovery periods. This type of training gets and keeps your heart rate up and burns more fat in less time.
- Fit in your strength workouts on the same day or different days as your cardio workouts. Although the minutes that you spend doing strength exercises do add up and can count towards total exercise minutes, strength workouts tend not to burn as many calories as a cardio workout. For optimal weight loss results, we have counted only cardio exercise minutes as minutes that meet your exercise prescription quota.
- At the gym, you may want to lift free weights, use weight machines or take a weights class. At home, you may want to use dumbbells or bands by following a fitness video.
- You can also try other forms of strength workouts at the gym or at home (kettlebells, barbell classes, circuit training, etc.). Your exercise recommendation may suggest some specific workout activities. If you have access to these (i.e., if you have the equipment at home or in a gym, or if you have access to the class types at a club or by DVD), try them. If you do not, substitute with a similar activity if you can.
- Your home workouts can be designed based on the equipment you have: treadmill, bike, elliptical trainer, dumbbells, bands, etc.



# CUSTOM EXERCISE PLAN

## CARDIO EXERCISE

## STRENGTH TRAINING

### FREQUENCY

More than or equal to 5 days per week

### INTENSITY

Moderate to vigorous

### FREQUENCY

4 days per week

### SETS & REPS

3 sets; 15-20 reps

### DURATION

More than or equal to 300-400 minutes per week

### MUSCLE GROUPS

Chest, back, legs, shoulders, core (abs and low back), arms

## GYM MACHINES

\* description included

Day 1

\* Step Machine HIIT - 65 minutes

Day 2

Treadmill Walk - 65 minutes

\* Power Moves - 3 sets; 15-20 reps

Day 3

Eliptical Trainer - 65 minutes

Day 4

Bike - 65 minutes

Day 5

Treadmill Walk - 65 minutes

Weight Machines - 3 sets; 15-20 reps

Day 6

Day 7

Eliptical Trainer - 65 minutes

Weight Machines - 3 sets; 15-20 reps



# CUSTOM EXERCISE PLAN

## CARDIO EXERCISE

## STRENGTH TRAINING

### FREQUENCY

More than or equal to 5 days per week

### INTENSITY

Moderate to vigorous

### FREQUENCY

4 days per week

### SETS & REPS

3 sets; 15-20 reps

### DURATION

More than or equal to 300-400 minutes per week

### MUSCLE GROUPS

Chest, back, legs, shoulders, core (abs and low back), arms

## GYM FITNESS CLASSES

\* description included

Day 1

Aerobics Class - 65 minutes

Weight Class - 3 sets; 15-20 reps

Day 2

Treadmill Walk - 65 minutes

\* Power Moves - 3 sets; 15-20 reps

Day 3

Cardio Class - 65 minutes

Day 4

Spin Class - 65 minutes

Weight Class - 3 sets; 15-20 reps

Day 5

Day 6

Treadmill Walk - 65 minutes

Day 7

Spin Class - 65 minutes

\* Power Moves - 3 sets; 15-20 reps



# CUSTOM EXERCISE PLAN

## CARDIO EXERCISE

## STRENGTH TRAINING

### FREQUENCY

More than or equal to 5 days per week

### INTENSITY

Moderate to vigorous

### FREQUENCY

4 days per week

### SETS & REPS

3 sets; 15-20 reps

### DURATION

More than or equal to 300-400 minutes per week

### MUSCLE GROUPS

Chest, back, legs, shoulders, core (abs and low back), arms

## HOME WALK

\* description included

Day 1

Walk - 65 minutes

Day 2

Walk - 65 minutes

\* Dumbbells - 3 sets; 15-20 reps

Day 3

Day 4

\* Walk HIIT - 65 minutes

\* Power Moves - 3 sets; 15-20 reps

Day 5

\* Walk HIIT - 65 minutes

Day 6

Walk - 65 minutes

\* Dumbbells - 3 sets; 15-20 reps

Day 7

Walk - 65 minutes

\* Power Moves - 3 sets; 15-20 reps



# CUSTOM EXERCISE PLAN

## CARDIO EXERCISE

## STRENGTH TRAINING

### FREQUENCY

More than or equal to 5 days per week

### INTENSITY

Moderate to vigorous

### FREQUENCY

4 days per week

### SETS & REPS

3 sets; 15-20 reps

### DURATION

More than or equal to 300-400 minutes per week

### MUSCLE GROUPS

Chest, back, legs, shoulders, core (abs and low back), arms

## HOME RUN + BIKE

\* description included

Day 1

Run - 65 minutes

\* Power Moves - 3 sets; 15-20 reps

Day 2

Day 3

Bike - 65 minutes

\* Dumbbells - 3 sets; 15-20 reps

Day 4

\* Run HIIT - 65 minutes

\* Power Moves - 3 sets; 15-20 reps

Day 5

Day 6

Bike - 65 minutes

\* Dumbbells - 3 sets; 15-20 reps

Day 7

Run - 65 minutes



# CUSTOM EXERCISE PLAN

## CARDIO EXERCISE

## STRENGTH TRAINING

### FREQUENCY

More than or equal to 5 days per week

### INTENSITY

Moderate to vigorous

### FREQUENCY

4 days per week

### SETS & REPS

3 sets; 15-20 reps

### DURATION

More than or equal to 300-400 minutes per week

### MUSCLE GROUPS

Chest, back, legs, shoulders, core (abs and low back), arms

## MIX HOME + GYM

\* description included

Day 1

\* Dance Fitness Class - 65 minutes

Weight Class - 3 sets; 15-20 reps

Day 2

Walk - 65 minutes

Day 3

\* Elliptical Trainer HIIT - 65 minutes

Weight Class - 3 sets; 15-20 reps

Day 4

Walk - 65 minutes

\* Power Moves - 3 sets; 15-20 reps

Day 5

Day 6

Run - 65 minutes

\* Dumbbells - 3 sets; 15-20 reps

Day 7

\* Elliptical Trainer HIIT - 65 minutes





## DEFINITIONS

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### WHAT IS HIIT?

HIIT, or high intensity interval training, is a way to structure any cardio workout that involves alternating high and low intensity intervals of movement. After warming up, a high intensity interval is performed for 30 seconds or longer. This is followed by a recovery interval where the same activity is performed at an easier, low intensity for 30 seconds and up to 5 minutes or longer. This is in contrast to a steady-state cardio workout where an activity is performed at a similar effort level over a sustained period of time.

How long each high and low intensity interval lasts depends on fitness level. A trained person can perform longer high intensity intervals and may not need as much time to recover during lower intensity intervals. A person new to exercise should perform very short high intensity intervals (~30 seconds to 1 minute) followed by longer low intensity intervals. (~2 minutes or longer.) HIIT can be applied to any type of cardio workout including walking, running, cycling, etc. Any indoor cycling class such as 'Spinning' is usually formatted to alternate between higher and lower intensity intervals.

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### WHAT ARE POWER MOVES?

Power training is a form of resistance training and/or body conditioning where exercises are performed very quickly for short periods of time. A power move is an exercise performed with a heavier weight that is lifted explosively and with momentum, but for only 3 to 6 reps, rather than 8 to 15 reps. Non-weighted movements can also be power moves: Plyometric exercises such as squat jumps move the body explosively and can also help develop power. Since this type of training is very high intensity, seek the advice of a certified personal trainer and only perform this type of workout once a week unless you are very fit.

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### WHAT ARE DUMBBELL / BARBELL CLASSES?

Barbell classes are resistance training classes that use barbells, as well as dumbbells. Typically, these classes use light weight and perform a high number of repetitions. One set of exercises lasts several minutes longer than traditional strength training approaches. So there is a greater focus on muscular endurance in these workouts. One branded class of this type is known as Body Pump, but many gyms offer similar workouts under different names.

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### DANCE FITNESS CLASS



## CUSTOM EXERCISE PLAN

Dance fitness is a form of cardiovascular exercise that uses dance moves to increase the heart rate. Variations of intensity and heart rate elevation depends on dance moves involved, tempo, and personal expression of the moves. Classes are typically offered in many gyms under various names.

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