Fitgenes Genetic Blueprint

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fitgenes
PERSONALISED HEALTH

Welcome!

This is your personalized genetic analysis - where cutting-edge science meets actionable wellness strategies.

This isn't just a report - it's your genetic roadmap to optimal health.

We've transformed complex genetic data into clear, strategic recommendations that are uniquely yours, based on the science of genetics.

We've decoded your DNA to reveal the specific insights that will power your wellness journey.

Let's dive into your results and unlock the potential written in your genes. Your journey to enhanced longevity, vitality, and peak performance starts here.

Disclaimers

Disclaimer: The information provided here is for informational and educational purposes only. This information is NOT intended as a substitute for the advice provided by your qualified practitioner or other healthcare professional, or any information contained on or in any product label or packaging.

Do not use the information provided in this report for diagnosing or treating a health problem or disease, or prescribing medication or other treatment. Always consult with your qualified practitioner or other healthcare professional before taking any medication, supplement, herbal product, or making any lifestyle changes, or following any recommendations for health or wellness issues.

If you have or suspect that you have a medical problem, contact your healthcare provider promptly. Please don't ignore professional medical advice or delay in seeking professional advice because of something you have read in this report. The information provided in this report and the use of any products or services mentioned are for information and educational purposes only. The summary dots serve as general summaries to best educate on the overall combined effects of multiple genes. You must work with your practitioner to individualize your recommendations.

Information and statements regarding dietary supplements have not been evaluated by the Food and Drug Administration and are not intended to diagnose, treat, cure, or prevent any disease.

By reading this report, you acknowledge and agree that the field of genetics is subject to continuous development and evolution. New insights, knowledge, and recommendations may emerge over time. You understand that the report content may not encompass subsequent developments in the field. As such, no representations or warranties, express or implied, are made regarding the completeness, up-to-dateness, and current validity of the report content in light of future developments in the field of genetics.

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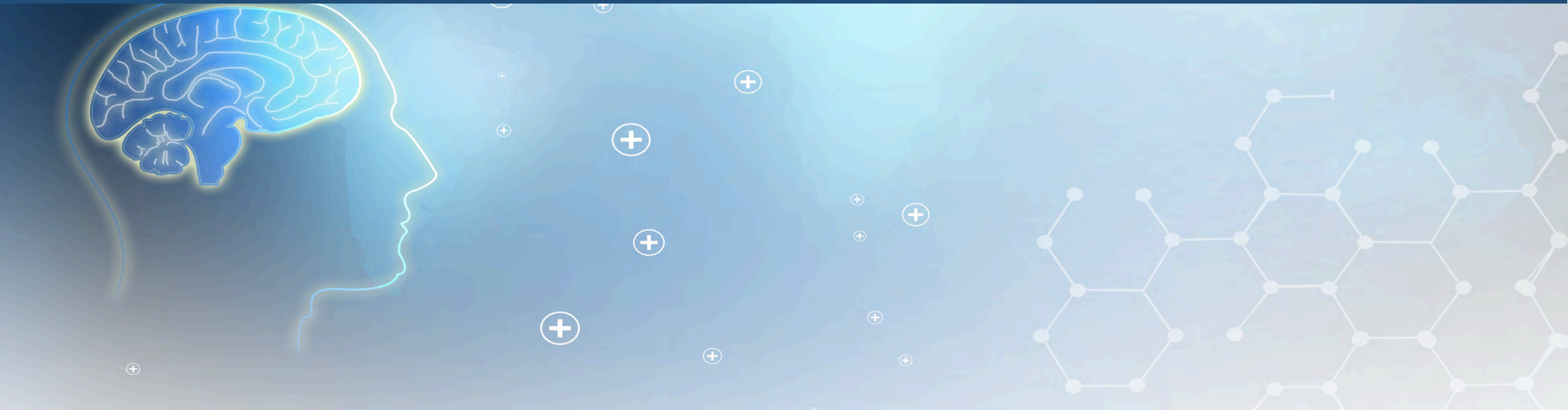
For a list of major references, please visit: www.fitgenes.com/references

TABLE OF CONTENTS:

Click on the page numbers to easily navigate to the different parts of your report

Your Genetic Results Summary

This is the action guide derived from your specific gene combination.
If you want to know the specific genes and scientific citations, you can review the subreports.



1-page summary of quick wins

DIET: Your genetics indicate you are more suited for the following diet, consisting of several key parts. Work with your practitioner to integrate these dietary changes.

- Elimination diet
- Low histamine diet (example of a low-histamine diet and elimination diet)
- Low/no alcohol
- Low salt (only if you have existing high blood pressure or water retention, otherwise, salt is ok)
- Mindful eating (regulate satiety)
- Anti-inflammatory diet
- No lactose (milk sugar)

Top 5 Genetics-Based Supplements

Priority	Genetics-based ingredient(s)
1	SOD Inducer
2	Sulforaphane
3	Omega 3s (EPA/DHA)
4	Vitamin D3
5	Anti-Histamine Nutrients

Exercise:

Your muscle fiber type:

Yellow dot = Genetically More Intermediate-Twitch fibers.
You are genetically considered more of a "mixed fiber" type, yet genetically tilt towards more potential for power/sprint exercises

Collagen components:

Red dot: Your collagen genes have a greater risk of not being protective of your musculoskeletal system from soft tissue injuries, and potentially much less inflexible and poorer mobility.

Exercised-induced inflammation and muscle injury:

Red dot: Indicates a much increased risk of inflammation from exercise and risk of exercise-induced muscle injury.

Hydration

Reminder: You must drink adequate water each day if you take supplements.
Total water for the day is ~1/2 your body weight in ounces.

- Add ~20% more water if you:
  - a) do heavy activity,
  - b) live in high temperatures,
  - c) live in high altitude
  - d) sweat heavily
  - e) are in any other circumstances you lose more water.

See the hydration chart as a good estimate of your water needs, yet your individual needs may vary, particularly if more than 1 of the situations listed above affects you.

Quick Wins: Your Ideal Diet Summary

Your genetics indicate you are more suited for the following diet, consisting of several key parts.

Work with your practitioner to integrate these dietary changes.


Elimination diet


Low histamine diet (example of a low-histamine diet and elimination diet)


Low/no alcohol


Low salt (only if you have existing high blood pressure or water retention, otherwise, salt is ok)

Mindful eating (regulate satiety)


Anti-inflammatory diet


No lactose (milk sugar)

Quick Wins: Your Personalized Supplement Protocol

Priority	Genetics-based ingredient(s)
1	SOD Inducer
2	Sulforaphane
3	Omega 3s (EPA/DHA)
4	Vitamin D3
5	Anti-Histamine Nutrients

1. Supplements are prioritized based on your genetics.
    a. Work with your practitioner to modify as needed and to decide which brand(s) and specific products are best for you.
2. Take what is realistic and not overwhelming for you.
    a. Choose the top 3-5 supplements.
3. Please print this page and post it somewhere visible, e.g. on your refrigerator.
4. Drink more fluids in between meals (for optimal digestion) to stay hydrated while on this protocol. Water is crucial!

QuickWins: You must drink adequate water while taking supplements

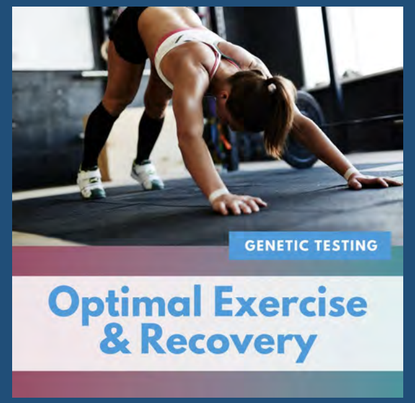
(~1/2 body weight in ounces. Add ~20% more water if you do heavy activity, sweat heavily, or live in high temperatures, or live in high altitude)

(This chart is a good estimate and your individual needs may vary. Work with your practitioner.)

Body Weight	Amount of water per day w/ regular activity	Amount of water/day w/ heavy activity or high temp or high altitude
99 lbs. (45 kg)	50 oz = 6 1/4 cups	~60 oz = 7 1/2 cups
110 lbs. (50 kg)	55 oz = 7 cups	~ 66 oz = 8 1/4 cups
121 lbs. (55 kg)	60 oz = 7 1/2 cups	~ 72 oz = 9 cups
132 lbs. (60 kg)	66 oz = 8 1/4 cups	~ 79 oz = 10 cups
143 lbs. (65 kg)	72 oz = 9 cups	~ 86 oz = 11 cups

Body Weight	# of 8 oz. glasses per day w/ regular activity	# of 8 oz. glasses/day w/ heavy activity or high temp or high altitude
154 lbs. (70 kg)	77 oz = 9 1/2 cups	~92 oz = 11 1/2 cups
165 lbs. (75 kg)	83 oz = 10 1/4 cups	~100 oz = 12 1/5 cups
176 lbs. (80 kg)	88 oz = 11 cups	~106 oz = 13 1/4 cups
187 lbs. (85 kg)	94 oz = 11 3/4 cups	~113 oz = 14 cups
198 lbs. (90 kg)	99 oz = 12 1/4 cups	~119 oz = 15 cups

Exercise & Recovery



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Speed vs. Endurance

The ACTN3 gene codes for muscle-fiber types: Fast-, Intermediate-, & Slow-twitch

The green dot codes for more fast-twitch fibers, therefore more explosive contractions (e.g. sprinting)
The yellow dot is considered a more 'mixed' fiber type with a tilt towards sprinting-like activities.
The red dot has fewer fast-twitch fibers, optimized for more endurance activities.

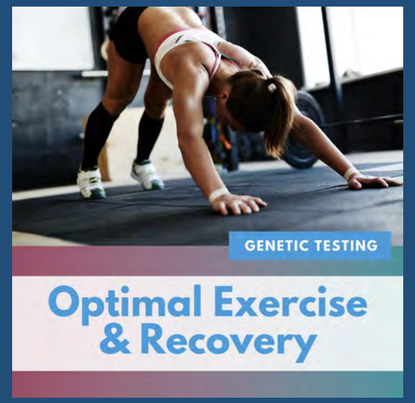
Yellow dot = Genetically More Intermediate-Twitch fibers.

You are genetically considered more of a "mixed fiber" type, yet genetically tilt towards more potential for power/sprint exercises

- **Green dots are Fast Twitch** = most optimally suited for sprint and power exercises if they want to make the most of their innate genetic abilities.
- **Yellow dots are Intermediate Twitch** = a mixture of power and endurance, but with more emphasis on power.
- **Red dots are Slow Twitch** = most suited to endurance activities if they want to make the most of their innate genetic abilities.
- **NOTE: Your dot color still allows you to do other exercises.** The color of your dot indicates what activities you are genetically more likely to perform naturally at a higher level on average compared to other dots. Your dot color does not exclude you from activities outside your genetic predisposition, but your performance may be limited.
- Re: Red dot/Endurance individuals may have to work harder to achieve high-performing sprint activities, and may have a higher risk of injuries in sprint activities, while Green dot/Power individuals will struggle to achieve high performance in endurance activities. Individuals with a yellow dot will be more likely to excel at mixed activities, yet not at any individual sport.

- **Practical applications:** The following are general guidelines for healthy exercise, yet all are best customized to you under direct supervision from a healthcare professional to fit your specific needs: such as your biomechanics, exercise history, mobility, structural capacity, physical limitations, personal physique, athletic goals, & other factors.
  - **2-3x/week of safe HIIT** (High Intensity Interval Training) with at least 1 day off in between for recovery.
  - **Regular daily movement,** such as walking, Tai Chi, Qi Gong, biking, etc.
  - **Varying types of exercise to train and access different movem**ent patterns and muscle groups.
  - **Train safely** in both High Intensity and Endurance, regardless of dot color

Exercise & Recovery



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Injury Risk

Collagen Components:

Collagen acts like the body's natural glue and scaffolding. Collagen helps make your skin, ligaments, bones, tendons, and muscles strong and gives them their shape.

Red dot: Your collagen genes have a greater risk of not being protective of your musculoskeletal system from soft tissue injuries, and potentially much less inflexible and poorer mobility.

Exercise-induced inflammation and muscle injury

Too much exercise can cause inflammation and an increased risk to muscle injury. Genetic variations (yellow or red dots) can increase the risk of more inflammation from exercise, requiring longer recovery and rest between training sessions.

Red dot: Indicates a much increased risk of inflammation from exercise and risk of exercise-induced muscle injury.

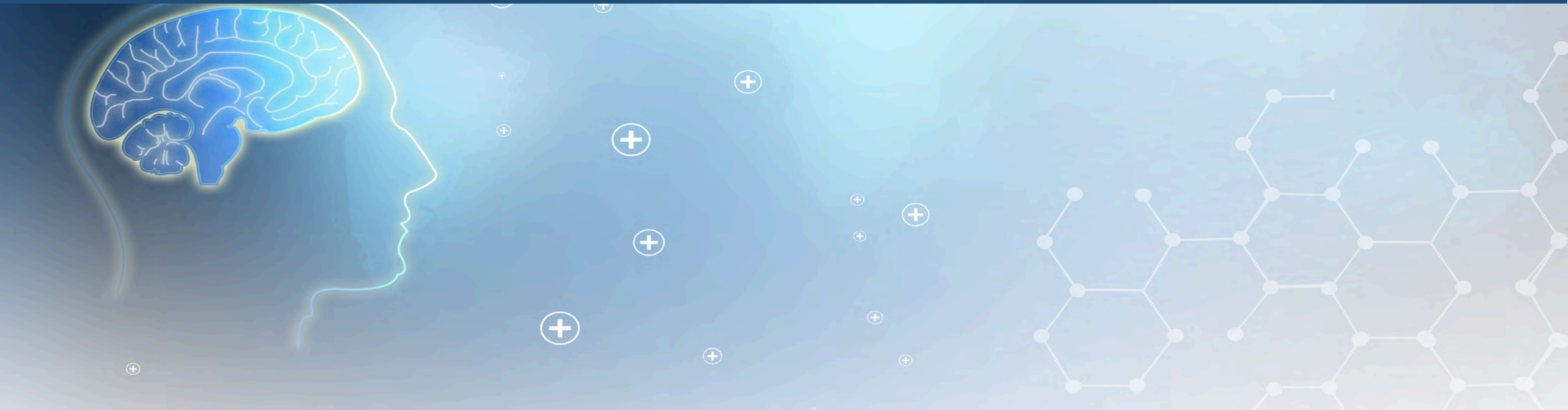
- **Practical applications:**

  The following are general guidelines for healthy exercise, yet all are best customized to you under direct supervision from a healthcare professional to fit your specific needs: such as your biomechanics, exercise history, mobility, structural capacity, physical limitations, personal physique, athletic goals, & other factors.

- **Warm-up** before athletic activities
- **Diet/supplements for injury prevention**, such as an anti-inflammatory diet and collagen-based foods or supplements.
- **Post-exercise recovery strategies,** such as swimming, yoga, stretching, walking, saunas, cold plunges, etc.
- **Regular daily movement**, such as walking, Tai Chi, Qi Gong, biking, etc.
- **Avoid overtraining**: Avoid doing intense exercise too many times in a week. E.g. Limit HIIT to 2-3x a week with at least a day in between for recovery.
  - Schedule daily movement on the off-days during the time that would be otherwise allocated to HIIT.

Introduction

Inside Your DNA: Understanding Genes and Their Impact on Your Health



What is a Gene?
(A “recipe” for a protein your body needs)

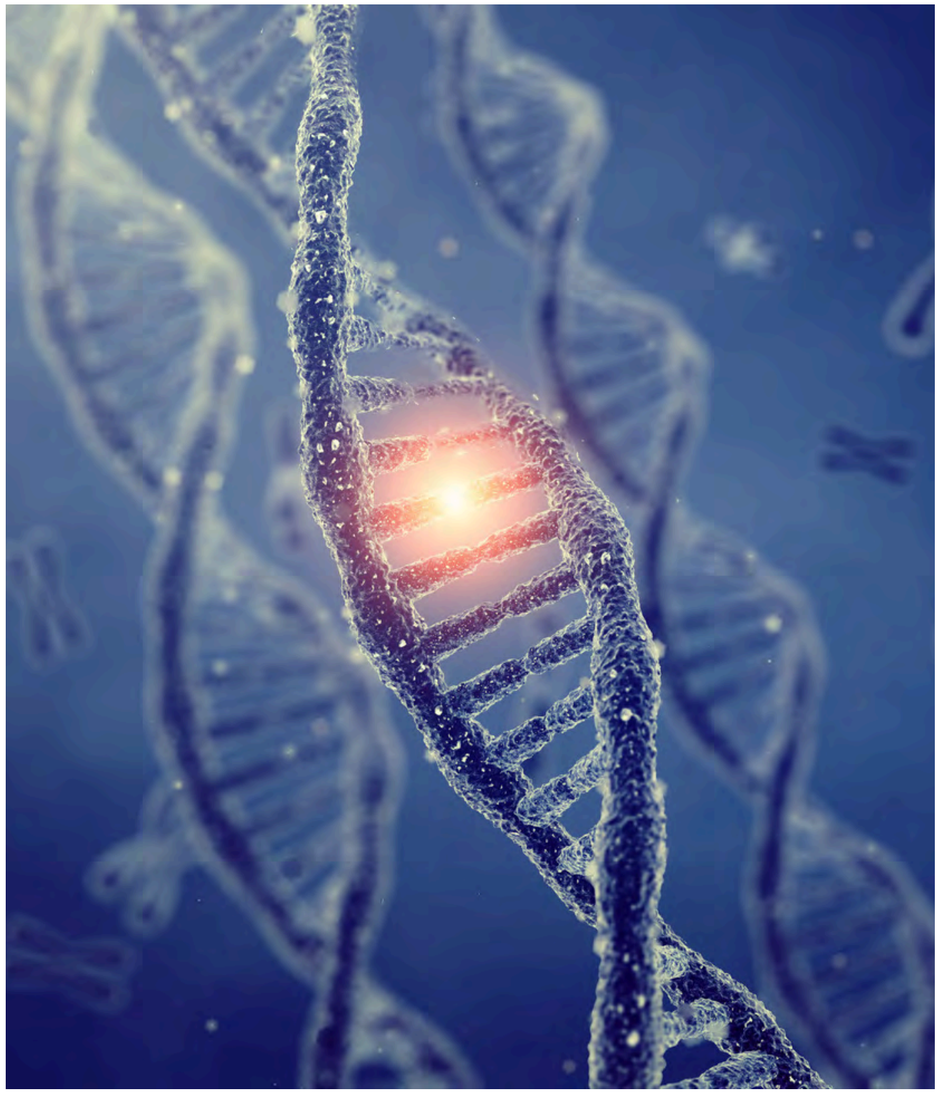
A gene (or “recipe”) is a component of DNA, which is a “recipe book” that contains all the genetic information needed to build and maintain you.

Genes are passed down from your parents, half from Mom and half from Dad.

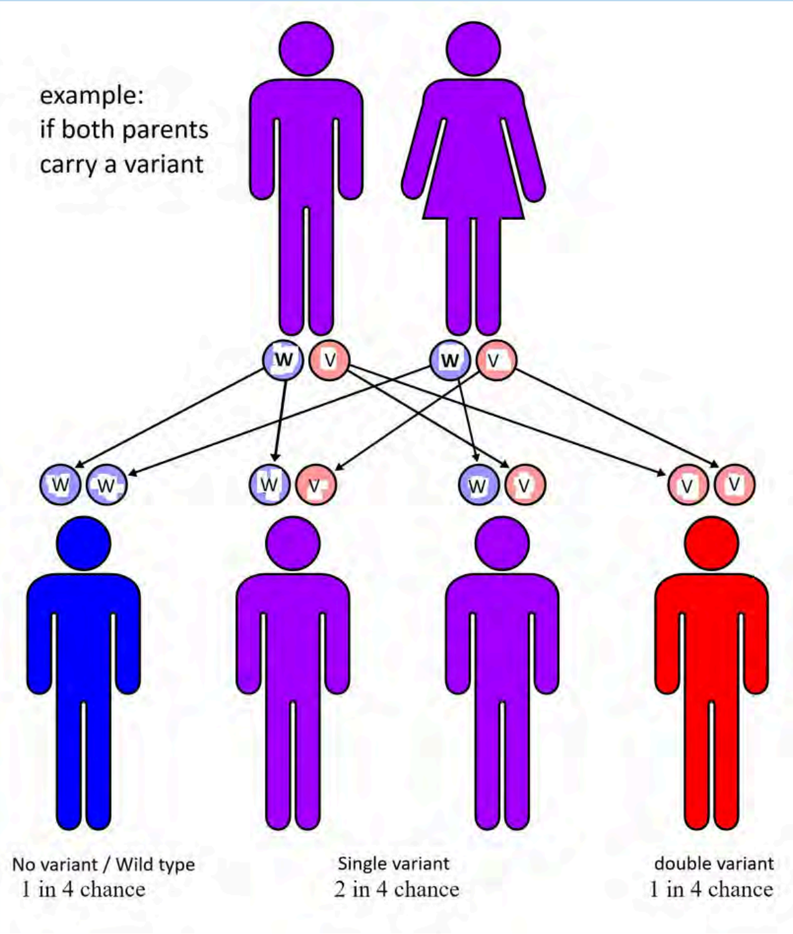
A gene gives your body instructions for how to work, grow, and stay healthy. It’s like a recipe that tells your body how to make specific proteins, which do important jobs like building your muscles, fighting infections, digesting food, growing and developing from birth through adulthood, and giving you your eye color.

When genes are working properly, they help your body develop and function normally. If there are differences in a specific gene (variations), it can affect how well that gene works, which can sometimes lead to health conditions.

This report shares the most important genes related to your health, your variations, and what to do about it.



How do you get Gene Variations? (Different versions of the same “recipe”)



How do you get gene variations (which present as green, yellow, or red dots on your report)?

Imagine your genes are like a recipe book. Each recipe has two pages—one from your mom and one from your dad. Together, these pages decide how well the recipe works to create the right result (a protein that helps your body function).

If both pages of the recipe are the “good” version, the result will be perfect. This is like getting a **green dot,** meaning the protein works as it should.

If one page is the “good” version and the other page is the “not-so-good” version, the recipe might not turn out quite right. This is a **yellow dot,** meaning the protein may not work perfectly.

If both pages are the “not-so-good” version, the recipe likely won’t work at all. This is a **red dot**, meaning the protein may not function properly and could cause problems.

More Information: What are Gene Variations? (Different versions of the same “recipe”)

Gene variations are like small changes to a recipe. Some changes don’t make much difference, some might even improve it, but others can cause the recipe to fail.

Let’s use an example:

Original Recipe: Chocolate cake using dark chocolate, which produces a rich, dark flavor (e.g., a "normal" version of a gene that works as expected). Aka: **“Green dot”**

Variation 1: Substitute dark chocolate with milk chocolate.

- Outcome: Produces a lighter, sweeter cake (e.g., a gene variation leading to a slightly altered protein function). Aka: **“Yellow dot”**

Variation 2: Add nuts to the cake.

- Outcome: Produces a nutty-flavored chocolate cake (e.g., a gene variation that adds a new characteristic to the protein). Aka: **“Yellow dot”**

Variation 3 (Malfunction): Forget to add sugar or bake at the wrong temperature!

- Outcome: Produces a flawed or inedible cake (e.g., a variation causing the protein to malfunction or not be made at all). Aka: **“Red dot”**

What is Epigenetics?
Identical Twins Case Study

How different lifestyles & nutrition affects your “recipes” or genes

Healthy Twin

The changes in gene expression (epigenetics) can be influenced by:

- Environmental factors (diet, stress, exercise, toxins)
- Behavioral factors (sleep patterns, lifestyle choices)
- Age and developmental stage
- Chemical exposure
- Physical conditions (temperature, altitude, etc.)

Unhealthy Twin

Epigenetics is the study of how your lifestyle and environment can affect how your genes work without changing your DNA itself. The genetic code stays the same, but things like environmental factors and your lifestyle choices can turn certain genes "on" or "off”.

For example, identical twins have the exact same genes, but as they live different lives, their genetic markers can become different, which is why they might develop different traits or health strengths or weaknesses over time.

Simply put, if one twin eats well, sleeps well, moves well, and minimizes exposure to toxins, her recipes will turn out great. If the other twin does the opposite, the recipes will turn out poorly.

Green, Yellow, & Red Dots Explained (Your genes or "recipes")

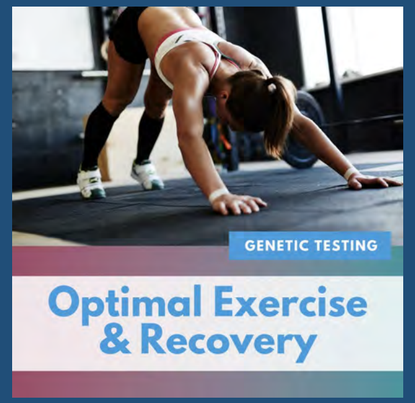
You will see that your report contains green, yellow, & red dots to explain your unique genetics.

A green dot = The most beneficial and least likely to cause a problem.

A yellow dot = Proceed with caution. The expression of this gene can shift to ***behave*** more "red-like" or "green-like" depending on what you eat & how you live (epigenetics).

A red dot = Can be the most problematic. Be ***extra focused on*** your nutrition, lifestyle, & supplement choices!

How to read your report



Gene function

Your Dot color with explanation of what it means

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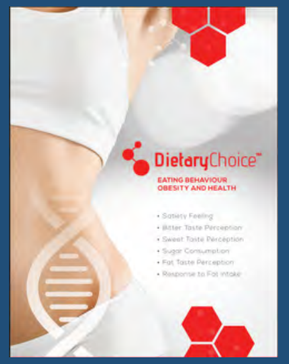
Note: This rectangular portion shows the name of subreport that contains all the genes used to summarize this slide in your Genetics+ Report).

You may be thinking, “Why are there subreports? Why can’t everything just be in one report?”

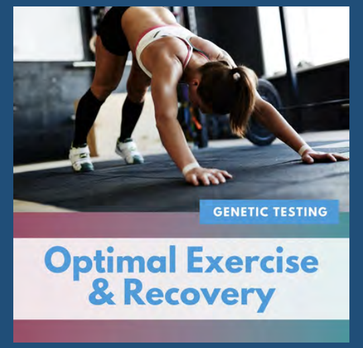
- The intent of the Genetics+ Report is to provide an actionable summary of your genes. Too often, genetic reports are overly complicated and overwhelming by including all the genes and their jargon. This report was designed to take action, not dig into the specific names and overly complex scientific jargon.
- If you want to see the specific genes and all the scientific jargon, including the citations/references, you can look at the subreports, namely the Health & Wellbeing Profile, ActiveChoice Profile, FoodChoice Profile, DietaryChoice/Behavior Profile, and Immune Health Profile.

This Fitgenes Genetic Blueprint is divided into sections based on which subreport the information is drawn from.

FoodChoice



DietBehaviour



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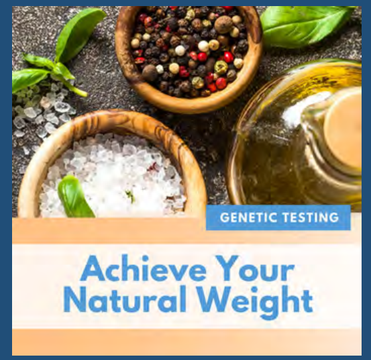
ImmuneHealth

ImmuneHealth



Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

Understanding Food Triggers

Gluten, lactose, salt, alcohol, caffeine, histamine, & food intolerances

FoodChoice

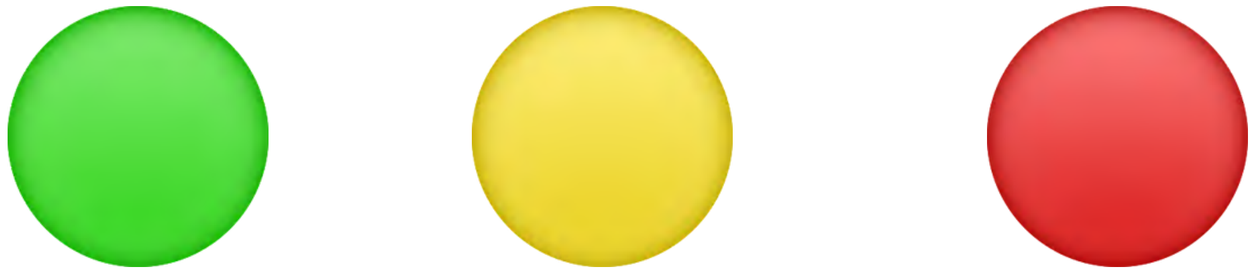
FoodChoice

Understanding Your Trigger Foods

Discovery your unique genetic relationship to food-based allergies, such as gluten, dairy, salt, alcohol, caffeine, & histamine.

KEY:

Beneficial	Less Beneficial	Least Beneficial
One or both of the genes in the pair contributes to the normal healthy functioning of the gene product.	One of the genes in the pair is contributing to a situation that impairs the healthy functioning of the gene product.	Both of the genes in the pair are contributing to a situation that impairs healthy functioning of the gene product.



FoodChoice

Understanding Your Trigger Foods

GLUTEN (Risk for Celiac Disease)

- Green dot
- Mnemonic for gluten-based grains "BROWS"
  - Barley, Rye, Oats, Wheat, Spelt
- Gluten-free doesn't automatically mean "healthy"
- "Eating Gluten-Free" resource from IFM

LACTOSE:

- "Genetically sensitive to lactose"
- Other issues with dairy: Casein, whey, chemicals & hormones
- Be honest with yourself and dairy products: How do you feel 30min - 3 hours after consuming dairy?

SALT: Blood pressure or water retention risk.

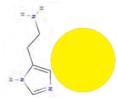
- Many factors contribute to high blood pressure and water retention. Salt is **a** possible factor, not necessarily **the** factor.
- "Genetically sensitive to salt"
- It's a potential, not guarantee of high blood pressure. Many factors contribute to high blood pressure.
- Salt sensitivity can also manifest as water retention.

ALCOHOL:

- "Genetically sensitive to alcohol"
  - Reduce or eliminate
- Be honest with yourself about alcohol.
- Consider non-alcoholic alternatives (seltzer, low-sugar kombucha)

CAFFEINE (e.g. coffee, tea, energy drinks, kombucha)

- Green dot
- Be honest with yourself about caffeine: Do you feel jittery, anxious, crave sugar, or moody 30min-2+ hours after drinking? Have affected sleep?
- Refer to caffeine chart on page 17 of FoodChoice official report to find lower caffeine options
- Decaf organic freeze dried option for flavor of coffee or herbal teas (non-caffeinated teas)



HISTAMINE TOLERANCE:

- "Genetically sensitive to histamine"
- Be honest with yourself about how you feel after eating: Do you experience headaches, itchy skin, runny nose, fatigue, hives, digestive issues, water weight (puffy weight)?
- Example of a low-histamine diet

FOOD ALLERGIES:

- "Genetically sensitive to food allergies"
- Consider doing the Elimination Diet to identify and remove reactive foods.

FoodChoice

Understanding Your Trigger Foods

GLUTEN:

You are a green dot. You are not genetically sensitive to getting celiac from gluten.

WHERE IS GLUTEN? REMEMBER "BROWS":
Barley, Rye, Oats, Wheat, and Spelt - these grains have gluten in them or are contaminated with gluten

THINGS TO REMAIN AWARE OF:

- People *without* the genetic vulnerability to celiac (like you) can still develop "non-celiac gluten-sensitivity", gut reactions, and/or intestinal problems
- Gluten-free foods tend to:
  - Not be automatically "good" for you
  - Contain additives like lectins and pesticides
  - Be higher carb and made from grains (ex. corn and rice) that spike blood sugars sometimes more than gluten-based grains themselves
  - Spike blood sugar so it's best to proceed with caution consuming "gluten-free" products

GLUTEN-FREE FOODS:
For a more comprehensive list of gluten-free foods, please check out this **"Eating Gluten-Free"** resource from IFM

Even someone with a green dot in gluten can be sensitive to gluten because of the pesticides used in inorganic agriculture and/or other lectins in gluten-based products aside from gluten. Basically, there are other factors in gluten-based grains that may also cause digestive problems or health concerns, even though you may have a green dot.

FoodChoice

Understanding Your Trigger Foods

LACTOSE:

You are genetically at high risk of lactose intolerance.
You should avoid dairy products.

BE HONEST WITH YOURSELF: Do you get bloated, tired, foggy-brained, gassy, nauseous, mucusy, or diarrhea within 30 minutes to a few hours of taking dairy products? If so, consider avoiding or minimizing dairy consumption.

HIGH QUALITY DAIRY: If you are going to have dairy, aim for clean, organic, pasture-fed, full-fat milk products. Not all dairy is created equal. For example, pure ghee has no lactose, casein, or whey: It's just the purified milk fat.

DAIRY ALTERNATIVES: If you are sensitive to other molecules in dairy, try coconut-based or cashew-based 'dairy' products. For example, Miyoko's-brand 'butter' is based on coconut oil, cashews, and sunflower oil, and is essentially indistinguishable from butter in flavor and texture.

LACTOSE-CONTAINING FOODS:

This chart from the FoodChoice report details the general amount of lactose in the most popular dairy products.

Food	Per 100g	Per Serving Size
Whey	39g - 75g	7.8g - 15g per 20g
Milk powder	36g - 52g	13g - 19g per 35g
Condensed milk	10g - 16g	5.5g - 8.8g per 55mL
Milk (low and full fat)	4g - 5g	10g - 12.5g per 250mL
Chocolate milk	4g	10g per 250mL
Cream	4g	1.6g per 40mL
Yoghurt (whole milk)	4g	8g per 200g
Ice cream	3g - 8g	2.25g - 6g per 80mL
Buttermilk	3g - 5g	7.5g - 12.5g per 250mL
Low fat yoghurt	2g - 7g	4g - 14g per 200g
Whipping cream	3g	1.2g per 50mL
Ricotta cheese	1g - 5g	1.2g - 6g per 120g
Cottage/cream/mozzarella cheese	1g - 3g	0.5g – 1.5g per 50g
Butter	0.5g - 1g	0.1g - 0.2g per 20g
Feta cheese	0.5g	0.15g per 30g
Cheddar cheese	0.1g	0.03g per 30g
Brie/camembert/parmesan/ gruyere cheese	0.1g - 1g	0.03g - 0.3g per 30g
Swiss cheese	0g - 3g	0g - 1g per 30g
Gouda cheese	0g - 2g	0g - 0.6g per 30g

FoodChoice

Understanding Your Trigger Foods

ALCOHOL:

You are genetically more likely to be sensitive to alcohol toxins.

QUOTING THE REPORT: "It is well-known that alcohol does not affect everybody the same way, as it depends on a number of factors: how fast you drink, your food intake, your weight, sex and age, and, of course, your genetics."

AVOID ALCOHOL:

- You are genetically at risk of being less efficient at metabolizing alcohol.
- It is best that you cut alcohol down and even out completely, as you are genetically at risk to alcohol being more difficult to detox.

Possible Alternatives to alcohol:

- Kombucha (not the ‘hard’ kombucha, which is basically alcoholic).
  Real kombucha contains a fraction of the alcohol found in beer.
  Watch out for high sugar kombucha (over 4 grams of sugar per serving).
- Mocktails, Non-alcoholic wines, and non-alcoholic beers.
- Sparkling water, mineral water with lime or mint, ginger beers

FoodChoice

Understanding Your Trigger Foods

CAFFEINE (Coffee, black tea, green tea, energy drinks, etc.)

You are a green dot.
You are genetically at low risk of "caffeine-induced anxiety/depression".

SMART CONSUMPTION: Please be mindful of your caffeine intake if you choose to continue using it. Here's a few tips for being smart about caffeine:

- **TIMING:** No caffeine after 2pm, as it may affect your sleep.
- **AMOUNT:** Pick your caffeine quantity carefully. See the chart to the right.
- **QUALITY:** Enjoy high-quality coffee, as poor-quality coffee can contain mold. Find brands that do independent mold testing.

BE HONEST WITH YOURSELF: Too much caffeine can really trigger cortisol (stress hormone). Do you notice if you're feeling more anxious, nervous, jittery, craving sugar, more easily annoyed, lower mood, or have an energy crashes anywhere from 30 minutes to 3+ hours after having caffeine? If so, please limit your caffeine usage.

COFFEE ALTERNATIVES: Dandelion, burdock, or chicory teas. If you love the taste of coffee, consider using freeze-dried, organic, Swiss-water method decaffeinated coffee: It has ~1-2% the caffeine of regular coffee. However, decaf coffee still has histamine, so be mindful if you are sensitive to histamine. You may want to use an herbal tea instead of coffee.

NOTE: The caffeine content in food and drinks varies. Use this table to find the approximate amount of caffeine you consume.

Drink or Food	Per Serving Size
Coffee from a café/takeaway (1 shot)	113mg - 282mg per 250mL
Espresso or Short Black	~107mg/1 shot
Instant Coffee	60mg - 80mg per 250mL
Iced Coffee*	30mg - 200mg per 500mL
Black Tea i.e. English Breakfast	25mg - 110mg per 250mL
Energy drinks with caffeine*	~80mg per 250mL
Oolong Tea	50mg - 75mg per 250mL
Green Tea	30mg - 50mg per 250mL
White Tea	30mg - 55mg per 250mL
Cola soft drinks*	36mg - 48mg per 375mL
Dark Chocolate	43mg per 100g
Milk Chocolate	20mg per 100g
Hot Chocolate	5mg - 25mg per 250mL
Decaf Coffee	2mg - 12mg per 250mL

FoodChoice

Understanding Your Trigger Foods

SALT:

You have a high risk of salt contributing to high blood pressure and/or water retention.

BLOOD PRESSURE: If high blood pressure is a concern or an emerging issue, the key is to monitor and address the multiple factors that contribute to high blood pressure. Additionally, having a genetic risk of salt affecting blood pressure does **not** guarantee that you have or will develop high blood pressure. See

WATER RETENTION: Variations in the salt genes can also manifest as water retention, in addition to, or instead of, high blood pressure.

MONITORING: If you are monitoring blood pressure, one option is to use a digital blood pressure machine that tracks results and syncs them to a smartphone. You can use it after you wake up and go to the restroom to empty your bladder. Place the machine in the same location and take it at the same time each morning, three times in a row. Measure your blood pressure at least three times a week in this manner for one to two months to collect a substantial amount of data for assessment.

QUALITY SALT: Avoid all the extremely high salt content found in processed foods. Celtic Sea Salt is found online and in most health food stores. Typical table salt is about 98% sodium chloride, while Celtic Sea Salt is about 70% sodium chloride and the other approximate 30% contains important trace minerals. Celtic Sea Salt has come under scrutiny recently for heavy metal contamination, so work with your practitioner to find contaminant-free salt options. If needed, there is “Potassium Salt” which is salt without the sodium if you and your practitioner feel it’s appropriate, and you monitor potassium levels.

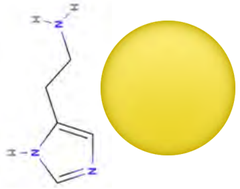
Factors affecting blood pressure

There are many contributors to increased blood pressure aside from salt, like chronic stress, excess weight, smoking, alcohol consumption, low potassium, sleep apnea, thyroid issues, adrenal issues, shorter height, kidney issues, lack of exercise, and other factors.

BE AWARE: “Himalayan” salt can often contain high amounts of aluminum and may be deceptively labeled as "Pink salt,” which is simply regular salt dyed pink, not genuine Himalayan salt.

FoodChoice

Understanding Your Trigger Foods



HISTAMINE TOLERANCE:

You are a yellow dot. You are at risk of histamine sensitivity.

Aim to consume low-histamine foods.
Limit/reduce HIGH histamine-containing foods.

BE HONEST WITH YOURSELF: After meals, do you experience any of the following?

- Headaches
- Itchy skin
- Runny nose
- Fatigue
- Hives
- Digestive issues
- Water weight (puffy weight) gain

If so, your body may be trying to tell you that you're having a problem metabolizing the foods you're eating. Even though you're a yellow dot, you can still experience histamine intolerance and should aim to limit or reduce your exposure to high-histamine-containing foods.

***IMPORTANT NOTE:** The foods listed are strictly from a low/high histamine lens. Food is complicated. For example, milk may be low in histamine, yet you still may have OTHER reasons to reduce/avoid dairy.

*Long-stored nuts are any nuts older than ~6mo.

	Food/Beverage	
LOW histamine containing foods	• *Certain fresh/frozen fish • *Eggs • *Fresh meat • Fresh fruits and vegetables • *Grains	• *Fresh pasteurized milk • Most cooking oils • Most leafy herbs • Most fruit juices without citrus fruits • Herbal teas
HIGH histamine containing foods	• *Alcohol • Avocado • *Beans and pulses • Chocolates and cocoa • *Eggplants • *Long-stored nuts • *Matured cheeses • Pickled/canned foods	• Rice vinegar • Ready-to-eat meats • Salty snacks • Seitan (vegan meat) • *Shellfish • Smoked meats • Sweets with preservatives and artificial coloring
Foods that INCREASE histamine release in the body	• Additives • Bananas • Chocolate/cocoa • Citrus fruits • Kiwi • Legumes • Mushrooms • Papaya	• Peanuts • Pineapple • Plums • *Tomatoes • Vinegars • Walnuts • Wheat germ
Foods that BLOCK histamine removal	• Alcohol • Black tea • Coffee/caffeine	• Energy drinks • Green tea

FoodChoice

Understanding Your Trigger Foods

FOOD ALLERGIES:

You are a yellow dot. You have a moderately increased risk for food allergies.

DISCLAIMER! While you carry certain genetic risk markers for food allergies, **this does not necessarily mean that you currently have or will ever develop any food allergy**.

The most common food allergies are:

Fish Eggs Wheat Soy Shellfish Dairy Peanuts/ Tree Nuts

A food allergy is an immune system response to a food protein that the body mistakenly believes is harmful.
When you eat food containing that protein, the immune system releases immune proteins, triggering symptoms that can affect your gastrointestinal tract, skin, breathing and/or heart.

BE HONEST WITH YOURSELF: After eating, do you experience hives, swelling of the lips/face/eyes/tongue, vomiting, abdominal pain, difficulty breathing, dizziness or sudden collapse? If you experience any of these signs, you may have an urgent allergic response that requires medical attention.

A note on eggs: Remove eggs last, if even needed. Buy the highest quality (pasture-fed, free-range, organic) eggs you can. It can be worth the money. Eggs are really convenient and nutritious if you don't have an overt allergy to them. Many signs of egg intolerance may be due to poor-quality eggs. If you do have reactions to high-quality eggs, then you will have to remove them.

I**f you don't have these signs**, yet just feel fatigue, brain fog, indigestion, or low mood over the next few days, **you may have an intolerance, not a severe reaction.**

If you are concerned about food intolerances, one possible step is to look at gut health and do an elimination diet such as removing the seven most 7 common allergens above. Additionally, consider running food intolerance panels, which are blood tests that check for immune reactions to dozens or even hundreds of foods.

Your Genes for “Trigger foods”

Key references can be found in the official reports. All gene-specific references can be found in Pracware – accessible only to your practitioner.

Note: Genetics is an ever-evolving science. There may be additional genes that emerge in the future, which could be significant to a specific gene or gene cluster

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#	Gene	rsID	Your Result			
Coeliac Disease - FoodChoice - Intolerance and Sensitivities						
1	HLA-DQB1	rs7454108	TT	🟢		
2	HLA-DQA1	rs2187668	GG	🟢		
Lactose Intolerance - FoodChoice - Intolerance and Sensitivities						
3	LCT	rs4988235	CC			🔴
Alcohol Intolerance - FoodChoice - Intolerance and Sensitivities						
4	ALDH2	rs671	GG	🟢		
5	ADH1B	rs1229984	TC		🟡	
Caffeine Sensitivity - FoodChoice - Intolerance and Sensitivities						
6	CYP1A2	rs762551	AA	🟢		
7	ADORA2A-1	rs2298383	CT		🟡	
Salt Sensitivity - FoodChoice - Intolerance and Sensitivities						
8	AGTR1	rs5186	CA		🟡	
9	AGT	rs699	TT	🟢		
10	ACE	rs4343	D/D			🔴
Histamine Intolerance - FoodChoice - Intolerance and Sensitivities						
11	DAO-2	rs1049793	GC		🟡	
12	HNMT-2	rs11558538	CC	🟢		
13	DAO-1	rs2052129	CC	🟢		
14	HNMT-1	rs1050891	TT			🔴
Food Allergies - FoodChoice - Intolerance and Sensitivities						
15	IL4/KIF3A	rs11949166	TT			🔴
16	HLA-DQB1-2	rs9273440	CC			🔴
17	C11orf30/LRRC32	rs2212434	TC		🟡	
18	SERPINB7	rs12964116	AA	🟢		
19	SERPINB7/B2	rs1243064	TT	🟢		
20	FLG-AS1	rs12123821	GG	🟢		

The intention of this action summary report is to focus on practicality, instead of being overwhelmed with lots of jargon. For quick reference, the key genes from the Fitgenes subreports selected to assess the summary action slides in this section are listed. For more details on specific genes and key references & citations, please refer to the specific Fitgenes report.

Rewiring Eating Behaviors

How genes influence your satiety (feeling full)
Taste for bitter, sweetness, and fat
The volume of sugar consumption
Fat metabolism

DietBehaviour

DietBehaviour

Rewire Your Eating Behaviors

SATIETY FEELING:

You are a yellow dot. You are genetically at risk of NOT feeling satiated (full) after eating normal amounts of food.

Fullness is in the brain…not the stomach. It's the signal from the stomach to the brain that triggers fullness.

The feeling of satiety is defined as the feeling of fullness after eating. Some feel full after eating relatively small amounts of food, while others overeat what is necessary and still don't feel satisfied.

Lack of satiety after eating is linked to increased risk of weight gain, particularly in a food-rich environment.

CLARITY: You are a yellow dot, meaning you are genetically less likely to **feel full and satiated after eating a normal amount of food**. The reality, though, is that you may always have this feeling of "less full" compared to those with green dots. However, you can utilize the recommendations to the right to work *with* your genetics and help minimize overeating.

BE HONEST WITH YOURSELF: Do you feel satisfied after eating? Or are you constantly trying to satisfy your hunger after meals, feeling like a "bottomless pit"?

If you have a tendency to overeat, it is easier to control your environment,
…Not your willpower

RECOMMENDATIONS if you don't feel satiated:

1. Consume **higher fat/protein/water-rich meals**, lower carbohydrate rich meals
2. Increase **fiber** intake
3. Do not eat until full! **Wait ~10min after finishing a meal** to allow your body enough time to trigger the feeling of 'fullness' before getting more food
4. **Avoid** watching TV or social media or other **electronics while eating**
5. Take 3-5 **deep breaths** before eating
6. **Chew** your food more (chew for 3 full breaths per mouthful of food)
7. Establish **3 distinct meal times** (do not skip meals)
8. **Avoid snacking** in between meals

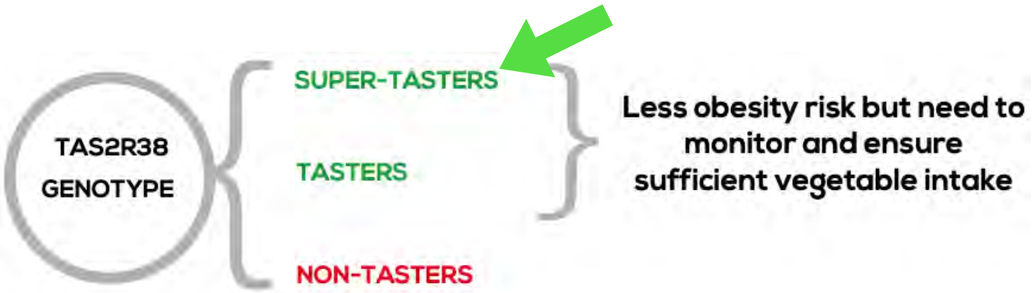
Rewire Your Eating Behaviors

DietBehaviour

BITTER TASTE PERCEPTION:

You are a green dot and a "super-taster" aka "bitter-disliker".
You are very genetically likely to perceiving foods as "bitter" tasting.

There are 3 main classes of tasters:



CLARITY: Everyone perceives bitterness differently and thus has different food preferences. Based on your genes, you are considered a **"bitter-disliker"**.

PRO: You have a decreased risk for obesity and are more likely to have improved weight control because you tend to avoid high-caloric bitter foods and drinks (*think alcohol and chocolate*).

CON: However, this also means that your intake of cruciferous and other vegetables may be generally **lower** than those with a yellow or red dot for bitter taste.

Bitter Foods Can Include:

- Green leafy vegetables: Chicory, chard, endive, artichokes, lettuce, radicchio, arugula, kale,
- Cruciferous vegetables: Broccoli, cabbage, Brussels sprouts, cauliflower, rutabaga
- Other: Asparagus, rhubarb, tomatoes, uncured olives, cucumbers, pumpkins, melons, mushrooms, limes, grapefruit, ginger, oranges, chocolate, dandelion



Bitter Drinks Include:

- Beer, red wine, coffee, tonic water

Technical Note: since both super-tasters (those homozygous for the reference variant) and tasters (those heterozygous for the variant) are considered to be sensitive to the bitter taste, there is no "Less Beneficial" result in this category

DietBehaviour

Rewire Your Eating Behaviors

BITTER TASTE PERCEPTION:

You are a green dot and a "super-taster" aka "bitter-disliker".
You are very genetically sensitive for perceiving foods as "bitter" tasting.

Here are 4 ways to make healthy bitter vegetables more palatable:

- Add olive oil or ghee + Celtic sea salt to steamed veggies

- Use different herbs and spices to help override bitter taste bud receptors by stimulating savory, salty or sour taste receptors
  - Try: basil, coriander, garlic, ginger, lemon juice or salt

- Add heat to mask bitter tastes
  - Try: black pepper, red chili flakes, cayenne or chili powder

- Stir-fry chopped onion with garlic in a pan first before adding your veggies

***Note**: Avoid cooking with lemon juice as this can make your food taste more bitter. Put lemon juice on meals <u>after</u> cooking, not while cooking.

DietBehaviour

Rewire Your Eating Behaviors

BITTER TASTE PERCEPTION:

You are a green dot and a "super-taster" aka "bitter-disliker".
You are very genetically sensitive for perceiving foods as "bitter" tasting.

But what if you "like" bitter foods, even though your genes say you likely shouldn't like bitter foods? Below are 3 major reasons why you may like some or many bitter vegetables:

- Modern vegetables have been bred to be sweeter than normal
- You already cook in one or more of the 4 ways mentioned before to lessen the bitter taste.
- You have a positive emotional relationship with the history of that vegetable (e.g. it was my 'favorite food that was made for me growing up').
  - An example of the opposite of positive emotional relationship with foods are people with bad 'aviation-themed' memories about certain vegetables. Think, "Here comes the plane!" - referencing being force-fed Brussels sprouts as a kid.

Rewire Your Eating Behaviors

DietBehaviour

SWEET TASTE PERCEPTION:

You are a yellow dot: genetically likely to be a "sweet-liker" and crave sweet flavors.

Be mindful of your sweet food intake, and watch the amount of alcohol you are consuming. If you start consuming less sugar, you might eventually become more sensitive and therefore you could increase your sweet tasting ability.

There are 3 main classes of tasters:

You have a <u>increased</u> risk for obesity and to drink alcohol because you are moderately sensitive to sweet tastes.

Alternatives to sugar-based or artificial sweeteners:

Monk fruit extract, Xylitol, Organic Stevia, glycine powder

If you crave sweets:

- Look at your regular meals to see if they need more protein and/or fat
- Reach for foods that have higher protein/fat content (i.e. avocado, nut butter) or higher crunch (i.e. carrots)
- Look at other reasons you may be craving sweets (see next page).

Foods that may help fight off sugar cravings (Note: If you are sensitive to histamine, not all these foods may be appropriate, like chocolate or certain fish):

- Proteins: e.g., Meat, poultry, fish, eggs,
- Soaked Chia seeds
- Vegetables and fruits (warning: too many fruits can be problematic because of the fruit sugar).
- Dates, prunes (Warning: Eating too many dried fruits may be counterproductive from high fructose)
- Dark chocolate (>70%)
- Legumes, whole grains (especially if consumed w/fat)
- Sweet potatoes

Herbs that may help fight sugar cravings:

- Gymnema, Cinnamon, Fenugreek, Kudzu, Berberine

Rewire Your Eating Behaviors

DietBehaviour

SUGAR CONSUMPTION:

You are a green dot. You have a decreased risk for over-consuming sugar.

Sugar contains little nutritional benefit and is high in calories. Some people prefer sweeter-tasting foods and beverages as a result of the expression of the sweet taste gene (called GLUT2) that acts as a glucose sensor in the brain.

CLARITY: You are **not likely** to prefer a high-sugar diet and thus have a decreased risk for obesity and other chronic issues (diabetes, cardiovascular diseases, tooth decay, & accelerated aging).

BE HONEST WITH YOURSELF: Do you prefer sweetened beverages, candies, baked goods, and other foods or more neutral/savory ones?

Aim to consume less than 5% (<25g) of your daily total intake of free sugars. In general, the less sugar you eat, the better off you'll be.

Avoid other high-sugar foods, such as sweetened condensed milk, grape juice, sugar-sweetened beverages like soda, pre-packaged pastries, commercial candies, fortified yogurt, fast food, cereal bars, and commercial ready-to-eat cereals.

BE HONEST WITH YOURSELF: If you are consistently overeating sugar or are binging, or find yourself adding sweeteners to foods, consider the following:

1. Are you **emotionally eating**?
2. Do you have an **underlying metabolic disorder** that is causing blood sugar fluctuations, imbalances, and unwanted cravings?
3. Do you have an **underlying gut infection** like Candida that is tricking your body into wanting more sugar than it actually needs?
4. Do you have **mineral or nutrient deficiencies** disguised as sugar cravings?
5. Do you have **Mitochondrial damage** which limits your ability to burn fat as a fuel source; therefore, the body craves more sugar.

Work with your practitioner to find potential resources to help with emotional eating and potentially functional testing to identify underlying issues that may contribute to any sugar cravings.

DietBehaviour

Rewire Your Eating Behaviors

FAT TASTE PERCEPTION:

You are a red dot. You are genetically most likely to have a low perception of the taste of fats in your foods.

This means you are much more likely to consume more fat in your overall diet because you are genetically very likely to not taste fats well in your food (therefore, you are more likely to add more fat to taste fat in your food).

Fats are one of three macronutrients essential to human life. There are multiple types of fats that have different effects on the body; some are anti-inflammatory while others are pro-inflammatory.

After eating fatty foods or a fatty meal, taste receptors on the tongue help us perceive the taste of those fats through texture, olfaction, and oral irritation. How we perceive the taste of fat ultimately affects how much fat we consume.

CLARITY: You You genetically have a higher likelihood of a low fat taste perception and are **likely to consume more fat** in your overall diet.

DietBehaviour

Fats aren't 'bad' per se. Choose healthier fats (in green below) instead of toxic industrial fats (in red)

PRACTICAL: Choose cleaner fats. Aim for organic as much as possible because oils are the most fragile and prone to contamination by toxic chemicals and heavy metals. For animal-based fats (tallow, ghee, dairy, lard), ideally pick **organic** and **pasture-fed**.

Type of Fat	Sources
Monounsaturated fats (MUFAs)	Olive oil, macadamia nut oil, avocado oil/avocados, lard* Nuts: cashews, almonds, macadamias, pecans
Polyunsaturated fats (PUFAs)	[Low heat cooking]: Sesame oil, grapeseed oil [Do not heat]: Fish oil, flax oil, hemp seed oil Nuts: Brazil nuts, pine nuts, walnuts**
Saturated fats (SFAs)	Coconut oil, tallow, palm oil, ghee, high-fat dairy foods and butter (if you can tolerate dairy)
AVOID at all costs: Trans fats	Margarine, copha, vegetable spreads, packaged foods***
Other oils to AVOID: Post-industrial fats that never existed before & easily rancid oils	Soy, corn, canola, peanut, safflower, cottonseed, walnut, "vegetable", refined palm, rice bran, shortening, hydrogenated oils and spreads, deep fried oils, old oils, reused oils

*Technically lard is a monounsaturated oil because MUFAs are the majority of the fats in lard.

**Walnuts go rancid very easily. Be veyr picky about the freshness of walnuts and avoid eating heated or bake walnuts.

***Many packaged foods that say "0 grams of trans fats per serving" are exploiting a technical food label law (dependent on country) that allows companies to legally put trans fats into their products and use this labeling as long as their food products have <0.5g of trans fats *per serving*. Notice the labels don't say 0 grams of trans fats...it's 'per serving', which the food companies determine what a 'serving' is. This means you can have 0.45g of trans fats 'per serving' and still be able to label your procssed food as "0 grams of trans fats per serving".

Be Friendly to Your Fats: When & How Fats Go Bad and how to protect your fats from going bad

DietBehaviour

- **Light:** Keep all oils and fats out of sunlight and light exposure. Solid fats like ghee and tallow are more stable against light, yet it's still best to keep them out of light.
  - **Especially avoid buying liquid fats (e.g., olive or hemp seed oil) in clear bottles.**

- **High heat:** Some oils are more resilient to heat than others (e.g. saturated fats are more resilient).
  - **Avoid deep frying and prolonged high heat in cooking.**

- **Time:** Oils go bad over time. The more saturated the more stable the oil over time. The more unsaturated the more unstable over time.
  - **Regularly use up and replace your oils.**
  - **Use or discard all opened liquid oils within 6 months.**

- **Air:** Oxygen will damage ("oxidize") oils, especially poly- and monounsaturated oils.
  - **Ensure oils are kept tightly sealed from air and, if necessary, transferred to smaller glass containers when the oil runs low.**

- **Plastic:** In chemistry, "like dissolves like". Meaning, water-soluble compounds will dissolve in water, and fat-soluble compounds will dissolve in fat.
  - Plastic is made from petroleum (oil) therefore oils kept in plastic containers will leach petrochemicals into the oil.
  - As a general rule, the softer the plastic the more it will leach into oil.
  - **Buy oils in dark glass containers (ideal) or food-safe hard plastic.**
    Note: The more you heat plastic the more it will leach.

- **Toxic Exposure:** Most pesticides, insecticides, petrochemicals, industrial chemicals, and heavy metals dissolve in fat. You can wash the outside of a carrot but you can't wash coconut oil.
  - **Buy oils that are organic and not industrially extracted with hexanes.**

Rewire Your Eating Behaviors

DietBehaviour

RESPONSE TO FAT INTAKE:

You are a green dot. This implies that you are more genetically able to consuming higher concentrations of saturated fats relative to mono- and polyunsaturated fats compared to yellow and red dot individuals.

Different people have different responses to fat intake. Some people will eat fat and **easily absorb** it into their system, others will eat fat and **not absorb it as much**.

There's a lot of confusion as to whether or not high absorption of fat is a good or bad thing. It's analogous to "Is salt a good thing or bad thing?" and the answer is that it depends on one's current health state, health goals, physical activity, lifestyle, and genetics.

Higher fat absorption could **beneficial** when considering the following variables because individuals with these variables **use fat well**:	Higher fat absorption could be **problematic** when considering the following variables because individuals with these variables **don't use fat as well**:
Active/high movement lifestyle	 Sedentary/low movement lifestyle
 Eat really healthy fats consistently	 Eat unclean and/or highly processed fats frequently
 Burn fat efficiently in the mitochondria	 The process to burn fat is impaired, e.g: Difficulty shuttling fat to the mitochondria to be burned or the mitochondria itself is impaired/ damaged and can't burn fat efficiently

Key references can be found in the official reports. All gene-specific references can be found in Pracware – accessible only to your practitioner.

Note: Genetics is an ever-evolving science. There may be additional genes that emerge in the future, which could be significant to a specific gene or gene cluster

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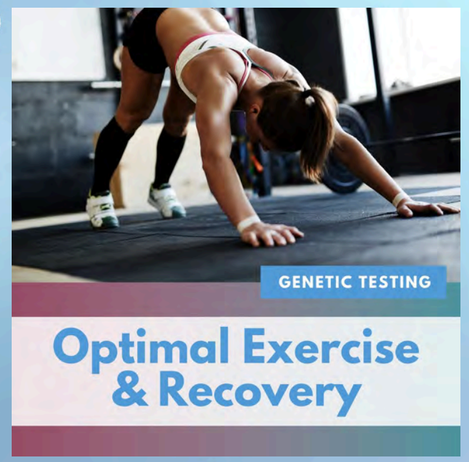
Your Eating Behavior Genes

#	Gene	rsID	Your Result			
Satiety Feeling - DietaryChoice						
1	LEPR-1	rs1137101	AA	🟢		
2	MC4R	rs12970134	GG	🟢		
3	FTO	rs9939609	AA			🔴
Bitter Taste Perception - DietaryChoice						
4	TAS2R38-1	rs713598	CC	🟢		
5	TAS2R38-2	rs1726866	CC	🟢		
6	TAS2R38-3	rs10246939	CC	🟢		
Sweet Taste Perception - DietaryChoice						
7	TAS1R2	rs12033832	AG		🟡	
8	TAS1R3	rs307355	CC	🟢		
Sugar Consumption - DietaryChoice						
9	GLUT2	rs5400	CC	🟢		
Fat Taste Perception - DietaryChoice						
10	CD36	rs1761667	AA			🔴
Response to Fat Intake - DietaryChoice						
11	PPARγ	rs1801282	CC	🟢		

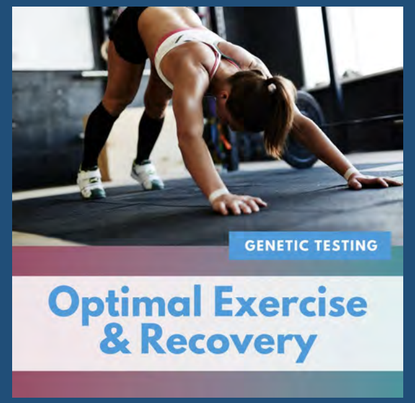
Exercise:

Speed vs. Endurance
VO2 Max & Aerobic Capacity
Injury Risk



ActiveChoice™

Exercise & Recovery



ActiveChoice™

Speed vs. Endurance

The ACTN3 gene codes for muscle-fiber types: Fast-, Intermediate-, & Slow-twitch

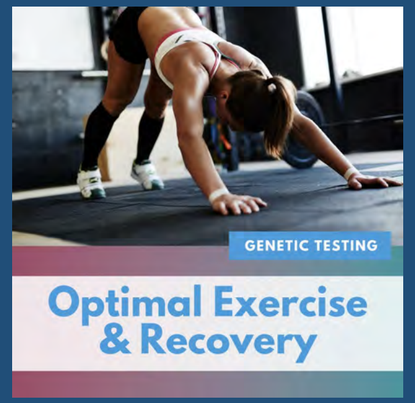
The green dot codes for more fast-twitch fibers, therefore more explosive contractions (e.g. sprinting)
The yellow dot is considered a more 'mixed' fiber type with a tilt towards sprinting-like activities.
The red dot has fewer fast-twitch fibers, optimized for more endurance activities.

Yellow dot = Genetically More Intermediate-Twitch fibers.

You are genetically considered more of a "mixed fiber" type, yet genetically tilt towards more potential for power/sprint exercises

- **Green dots are Fast Twitch** = most optimally suited for sprint and power exercises if they want to make the most of their innate genetic abilities.
- **Yellow dots are Intermediate Twitch** = a mixture of power and endurance, but with more emphasis on power.
- **Red dots are Slow Twitch** = most suited to endurance activities if they want to make the most of their innate genetic abilities.
- **NOTE: Your dot color still allows you to do other exercises.** The color of your dot indicates what activities you are genetically more likely to perform naturally at a higher level on average compared to other dots. Your dot color does not exclude you from activities outside your genetic predisposition, but your performance may be limited.
- Re: Red dot/Endurance individuals may have to work harder to achieve high-performing sprint activities, and may have a higher risk of injuries in sprint activities, while Green dot/Power individuals will struggle to achieve high performance in endurance activities. Individuals with a yellow dot will be more likely to excel at mixed activities, yet not at any individual sport.

- **Practical applications:** The following are general guidelines for healthy exercise, yet all are best customized to you under direct supervision from a healthcare professional to fit your specific needs: such as your biomechanics, exercise history, mobility, structural capacity, physical limitations, personal physique, athletic goals, & other factors.
  - **2-3x/week of safe HIIT** (High Intensity Interval Training) with at least 1 day off in between for recovery.
  - **Regular daily movement,** such as walking, Tai Chi, Qi Gong, biking, etc.
  - **Varying types of exercise to train and access different movem**ent patterns and muscle groups.
  - **Train safely** in both High Intensity and Endurance, regardless of dot color



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Exercise & Recovery

VO2 Max & Aerobic Capacity

Green dot: You are overall a 'green dot' in your VO2 Max and Aerobic Capacity. You are genetically more likely to have a comparatively higher capacity for VO2 Max and Aerobic Capacity compared to others with overall yellow or red dots.

VO2 max measures the maximum amount of oxygen your body can use during intense exercise.

When you breathe, oxygen travels through your bloodstream to your muscles, allowing them to keep working during activities like running or cycling.

Having a higher VO2 max shows that your heart, lungs, and muscles are working efficiently together.

It also means your muscles are better at storing glucose (a type of sugar) for energy, which is important because glucose is the main fuel source for your muscles during exercise.

Those with a higher VO2 max are at lower genetic risk for developing long-term health problems.

Exercise that improves VO2 max can help protect your overall health.

- **Practical applications:** The following are general guidelines for healthy exercise, yet all are best customized to you under direct supervision from a healthcare professional to fit your specific needs: such as your biomechanics, exercise history, mobility, structural capacity, physical limitations, personal physique, athletic goals, & other factors.
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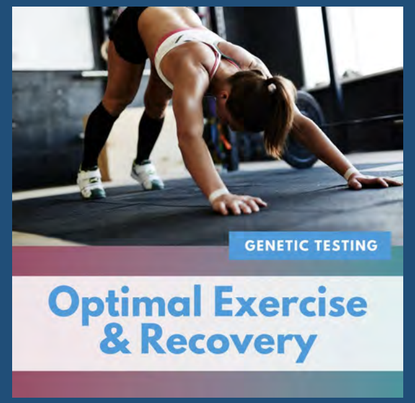
  - **Train safely** in both High Intensity and Endurance, regardless of Dot color.

Exercise & Recovery



ActiveChoice™

Injury Risk

Collagen Components:

Collagen acts like the body's natural glue and scaffolding. Collagen helps make your skin, ligaments, bones, tendons, and muscles strong and gives them their shape.

Red dot: Your collagen genes have a greater risk of not being protective of your musculoskeletal system from soft tissue injuries, and potentially much less inflexible and poorer mobility.

Exercise-induced inflammation and muscle injury

Too much exercise can cause inflammation and an increased risk to muscle injury. Genetic variations (yellow or red dots) can increase the risk of more inflammation from exercise, requiring longer recovery and rest between training sessions.

Red dot: Indicates a much increased risk of inflammation from exercise and risk of exercise-induced muscle injury.

- **Practical applications:**

  The following are general guidelines for healthy exercise, yet all are best customized to you under direct supervision from a healthcare professional to fit your specific needs: such as your biomechanics, exercise history, mobility, structural capacity, physical limitations, personal physique, athletic goals, & other factors.

- **Warm-up** before athletic activities
- **Diet/supplements for injury prevention**, such as an anti-inflammatory diet and collagen-based foods or supplements.
- **Post-exercise recovery strategies,** such as swimming, yoga, stretching, walking, saunas, cold plunges, etc.
- **Regular daily movement**, such as walking, Tai Chi, Qi Gong, biking, etc.
- **Avoid overtraining**: Avoid doing intense exercise too many times in a week. E.g. Limit HIIT to 2-3x a week with at least a day in between for recovery.
  - Schedule daily movement on the off-days during the time that would be otherwise allocated to HIIT.

More on Daily Movement

Key Potential Benefits to Daily Movement:

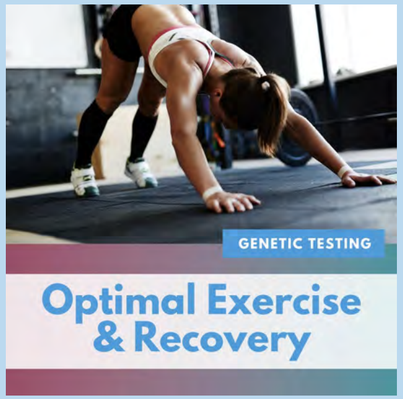
- Boosts immune system function
- Helps maintain a healthy weight
- Promotes better sleep quality
- Improves focus and concentration
- Reduces stress, anxiety & depression
- Keeps joints flexible & muscles strong
- Maintains healthy blood flow, circulation & energy levels
- Reduces risk of chronic diseases like diabetes and heart disease

Tips to get yourself in the habit of moving your body every day.

- Start by choosing activities you enjoy
- Set daily reminders on your phone or device.

- **Aim for 10,000 steps per day for adults ages 18-59 years old.**
  - Please note that this recommendation is intended as a starting point, acknowledging that individuals have different fitness levels. Work with your practitioner on customizing a movement practice that best suits you.
  - If you're experiencing pain or find walking difficult, please adjust the recommendations to suit your current abilities, or choose an alternative activity that is more manageable, such as swimming, biking, Tai Chi, or Qi Gong.
  - For those who find this routine too easy, feel free to increase the intensity based on your personal goals and fitness needs.
  - Always remember to listen to your body, and progress at a pace that suits your abilities. It's also important to warm up before starting and cool down afterward to prevent injuries.
- Invest in good quality walking shoes that you love.
- Listen to music or podcasts to help the time pass quickly.
- Walk with a friend or a pup that you enjoy!
- Go somewhere new to keep it exciting and fresh.

Your Exercise Genes



Key references can be found in the official reports. All gene-specific references can be found in Pracware – accessible only to your practitioner.

Note: Genetics is an ever-evolving science. There may be additional genes that emerge in the future, which could be significant to a specific gene or gene cluster

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Speed vs endurance

#	Gene	rsID	Your Result			
Speed versus Endurance						
1	ACTN3	rs1815739	TC		🟠	

VO2 max and Aerobic Capacity

#	Gene	rsID	Your Result			
VO2 max and Aerobic Capacity						
2	AMPD1	rs17602729	GG	🟢		
3	VEGFa	rs2010963	CG		🟠	
4	HIF-1a	rs11549465	CC	🟢		
5	ACSL1	rs6552828	GG	🟢		

Injury Prevention

#	Gene	rsID	Your Result			
Injury Prevention						
6	COL5A1	rs12722	TT			🔴
7	COL1A1	rs1800012	GG			🔴
8	VDR	rs1544410	GG			🔴
9	VDR-2	rs731236	TT			🔴
10	IL-6	rs1800795	CC			🔴
11	TNFα	rs1800629	GG	🟢		

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Immunity: Vitamin D, Zinc, & Vitamin C

ImmuneHealth

ImmuneHealth

Immunity Profile: Synthesizing Vitamin D from the Sun

Vitamin D Synthesis

VITAMIN D IS CRITICAL to the human body because it activates over 1,000 genes (~3-5% of the human genome). Vitamin D needs to be:

1. **Usable VITAMIN D3** via sunlight, food, and/or supplements.
2. **GET INTO THE CELLS** via Vitamin D Receptors (VDRs). VDRs are the "docking sites" for the Vitamin D3 to land on the surface of the cell so that Vitamin D can enter the cell to act on our DNA to reduce inflammation and boost immunity.

Synthesized VITAMIN D3 from sunlight: Genetically, you have a risk of not easily converting sunlight into usable Vitamin D3 because of a few genetic bottlenecks.

HOW TO INCREASE VIT D3 LEVELS IN YOUR BLOOD:

- **SUNLIGHT**: Get more *good* sunlight (not all sunlight is made equal!).
  - Figure out how much sunlight you can safely get to support Vitamin D levels.
  - One example is the phone app called **dMinder**, which intelligently calculates the best times of the day to get sun based on your location, your Vitamin D goals, the amount of skin exposure to the sun, and more. Other apps and resources may also be available.
- **FOOD**:
  - **EGG Yolks:** Organic & free-range is best.
  - **LIVER:** Organic, pasture-fed, & free-range is best.
  - **FISH**: Sustainable, wild-caught is best.
- **SUPPLEMENTS**
  - In general, it's best to have Vitamin D3 bundled with K2. Work with your practitioner to determine how much D3/K2.

Immunity Profile: Vitamin D Utilization

ImmuneHealth

Vitamin D Utilization

Utilizing Vitamin D by getting Vitamin D into your cells:
Getting Vitamin D into your blood is only half the journey, whether it's from sunlight, food, or supplements.

The second half of the journey for Vitamin D is to *enter* the cells, allowing it to work effectively. There are specialized docking sites called "Vitamin D Receptors" or "VDRs" that let Vitamin D through the cell membrane (the wall around the cell) to get in. If you have fewer docking sites (fewer receptors), than you won't get the full benefit of Vitamin D because there are fewer places for it to enter the cell.

GOAL: Improve the number of receptors on the surface of the cells by helping the VDR genes better express more receptors.
To boost this capacity:

1. Avoid smoking (both passive and active),
2. Avoid air pollution, and
3. Sulforaphane. Sulforaphane is a broccoli sprout extract that epigenetically stimulates more Vitamin D Receptors to dock on the surface of your cells. Sulforaphane also helps reduce inflammation by modulating the epigenetic expression of inflammatory genes, thereby making them less inflammatory.

Utilizing VITAMIN D3 into your cells: Genetically, you have a much greater risk of low capacity to bring Vitamin D3 into your cells because you have a risk of making fewer docking sites (Vitamin D Receptors) for Vitamin D to enter your cells.

Immunity Profile: Zinc Metabolism

ImmuneHealth

ZINC METABOLISM

Zinc is an essential part of the innate and adaptive immune responses and is an important cofactor for 300+ enzymes in our bodies. Specifically, zinc acts on SOD (superoxide dismutase) to reduce oxidative stress and free radicals within the body which decreases overall inflammation and boosts immune system activity.

RESULT: Genetically, you have a mixed genetic predisposition for zinc metabolism, which may require more zinc.

If you are concerned about zinc levels, zinc can be tested for with a simple blood test, and is best tested in conjunction with copper to properly assess the zinc-copper ratio.

***IMPORTANT NOTE:** The foods listed to the right are strictly from a high zinc lens. Food is complicated, and you may have other reasons to avoid certain foods. For example, people sensitive to histamine may want to avoid shellfish, even if it's high in zinc and they need zinc.

Zinc is also important for maintaining healthy skin, supporting proper growth and development, facilitating the healthy metabolism of proteins, fats, and carbohydrates, promoting reproduction, developing the central nervous system, regulating blood sugar homeostasis, and enhancing hearing and visual acuity.

Foods rich in zinc:

- Shellfish such as oysters, crab, mussels, shrimp
- Organ meat
- Red meat
- Poultry
- Legumes and beans
- Seeds such as hemp, pumpkin, squash, sesame
- Nuts such as cashews
- Eggs
- Whole grains such as quinoa, rice, oats
- 72%+ dark chocolate

Immunity Profile: Vitamin C

ImmuneHealth

VITAMIN C METABOLISM

Vitamin C is another an essential part of the innate and adaptive immune responses. Vitamin C helps the immune system by scavenging free radicals (as an anti-oxidant) and reducing overall inflammation. It is a key cofactor for many enzymes in the body and due to its water-soluble nature.

RESULT: Genetically, you have a mixed genetic predisposition for Vitamin C metabolism, which may require more Vitamin C.

Vitamin C utilization can be tested through urine tests to check for specific DNA damage markers, such as 8-hydroxy-2-deoxyguanosine, typically on an “Organic Acids Test”. Think of this test as an “emissions” test where, instead of checking the contents of the exhaust of the car, we’re checking the contents of the urine.

***IMPORTANT NOTE:** The foods listed to the right are strictly from a high Vitamin C lens. Food is complicated, and you may have other reasons to avoid certain foods high in Vitamin C. For example, peppers may be high in Vitamin C, yet some people may be sensitive to nightshades.

Vitamin C is also important for collagen production, iron absorption, carnitine formation (important step for fat burning), neurotransmitter and hormone synthesis, respiratory health, and the microbiome.

Foods rich in Vitamin C:

- Citrus fruits
- Kiwi
- Peppers
- Blackcurrants
- Broccoli
- Brussel sprouts
- Sweet potato
- Thyme, parsley
- Leafy greens such as mustard, spinach, kale

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Your Vitamin D, Zinc, and Vitamin C Genes

Your Vitamin D Genes

#	Gene	rsID	Your Result			
Vitamin D metabolism - Vitamin D receptor						
1	VDR	rs1544410	GG			🔴
2	VDR-2	rs731236	TT			🔴
Vitamin D metabolism - 7-dehydrocholesterol reductase						
3	DHCR7	rs12785878	GG			🔴
Vitamin D metabolism - 25-hydroxylase						
4	CYP2R1	rs10741657	AG		🟠	
Vitamin D metabolism - Vitamin D-binding protein						
5	GC-1	rs4588	GG	🟢		
6	GC-2	rs7041	CC	🟢		
Vitamin D metabolism - 1-alpha-hydroxylase						
7	CYP27B1	rs10877012	GG			🔴
8	CYP24A1	rs6013897	TT	🟢		

Your Zinc Genes

#	Gene	rsID	Your Result			
Zinc metabolism - Zinc transporter 14						
9	SLC39A14	rs4872479	GG			🔴
Zinc metabolism - Carbonic anhydrase						
10	CA-1	rs1532423	CC	🟢		
Zinc metabolism - Phosphopantothenoylcysteine decarboxylase						
11	PPCDC	rs2120019	TT	🟢		
Zinc metabolism - Negative Regulator Of P-Body Association						
12	NBDY	rs4826508	CC	🟢		

Your Vitamin C Genes

#	Gene	rsID	Your Result			
Vitamin C metabolism - Vitamin C transporter						
13	SLC23A1	rs33972313	CC	🟢		
14	SLC23A2	rs6053005	CC			🔴

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Achieve your Natural Weight, Longevity, & Wellbeing

The following sections cover the most important genes in the “Health & Wellbeing Profile”

1. Inflammation
2. Cellular Defence (Free radicals, Liver Detox, Estrogen Detox)
3. Methylation
4. Neurotransmitter Balance/Mood
5. Cardiovascular Health
6. Fat & Energy Metabolism
7. **Summary of The Most Important Longevity Genes & Lifestyle Grid & Supplements**

Health
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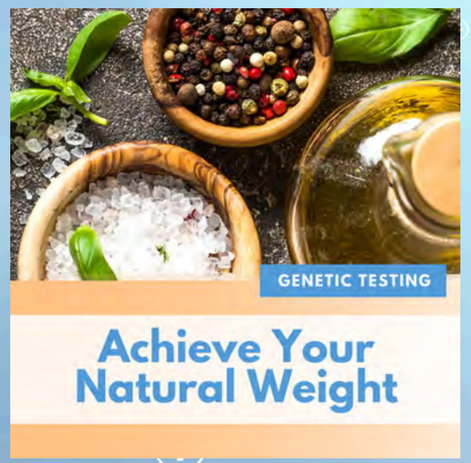
YOUR PERSONAL GENETIC PROFILE

Part 1: Inflammation



Health
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YOUR PERSONAL GENETIC PROFILE

Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

Inflammation

INFLAMMATION - WHAT WE LOOK AT:

The “Global Trend” summarizes the overall number of red/yellow dots from the most important inflammatory genes.
The “Clusters of Inflammatory Genes” look at the sets of genes that control the 3 main phases of inflammation.

GLOBAL TREND:

You have 13 of 15 as red/yellow dots

You have a very high risk of a strong inflammatory response (more than 10 red/yellow dots). When enough inflammatory genes have yellow or red across the entire inflammatory pathway, then the global trend is a 'red dot' because enough variations, even yellow ones, increase the risk of inflammation.

A red dot indicates a very high risk of inflammation being a key genetic driver of your health and well-being. Living an 'anti-inflammation' lifestyle will likely be critical to your success in achieving your health and well-being.

CLUSTERS OF INFLAMMATORY GENES:

Includes Initiation, Propagation, and Extinguishing of Inflammation

(Please note the roles of the genes in the 3 clusters are greatly simplified for the purposes of teaching and understanding which genes do what function)

Initiation of Inflammation (IL-1s, IL-6, TNFa):

You have a risk of initiating inflammation more readily.

Propagation of Inflammation (IL-8, IL-18, CRPs, COXs):

You have a generally high risk of the propagation inflammation.

Ability to Extinguish Inflammation (IL-10s):

You're at high risk of a lower capacity to extinguish inflammation.

Inflammation

#	Gene	rsID	Your Result			
INFLAMMATION - Pro-inflammatory Cytokines						
1	IL-1α-1	rs1800587	TC		🟡	
2	IL-1α-2	rs17561	GT		🟡	
3	IL-1-β	rs16944	AG		🟡	
4	IL-6	rs1800795	CC			🔴
5	IL-8	rs4073	AA			🔴
6	IL-18	rs1946518	GG			🔴
7	TNFα	rs1800629	GG	🟢		
8	CRP-1	rs2794520	CC	🟢		
9	CRP-2	rs2592887	GG			🔴
10	CRP-3	rs1205	CC			🔴
11	COX-2-3	rs689466	AG		🟡	
12	COX-2-1	rs20417	GG			🔴
INFLAMMATION - Anti-inflammatory Cytokines						
13	IL-10-1	rs1800896	AA			🔴
14	IL-10-2	rs1800871	TC		🟡	
15	IL-10-3	rs1800872	CA		🟡	

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Part 2: Cellular Defence

Free Radical Quenching (Anti-Oxidant Status)
Liver Detox, Estrogen Clearance, & Liver Inflammation

Health
& Wellbeing
YOUR PERSONAL GENETIC PROFILE

Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

Free Radical Quenching

The mitochondria are the powerhouses of the cells. The mitochondria are complicated electricity factories that take protein, fat, and carbs and 'burn' them in the presence of oxygen for ‘electricity’ (called ATP).

When the mitochondria burn fuel, there will be some ‘sparks’ (free radicals) that fly off.

Those ‘sparks’ have to be kept under control by vigilant ‘janitors’ so the factory (mitochondria) doesn’t catch fire and burn down.

These ‘janitors’ are the MnSOD, GPX1, and CAT genes that, not only catch the sparks (free radicals) that fly off the 'fire', but they also (amazingly enough) convert these 'sparks' (free radicals) into water and oxygen. Yes, your genes have the potential to convert free radicals into water and oxygen.

PRIORITY #1 - MnSOD: MnSOD (or “Mr. Sod” for this analogy) is the most important free radical quencher gene and acts as "Head Janitor." If the head janitor (MnSOD) isn't there, then the other janitors (GPX1 and CAT) can't do their jobs well.

The most important gene to focus on is MnSOD. After that, many of the recommendations for helping inflammation, liver detox, and MnSOD will also overlap and benefit GPX1 and CAT (the other janitors).

MnSOD or “Mr. Sod”:
The Head Janitor for your Mitochondria

You have a red dot in MnSOD, indicating a higher risk of compromise in your ability to quench free radicals at the most critical step in the process.

Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

Liver Detox Capacity

The liver has many functions including removing inflammation, toxic chemicals, and excess hormones like estrogen out of the body.

ANALOGY: The liver detox pathway acts like a "**washer/dryer" system, where Phase 1 is the "washer" and Phase 2 is the "dryer".**

Your liver takes 'toxic' compounds like chemicals, excessive hormones, and inflammation, and puts these 'toxic' compounds through the "washer" (Phase 1) to add a highly reactive compound (adding "water and detergent").

Next, the "washed" toxin is sent to the "dryer" (Phase 2) to tag ("dry") the molecule to be sent to the intestines to be pooped out.

THE PROBLEM: If a 'toxic' compound goes through Phase 1 (the "washer") but does not efficiently get into Phase 2 (the "dryer"), then the washed-but-not-dried toxic compound is way more dangerous than just the toxic compound by itself.

Think of clothes that get washed, but not dried: they can mold or mildew, which is way worse than if they were never washed at all. So too, toxins that are pushed through Phase 1, but stalled on Phase 2, are way more reactive than toxins that never went through Phase 1 in the first place, causing worse damage.

This is where people can develop multiple chemical sensitivities where they can't handle hardly any toxic loads from off-gassing, bad food, and other chemical exposures.

THE SCENARIOS:

- **Scenario 1:** Normal washer + normal dryer (good scenario)
- **Scenario 2:** Overactive washer + normal dryer (not great, less efficient)
- **Scenario 3:** Normal washer + slower dryer (not great, less efficient)
- **Scenario 4:** Overactive washer + slower dryer (very bad)

RESULT: Scenario 3: Normal washer + slower dryer

=> 1 or no red/yellow dots in phase 1

=> 2 or more red/yellow dots in phase 2

Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

Estrogen Clearance and Liver Inflammation

ESTROGEN CLEARANCE IN THE LIVER:

Many of the liver genes on this profile involve estrogen clearance.

Estrogen is especially important to consider for your liver function because we are surrounded by so many xenoestrogens (fake estrogens) in our environment.

Your ability to remove toxic or excessive estrogens or estrogen-like compounds is critical for your health & wellbeing.

RESULT: You have a moderate genetic risk of being affected by excessive estrogens or their toxic byproducts. See the next page to see potential sources of estrogens you can be exposed to.

INFLAMMATION IN THE LIVER PATHWAY:

The HO-1 gene is an inflammatory gene, even though it's listed in the liver genes. Variations (yellow or red dots) will affect inflammation overall in the whole body, not just in the liver.

Technical note: HO-1 has a complex relationship with inflammation, where it can “calm down” the initiation of inflammation (via the IL-1 genes).

To be even more technical, HO-1 is even more effective at “calming down” the initiation of inflammation when the anti-inflammation genes (IL-10s) are “green”.

What does this all mean? You may need to pay extra attention to an anti-inflammatory lifestyle with a yellow or red dot in HO-1.

RESULT: You have a negative variation in HO-1, but a strong green cluster of anti-inflammatory genes (IL-10s). Even though your HO-1 gene is at risk of not being as supportive to "calm" the initiation of inflammation, your IL-10 genes can support HO-1 to help tamp down the initiation of inflammation.

Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

Sources of Estrogen

UNDERSTANDING WHERE ESTROGEN IMBALANCES COME FROM:

MAIN SOURCES OF ESTROGEN:

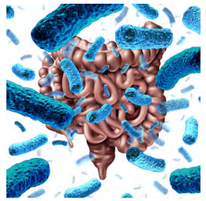
- **External contributors of high circulating estrogens**
  - Heated plastics
  - Household products (cleaning, shampoos, dishwashing detergent, baby care, etc.)
  - Soy products
  - Hormones and antibiotics found in chicken, meat, and/or dairy
  - Pesticides on veggies and fruits
  - Alcohol
  - Unfiltered city water (due to birth control pill residues)
  - Certain makeups, body lotions, and personal care products.
- **Internal contributors of high circulating estrogen:**
  - Excess visceral body fat
  - Liver overwhelm
  - Hidden infections/dysbiosis that can recirculate estrogen









NOTE: The liver clears excess estrogen from the body through the “washer/dryer” system (Phase 1/Phase 2) by attaching a “tag” to the estrogen molecule. The “tagged” estrogen mixes with bile, dumps into the intestines, and gets pooped out.

However, when dysbiosis is present, estrogen can be recirculated into the body by harmful bacteria in the gut (e.g. pathogens, opportunistic bacteria, overgrowth of normal flora, etc.). If harmful bacteria see estrogen floating by in the stool, they can grab the estrogen for themselves to help them grow, clip off the “tag”, and then send the estrogen back to the bloodstream, where it will eventually make its way back to the liver for re-processing. Too much of this can overwhelm the liver.

Functional stool testing has a specific marker (β-Glucuronidase) to check for this estrogen recirculation. Depending on your specific health issues, it may be appropriate to examine your gut health to help your body detox from toxin estrogens and avoid estrogens from excessively recycling back into your blood stream.

Cellular Defence:
Free Radical Quenching (Anti-Oxidant Status)
Liver Detox, Estrogen Clearance, & Liver Inflammation

#	Gene	rsID	Your Result			
CELLULAR DEFENCE - Anti-oxidant Status						
1	MnSOD	rs4880	CC			🔴
2	GPX1	rs1050450	TT			🔴
3	CAT	rs1001179	GA		🟠	
Liver Phase I Genes - Fitgenes Genetic Blueprint						
4	CYP1B1	rs1056836	GC		🟠	
5	CYP1A2	rs762551	AA	🟢		
6	CYP1A1	rs1048943	AA	🟢		
CELLULAR DEFENCE - Detoxification and Cell Defence - Phase I						
7	CYP1A1	rs1048943	AA	🟢		
8	CYP1A2	rs762551	AA	🟢		
9	CYP1B1	rs1056836	GC		🟠	
CELLULAR DEFENCE - Detoxification and Cell Defence - Phase II						
10	GCLC	rs17883901	CC	🟢		
11	GCLM	rs41303970	TC		🟠	
12	GSTP1	rs1695	AA	🟢		
13	NQ01	rs1800566	CC	🟢		
14	HO-1	rs2071746	TA		🟠	

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Part 3: Methylation

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Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

METHYLATION

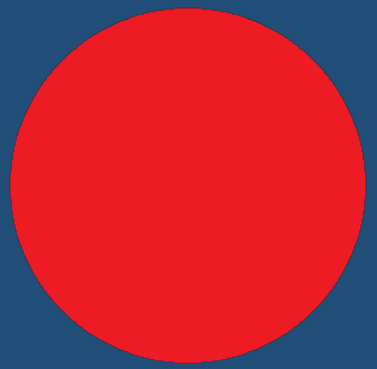
Methylation affects how your body deals with a damaging molecule called homocysteine. Homocysteine is so damaging that the body has three separate ways to get rid of it.

Additionally, methylation also acts as a “tagging system” for the body, akin to a bar code, that helps determine where molecules go or what they do. Examples include how the brain handles adrenaline, cortisol, and dopamine.

Methylation, particularly the MTHFR gene, has gotten a lot of press, yet there is more to methylation than just the MTHFR gene. Here we test about a dozen methylation genes, not just MTHFR.

Additionally, the significance of gene variations in methylation can be considered ‘downstream’ from other processes in the body, like inflammation, free radical damage, liver detox, and vitamin D utilization.

RESULT: You have 8/11 of the methylation genes as red/yellow dots.
Overall, you have a generally higher risk of your methylation pathway being imbalanced. Be mindful that 'upstream' imbalances (e.g. inflammation) can further affect methylation.



NEXT STEPS: You may want to focus first on the gene clusters that are ‘upstream’ from methylation, like the genes that control inflammation, free radicals, liver detox, and vitamin D receptors. Additionally, there are many factors that directly influence methylation, like specific B vitamins, magnesium, and others, many of which are likely addressed in part or in full by working with the ‘upstream’ genes. Work with your practitioner to determine the best approach to supporting your methylation needs, knowing that a great first step is likely just working with the upstream genes first.

Methylation

#	Gene	rsID	Your Result			
METHYLATION AND HOMOCYSTEINE METABOLISM - Methylation and Homocysteine Metabolism						
1	MTHFR-1	rs1801133	TC		🟡	
2	MTHFR-2	rs1801131	CA		🟡	
3	MTR	rs1805087	GG			🔴
4	MTRR	rs1801394	AA	🟢		
5	PEMT	rs7946	TC		🟡	
6	BHMT	rs3733890	GG	🟢		
7	SHMT1	rs1979277	GG	🟢		
8	COMT	rs4680	GA		🟡	
9	CBS	rs234706	GA		🟡	
METHYLATION AND HOMOCYSTEINE METABOLISM - Vitamin B12 Status						
10	TCN2	rs1801198	GC		🟡	
11	FUT2	rs602662	GG			🔴

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Part 4: Neurotransmitter Balance/Mood

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Health & Wellbeing
YOUR PERSONAL GENETIC PROFILE

Neurotransmitter Balance/Mood

MAOA-1

Receiving a “Red or orange dot” shows an increased risk of depression, OCD, panic attacks, ADHD, schizophrenia, and chronic fatigue syndrome.

Note: This dot does **not guarantee** that you have any or all of these, but it does indicate an increased risk of having any or all of these.

Recommendations: Exercise and stress management.

MAOA-2

This “Green Dot” variation has been mostly studied in the context of anger management. The green dot indicates an increased enzyme expression leading to lower levels of neurotransmitters and decreased risk of aggression traits.

Translation: You’re genetically less likely to be prone to anger.

Recommendations:

- **Exercise and stress management.**
- **Vitamin D**
- **Quercetin**

The MAOA gene is an essential regulator of brain function. This gene encodes the enzyme monoamine oxidase A, which plays a crucial role in the breakdown of neurotransmitters such as serotonin, epinephrine, norepinephrine, and dopamine.

These neurotransmitters regulate essential biological functions, including mood, emotion, sleep, appetite, response to stress, and smooth physical movements.

Given that genetic variations in MAO affect expression levels, they can directly impact the levels of these neurotransmitters and, consequently, lead to differences in behavior.

The role of MAOA has also been extensively studied in the context of bipolar disorder, alcoholism, and many other conditions.

The MAOA gene, along with the variants presented here and others, is the subject of ongoing research into its role in the body, biological impact, and relevance to mental health, aggression, and other behavioral traits.

The presence or absence of a variant (red, yellow, or green dots) can have varying impacts on various biological processes, and the literature is continually updated. The preliminary results shown on any genetics test (red, yellow, or green dots) are subject to updates pending future research and may require re-interpretation.

Warning: Alcohol has a high risk of be particularly bad for this combination (Red for MAOA-1 and Green for MAOA-2) in terms of potential overuse of alcohol and effects of alcohol on mood.

Neurotransmitter Balance/Mood

#	Gene	rsID	Your Result			
BONUS SNPs - Monoamine oxidase (MAOA)						
1	MAOA-1	rs1137070	TC			
2	MAOA-2	rs2064070	TT			

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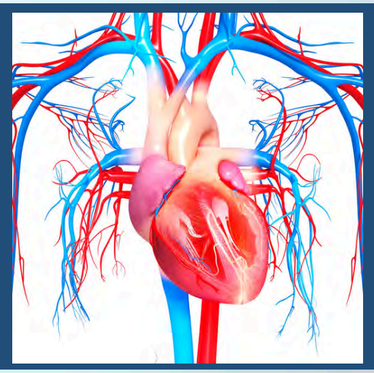
Part 5: Cardiovascular Health

Blood pressure
vessel integrity
Lipoprotein Metabolism



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Cardiovascular Health

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CARDIOVASCULAR HEALTH

BLOOD PRESSURE:

There are many factors that may increase blood pressure, like stress, shorter height, excess weight, smoking status, alcohol consumption, sleep apnea, thyroid issues, adrenal issues, kidney issues, sedentary lifestyle, and lack of exercise.

In general, individuals with more green dots in the genes associated with blood pressure tend to have lower blood pressure compared to those with yellow or red dots in these blood pressure genes.

RESULT: You genetically have a high risk of higher blood pressure. Having these genes does not guarantee that you will always have or even develop high blood pressure, yet you have a higher risk. Pay closer attention to the factors mentioned above that may increase blood pressure.

NOTE: If you know or suspect that you have high blood pressure, please refer to the paragraphs in the "Salt" section of the Food Trigger/FoodChoice profile on how to properly monitor blood pressure. Work with your practitioner.

VESSEL INTEGRITY:

These genes assess the integrity of blood vessels and their ability to withstand free radicals (oxidative stress), inflammation, homocysteine, and plaque buildup. You can help your vessel integrity by attending to the “upstream” genes of inflammation, free radicals, liver detoxification, Vitamin D Receptors, and methylation.

RESULT: You genetically carry a high risk of developing damage to your cardiovascular system.

Note: Many environmental factors can impact your cardiovascular system, similar to those that affect blood pressure. A red dot does not guarantee your cardiovascular system is currently 'unhealthy'. Work with your practitioner if you suspect you have cardiovascular concerns.

Cardiovascular Health

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APOE Genes

Note: This page is more technical because of the nature of the APOE Genes

Your APOE Genes: Unknown Risk

To lower risk, consider the following:

- Weight management
- Proper exercise
- Avoid Trans Fats
- Whole foods (unprocessed diet)
- Reduce stress levels
- Reduce or eliminate alcohol

APOE Gene Chart for Reference:

APOE isoforms	Genetic variant combinations		Impact on Alzheimer's risk
	APOE1 rs429358	APOE2 rs7412	
apoE4 / apoE4	CC	CC	Highest risk
apoE3 / apoE4	TC	CC	Elevated risk
apoE2 / apoE4	TC	TC	
apoE3/ apoE3	TT	CC	Normal risk
apoE2 / apoE3	TT	TC	Lower risk
apoE2 / apoE2	TT	TT	Lowest risk

The APOE gene has three major isoforms associated with variable risk, apoE2, apoE3, & apoE4, which are the products of combinations of the APOE1 rs429358 and APOE2 rs7412 genetic variants included in the Fitgenes Health & Wellbeing report, as displayed in the table above.

YOU have a 'GRAY DOT' ...the genetics file that was submitted did not have this gene tested. The information presented is just for educational purposes, but not specific to your genetics. The main risk analysis associated with the APOE Genes require both APOE1 and APOE2 genes.

Technical notes: Referencing the table on the right, having one copy of the apoE4 isoform increases the risk of Alzheimer's disease, and having two copies increases the risk even more. ApoE3, the common isoform, is not associated with any impact on risk, while ApoE2 appears to slightly decrease the risk of Alzheimer's disease. Other variant combinations not shown in the table are rare and have no known associated risk.

DISCLAIMER: The APOE-related results in the Fitgenes Health and Wellbeing Report are not a diagnosis of any condition and are inappropriate to support mental health treatment. If reviewing these results reveals any potential concerns, refer to genetic counselling for specific Alzheimer's genetic tests (for confirmation, guidance, and support).

DISCLAIMER: Similarly, if APOE gene results from a Fitgenes report indicate a lower risk, this does not guarantee that an individual will not develop the disease. Alzheimer's disease risk is influenced by many factors, including genetics, lifestyle, and environmental factors.

References
Kloske CM, Belloy ME, Blue EE, et al. Advancements in APOE and dementia research: Highlights from the 2023 AAIC Advancements: APOE conference. Alzheimers Dement. 2024;20(9):6590-6605. doi:10.1002/alz.13877
Raulin AC, Doss SV, Trottier ZA, Ikezu TC, Bu G, Liu CC. ApoE in Alzheimer's disease: pathophysiology and therapeutic strategies. Mol Neurodegener. 2022;17(1):72. Published 2022 Nov 8. doi:10.1186/s13024-022-00574-4
Yamazaki Y, Zhao N, Caulfield TR, Liu CC, Bu G. Apolipoprotein E and Alzheimer disease: pathobiology andtargeting strategies. Nat Rev Neurol. 2019;15(9):501-518. doi:10.1038/s41582-019-0228-7

Cardiovascular Health

Lp(a) Genes

The LPA gene encodes the lipoprotein(a), also known as Lp(a), an LDL-like particle produced by the liver that plays a crucial role in lipid metabolism and cardiovascular health. Plasma Lp(a) levels are predominantly determined by genetics, with LPA being the primary gene influencing its concentration.

Your Lp(a) Genes

Elevated Lp(a) levels are linked to an increased risk of cardiovascular disease, even when cholesterol levels are within the normal range.

While two green dots are associated with a lower risk of cardiovascular disease, two yellow dots and especially two red dots are associated with an increased risk of cardiovascular disease. Individuals with one green dot and one yellow/red dot should consider themselves at an increased risk.

The general focus for individuals with increased genetic risk factors should be on improving overall cardiovascular health through general lifestyle and diet modifications, which can include:

- Maintain a healthy weight
- Proper exercise
- Avoiding Trans Fats
- Ensuring adequate sleep and good sleep hygiene
- Reduce stress levels, such as engaging in mindfulness
- Reduce or eliminate alcohol
- Managing blood pressure, blood sugar levels, and triglycerides
- Quitting smoking
- Staying hydrated
- Fiber-rich foods, like vegetables
- Omega-3 fatty acids, CoQ10, L-carnitine, flaxseed

Potential labs to monitor for cardiovascular health: Lp(a), triglycerides, HbA1C, fasting glucose, fasting insulin, lipids, etc.

Cardiovascular Genes

Blood Pressure regulation

#	Gene	rsID	Your Result			
CARDIOVASCULAR HEALTH - Blood Pressure Regulation						
1	AGT	rs699	TT	🟢		
2	ACE	rs4343	D/D			🔴
3	AGTR1	rs5186	CA		🟠	
4	GNβ3	rs5443	CC	🟢		

Vascular tone

#	Gene	rsID	Your Result			
CARDIOVASCULAR HEALTH - Vascular Tone						
5	eNOS3-2	rs1799983	GT		🟠	
6	NADPH-CYBA	rs4673	CC			🔴
7	PAI-1	rs1799889	4G/4G			🔴
8	ADIPOQ	rs1501299	AA	🟢		

Lipoprotein metabolism

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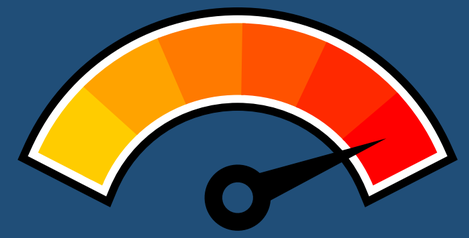
Part 6: Fat and Energy Metabolism

Appetite Control
Burning Fat for Energy
Burning Fat for Heat
Cholesterol Regulation



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Fat/Energy Metabolism

APPETITE CONTROL:

There are many reasons people don't feel full after a meal, including genetic brain signals, emotional eating, hidden gut infections, spiked blood sugar, social pressure, exercise levels, illness, etc.

Your stomach should signal your brain that you are full. Yet if the genes controlling those signals have yellow/red dots on them, it is harder for your brain to register that you are 'full'. If you find yourself ever consistently overeating, despite implementation of the genetics-based recommendations, talk to your practitioner about the other reasons listed above for overeating.

See recommendations for “Satiety Feeling” in the “Understanding your Trigger Foods” section.

RESULT: You have a risk of feeling unsatiated from the appropriate amount of food, meaning there is a genetic predisposition (risk) of overeating.

ABILITY TO BURN FAT FOR ENERGY:

RESULT: You have a lower risk of inefficiently burning fats for energy.

ABILITY TO BURN FAT FOR HEAT:

RESULT: You have a higher risk of inefficiently burning fats for heat.

Cholesterol regulation

RESULT: You have a risk of cholesterol dysregulation.

Practical application: To improve your ability to burn fat for energy or heat, and regulate cholesterol, attend to the “upstream” genes of inflammation, free radicals, liver detoxification, Vitamin D Receptors, and methylation. See the prioritized lifestyle grid towards the end of the report.

Fat Metabolism

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Appetite control

#	Gene	rsID	Your Result			
Satiety Feeling - DietaryChoice						
1	LEPR-1	rs1137101	AA	🟢		
2	MC4R	rs12970134	GG	🟢		
3	FTO	rs9939609	AA			🔴

Burning Fat for Energy

#	Gene	rsID	Your Result			
Fat Metabolism - Ability to Burn Fat for Energy - Fitgenes Genetic Blueprint						
4	ADRβ2	rs1042714	CC	🟢		
5	LEPR-1	rs1137101	AA	🟢		
6	LEPR-2	rs1137100	AA	🟢		
7	PPARγC1A	rs8192678	GG	🟢		
8	ADRβ3	rs4994	TT	🟢		

Burning Fat for Heat

#	Gene	rsID	Your Result			
Fat Metabolism - Ability to Burn Fat for Heat - Fitgenes Genetic Blueprint						
9	UCP2	rs659366	CC			🔴
10	UCP1	rs1800592	AA	🟢		
11	UCP3-2	rs1800849	GG			🔴

Cholesterol regulation

#	Gene	rsID	Your Result			
Cholesterol Regulation - Fitgenes Genetic Blueprint						
12	CETP	rs708272	CC			🔴
13	LIPC	rs1800588	CC			🔴
14	PON-1	rs662	AA	🟢		
15	PPARδ	rs2016520	TC		🟠	

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Part 7: Summary of The Most Important Longevity Genes & Lifestyle Grid & Supplements

Your practical guide to the prioritized list of lifestyle changes and supplements

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Explanation of the lifestyle & supplement charts below

Given the numerous lifestyle, diet, and nutrition options for addressing yellow and red dots, how can we identify the fewest options that address the most important gene variations? The answer is that we identify the fewest lifestyle, diet, and nutrition options that have the most beneficial influence on the highest priority genes.

Fortunately, the genes in the Health & Wellbeing/Achieve Your Natural Weight report are already listed in order of priority. For example, the genes for inflammation are more important than the genes for vessel integrity and cholesterol, because the genes for inflammation have a greater influence over the genes for vessel integrity and cholesterol.

The most important “upstream” genes are the first few dozen genes, which include: 1. Inflammation, 2. Cellular Defence, 3. Vitamin D Utilization (discussed in the Immunity section), and 4. Methylation. The next page shows these most important genes in order of priority.

Then, the following page is a convenient lifestyle grid that prioritizes the most important lifestyle, diet, and nutrition options for improving the epigenetic expression of yellow and red dots within the most important genes. The options are listed in order of priority based on the number of yellow and red dots that the individual option supports.

The page after the grid is the list of prioritized supplements based on the whole Genetics+ report, not just the genes above. Please note that it is not necessary to take all the supplements listed. They are listed for the sake of completeness. Only do the number of supplements that is realistic for you, like 3-5. Work with your practitioner for further guidance.

The most important genes in the Health & Wellbeing / Achieve Your Natural Weight Report.

#	Gene	rsID	Your Result			
INFLAMMATION - Pro-inflammatory Cytokines						
1	IL-1α-1	rs1800587	TC		🟠	
2	IL-1α-2	rs17561	GT		🟠	
3	IL-1-β	rs16944	AG		🟠	
4	IL-6	rs1800795	CC			🔴
5	IL-8	rs4073	AA			🔴
6	IL-18	rs1946518	GG			🔴
7	TNFα	rs1800629	GG	🟢		
8	CRP-1	rs2794520	CC	🟢		
9	CRP-2	rs2592887	GG			🔴
10	CRP-3	rs1205	CC			🔴
11	COX-2-3	rs689466	AG		🟠	
12	COX-2-1	rs20417	GG			🔴
INFLAMMATION - Anti-inflammatory Cytokines						
13	IL-10-1	rs1800896	AA			🔴
14	IL-10-2	rs1800871	TC		🟠	
15	IL-10-3	rs1800872	CA		🟠	
CELLULAR DEFENCE - Anti-oxidant Status						
16	MnSOD	rs4880	CC			🔴
17	GPX1	rs1050450	TT			🔴
18	CAT	rs1001179	GA		🟠	
CELLULAR DEFENCE - Detoxification and Cell Defence - Phase I						
19	CYP1A1	rs1048943	AA	🟢		
20	CYP1A2	rs762551	AA	🟢		
21	CYP1B1	rs1056836	GC		🟠	

#	Gene	rsID	Your Result			
CELLULAR DEFENCE - Detoxification and Cell Defence - Phase II						
22	GCLC	rs17883901	CC	🟢		
23	GCLM	rs41303970	TC		🟠	
24	GSTP1	rs1695	AA	🟢		
25	NQ01	rs1800566	CC	🟢		
26	HO-1	rs2071746	TA		🟠	
VITAMIN D METABOLISM - Vitamin D Receptors						
27	VDR	rs1544410	GG			🔴
28	VDR-2	rs731236	TT			🔴
METHYLATION AND HOMOCYSTEINE METABOLISM - Methylation and Homocysteine Metabolism						
29	MTHFR-1	rs1801133	TC		🟠	
30	MTHFR-2	rs1801131	CA		🟠	
31	MTR	rs1805087	GG			🔴
32	MTRR	rs1801394	AA	🟢		
33	PEMT	rs7946	TC		🟠	
34	BHMT	rs3733890	GG	🟢		
35	SHMT1	rs1979277	GG	🟢		
36	COMT	rs4680	GA		🟠	
37	CBS	rs234706	GA		🟠	
METHYLATION AND HOMOCYSTEINE METABOLISM - Vitamin B12 Status						
38	TCN2	rs1801198	GC		🟠	
39	FUT2	rs602662	GG			🔴

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Prioritized Lifestyle, Nutrition, and Supplement Grid

The prioritized lifestyle recommendations are based on "Achieve Your Natural Weight"/"Health & Wellbeing" Profile.

The 1st column shows the groupings of the highest-priority recommendations, approximately the top 8-12 recommendations, followed by the next set of recommendations.

The 2nd column lists the specific recommendations in order of priority. Work with your practitioner to determine which ones are the easiest for you to implement first to meet your specific situation and needs.

The 3rd column lists how many of the yellow- and red-dotted genes are epigenetically beneficially affected by the recommendation. The more genes benefited by a single recommendation, the higher a priority that recommendation becomes.

Priority sets	Lifestyle changes to do in order of priority	Of the [29] of red/yellow dots in your first (and most important) [39] genes, (Inflammation, free radicals, liver, Vit D, & Methylation), the following # of those red/yellow genes are beneficially affected by the recommended lifestyle or nutritional change.
Highest priority (1st month)	SOD (Super Oxide Dismutase) Inducer supplementation	14
	Sulforaphane in food or supplements	14
	Avoid smoking - both active and passive (and air pollution)	13
	High Omega-3 Supplementation (EPA/DHA)	12
	Increase Omega-3 rich foods i.e., pastured animal fats and clean fish	11
	Decrease Omega-6 rich foods (grain and bean oils)	11
	Avoid over-training	11
	High fiber intake (Vegetables)	11
	Vitamin D3 in food or supplements	11
	Reduce body weight if overweight	10
Next highest priority (2nd month)	Moderate exercise i.e., walking	8
	Vitamin E in food or supplements	7
	Cruciferous vegetables 3+ servings/week (broccoli, cabbage, etc.)	7
	Alpha-Linolenic Acid (Flax or hemp oil)	7
	Oleic Acid i.e extra virgin olive oil	7
	Zinc in food or supplements	6
	Flavonoid-containing foods (colorful vegetables)	5
	Monitor coffee & caffeine consumption	4
	Coenzyme Q10	4
	Decrease Omega 6 / Omega 3 ratio	4
3rd priority (3rd month)	Magnesium in food or supplements (Mg Threonate)	4
	Garlic and onions	4
	Melatonin (Deep sleep)	4
	Vitamin B12 rich foods i.e., eggs, meat, poultry	3
	Caution: Vegan / Vegetarian Diets	3
	Avoid Westernized Diets	3
	Decrease stress levels if over-stressed	3
	Ensure adequate sleep (8 - 10 hours/night)	3
	Intermittent fasting (Ideally don't skip breakfast)	3
	Nuts-i.e.almonds, walnuts, hazelnuts	3

Achieve Your Natural Weight

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Longer supplement list in order of priority

1. Supplements are prioritized based on your genetics of the whole report, including Food Trigger and Immunity reports. .
2. Work with your practitioner to modify as needed and to decide which brand(s) and specific products are best for you.
3. Take what is realistic and not overwhelming for you.
    a. If you need a starting place, choose the top 3-5 supplements to start.
4. Drink more fluids in between meals (for optimal digestion) to stay hydrated while on this protocol. **Water is crucial!**

Priority	Genetics-based ingredient(s)
1	SOD Inducer
2	Sulforaphane
3	Omega 3s (EPA/DHA)
4	Vitamin D3
5	Anti-Histamine Nutrients
6	Anti-histamine digestive support (Diamine Oxidase)
7	N-Acetyl-Cysteine as a SOD Inducer and liver detox support
8	Zinc
9	Coenzyme Q10
10	Magnesium
11	Nutrients to improve Phase 2 Detox
12	Magnesium for the brain
13	Vitamin C
14	Nutrients/herbs to reduce sweet cravings

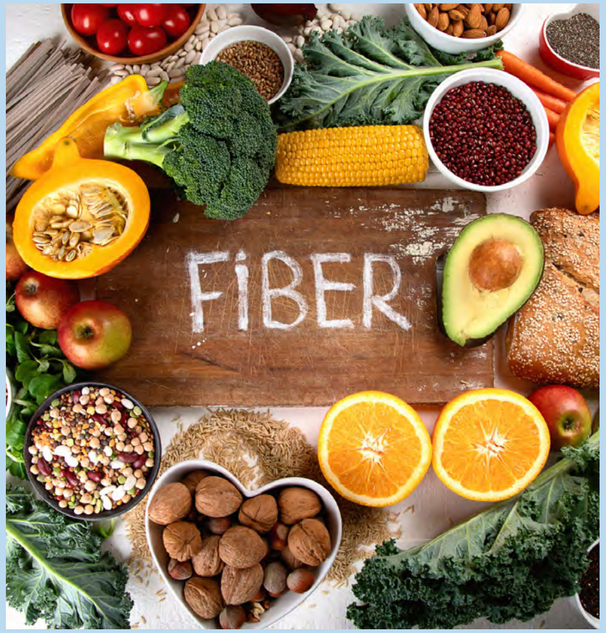
Additional products to consider, depending on your specific situation:

- A morning protein shake that contains healthy collagen or other clean protein.
- Additional Phase 2 liver detox support.
- Digestive enzymes may help with the absorption of food and supplements.
- Sleep and stress support.

How to increase more fiber from vegetables

Key benefits of getting fiber from vegetables, which can include:

- Better, easier, more regular bowel movements
- Feeling full longer, supporting a healthy weight
- Slowing sugar absorption, which helps control blood sugar
- Feeding healthy gut bacteria
- Supporting healthy blood pressure
- Fiber helps calm some pro-inflammatory genes, **and improve the function of certain the anti-inflammatory genes.**
  - (Research Summary Link)
- Ideally, get your fiber from vegetables, not generic fiber powders.



The best high-fiber vegetables include, but are not limited to:

- Broccoli
- Brussels sprouts
- Carrots
- Sweet potatoes
- Artichokes
- Collard greens
- Beets
- Cauliflower

For best results, increase your fiber intake gradually at meals. Be sure to drink plenty of water between meals if you increase your fiber.

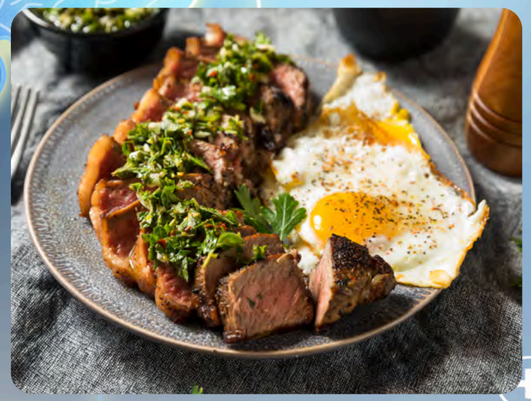
Drinking water between meals helps prevent digestive discomfort as your body adjusts to more fiber.

Drinking too much water during meals can dilute your digestive enzymes and stomach acid.

Broader Health Insights

Additional recommendations on factors that affect your health and well-being, not specific to the genes tested:

- **Eating Breakfast**
- **Sleep Hygiene**
- “**Metabolic Barbed Wire**”: The factors that interfere with getting results from lifestyle changes from your genetics.



Eating Breakfast

Sleep Hygiene

“Metabolic Barbed Wire”

Consider starting your morning with 30+ Grams of Protein

Eating a high-protein breakfast offers numerous benefits that can set a positive tone for the day, such as:

- Improved Satiety & appetite control
- Better Muscle Mass and Strength
- Enhanced Cognitive Function
- Metabolic Benefits
- Weight Management

Note: Many individuals claim they can skip breakfast long-term and still feel great, based on the concept of intermittent fasting. The reality is that the stress hormone cortisol increases when you skip breakfast, which is not ideal for many people. If you engage in long-term intermittent fasting, please ensure you are under proper supervision.

Research summary link

Work with your practitioner to figure out your ideal morning routine.

VEGGIE & SAUSAGE QUICHE
1.5 OZ. SPROUTED ALMONDS
31 GRAMS

1 CHICKEN SAUSAGE + 3 EGGS
1 OZ PUMPKIN SEEDS
34 GRAMS

4 OZ GRASS-FED STEAK
2 ORGANIC EGGS
40 GRAMS

SMOOTHIE:
INCLUDE A QUALITY PROTEIN POWDER
RECOMMENDED BY YOUR PRACTITIONER
30 GRAMS

How to Improve Sleep Hygiene

Though there are currently no specific sleep genes in this report, Sleep is essential for overall well-being. Better sleep will help you with your epigenetics, offering a multitude of benefits that enhance physical, emotional, and mental health, such as:

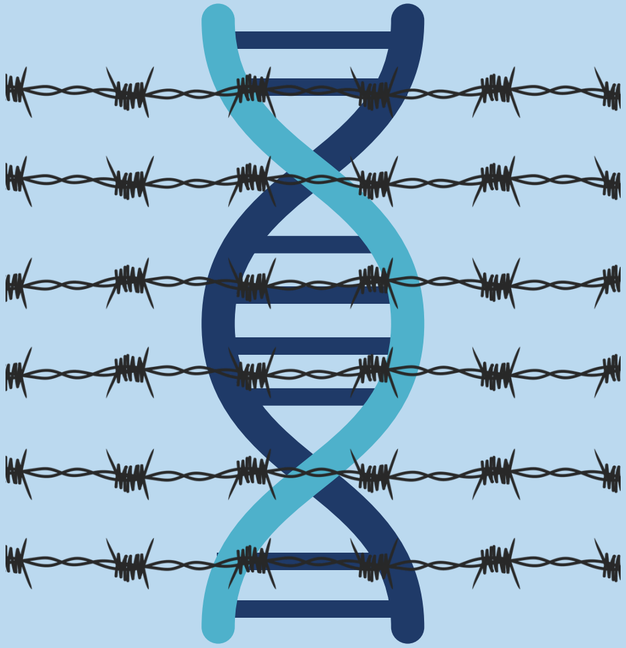
- Productivity
- Immune system
- Stress reduction
- Muscle recovery
- Clearer thinking
- Emotional regulation
- Hormone & Energy balance
- Metabolism & weight management

General common-sense guidelines that could improve sleep. If you struggle with sleep, work with your practitioner.

1. Get natural sunlight for 2-10 minutes soon after waking.
    a. Note: if it's winter outside and there's no sun when you wake, use bright artificial lights.
    b. Repeat sunlight exposure for 2-5 minutes at midday.
    c. Repeat sunlight exposure 2-5 minutes in the late afternoon.
    d. Get your last dose of sun for 5 minutes right at or before sundown.
2. Turn off your screens at least 1 to 3 hours before bedtime.
3. Create a cozy environment to wind down.
    a. Dim lights
    b. Ideally, shift the color of your lights to dark orange or red lights. Replace all bulbs with color-controlled LED lights that you can change to dark orange or red at night.
4. Go to sleep and wake up at the same time every day for 7 consecutive days. This will help your circadian rhythm. Continue to do this beyond 7 days.

Metabolic Barbed Wire: Understanding Why Genetic-Based Lifestyle Changes May Not Be Working As Well on the Time-line You Expect

If after a few months of implementing the recommendations from your genetics, yet you're not seeing the results you're looking for, you may have "metabolic barbed wire" wrapping your genetics, blocking your ability to access the most benefits from your genetics.



Don't worry, this doesn't mean your genetics aren't working; it's likely you have something else going on that is blocking progress.

For example, if someone has a hidden gut infection or mold toxicity causing inflammation, you may need to remove the infection or mold (the sources of inflammation) to fully benefit from the Genetics-based recommendations.

The infection or mold would be the "barbed wire" wrapping around the genes. Once the barbed wire is "defanged", then you can access the full benefit of your genetics.

If you suspect "metabolic barbed wire", work with a practitioner to get functional testing to best identify the underlying issues.

Another example: If someone is genetically higher carb (based on the separate Carb Tolerance/CarbChoice test), but they have a candida infection, than any time they eat very low carb (like Keto), they'll feel bad from the mismatch with their genetics, but when they eat a higher carb diet, they'll feel bad from the spike in candida from eating high carbs.

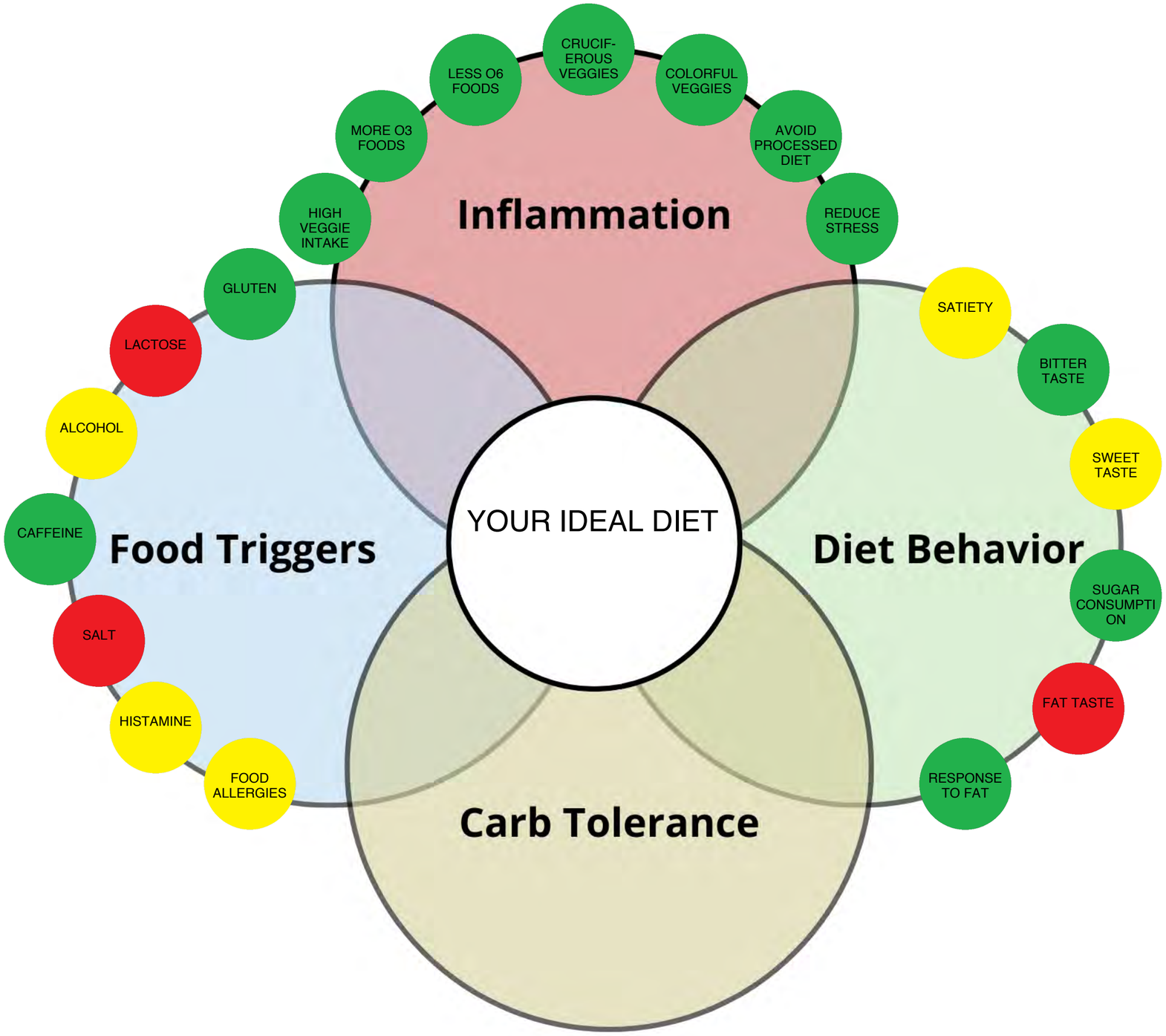
One possible solution is to undergo a gut test for candida, followed by a separate diet and protocol to remove the candida, and then return to the genetic-based diet afterwards.

Bottom line: If you aren't feeling the results of the genetics-based recommendations, there is likely "barbed wire." Work with your practitioner to consider functional testing.

Genetics Summary

The following two pages are a visual summary of your genes.
The Diet Matrix shows the gene summaries as they relate to food.
The grid summary page shows the different dot color designations of all the major genes.

Your Diet Matrix



Summary of Your Genetics Results:

Food Triggers	
Gluten	GREEN
Lactose	RED
Alcohol	YELLOW
Caffeine/Coffee	GREEN
Salt	RED
Histamine Tolerance	YELLOW
Food Allergies	YELLOW

Diet Behavior Profile	
Satiety Feeling	YELLOW
Bitter Taste Perception	GREEN
Sweet Taste Perception	YELLOW
Sugar Consumption	GREEN
Fat Taste Perception	RED
Response to Fat Intake	GREEN

Achieve Natural Weight/Longevity	
Overall Inflammatory Response	RED
Initiation of Inflammation	YELLOW
Propagation of Inflammation	RED
Ability to Extinguish Inflammation	RED
Free Radical Quenching	RED
Liver Detox Capacity	YELLOW
Estrogen Clearance in the Liver	YELLOW
Inflammation in the Liver Pathway	YELLOW
Methylation	RED
MAOA-1	RED
MAOA-2	GREEN
Blood Pressure	RED
Vessel Integrity	RED
Appetite Control	YELLOW
Ability to Burn Fat for Energy	GREEN
Ability to Burn Fat for Heat	RED
Cholesterol Regulation	YELLOW

Exercise	
Speed vs Endurance	YELLOW
Collagen Components	RED
Exercise-induced Inflammation & Injury	RED
VO2 Max & Aerobic Capacity	GREEN

Vit D & Immune profiles	
Vitamin D - Synthesized	YELLOW
Vitamin D - Absorbed	RED
Zinc Metabolism	YELLOW
Vitamin C Metabolism	YELLOW

Congratulations on Taking This Important Step!

By understanding your genetic profile, you're investing in not just your own health, but potentially creating positive changes that can benefit your loved ones and future generations.