EPIGENETIC COACHING

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The data reflected in this report consist of clinical study results on Nutrigenetics and Epigenetics published in international refereedscientific journals in the field of Nutrigenetics and Epigenetics.

Sentences expressing suggestions and possibilities such as “scientific data shows”, “literatures suggest”, “could”, “may stay”, “may result”, “can improve”, “may increase”, “decrease” “expect”, “can be selected” are combined with the genotype information of the reported individual. It has been used to establish the logical connection between the information that can be used as a source in the current studies in the field of Nutrigenetics and Epigenetics in the scientific literature and to help and guide the physician and pharmacist in clinical treatment and practice within the framework of appropriate logical connections. The Genetics report does not guarantee that all scientific literature resources that may be relevant to a particular Nutrigenetic and Epigenetic analysis are 100% comprehensively included in the database. Since the physician may want to evaluate the logical connection established by the Genetic report between the information given in the field of Nutrigenetics and Epigenetics and the genotype of the individual reported in the scientific literature, in the light of the clinical findings of an individual he/she treats, the Genetic report will explain every issue regarding the treatment methods of the individual with Nutrigenetic and Epigenetic information. and it does not replace medical treatment. This report is a guide that accompanies the physician's own medical judgments and recommendations.

Thank you for choosing the Nutrigenetic & Epigenetic Coaching Package. We are very happy to have analyzed your results and delivered them to you. In this final report, you will find the results of your genetic test and expert analysis, the results of your microbiota test and expert analysis, and finally, the nutritional recommendations tailored for you. All analyzes and comments in the content of our report have been specially designed and prepared based on your test results.

As a result of this report, it is aimed to improve the quality of your life in the light of genetics, to make adjustments with your nutrition and lifestyle planning for a healthier and epigenetic profile.Although polymorphism analyzes do not diagnose the disease, they provide information about increased risk and susceptibility for some diseases.The information in this booklet are recommendations based on the science of Nutrigenetics & Nutrigenomics. It does not include medical treatment.

Epigenetics is the science that studies the hereditary changes that occur without a change in the DNA sequence of exons and introns (active and inactive gene regions) in gene expression. In more scientific terms, it examines the changes that occur in the phenotype without changing the genotype. Epigenetic changes are natural and necessary events that progress in a certain order, but they can be affected by external factors such as age, lifestyle, nutrition, environmental conditions, diseases, drugs and supplements. It is known that epigenetic mechanisms are effective in the emergence of many diseases such as allergies, autoimmune diseases, Type 2 Diabetes, obesity, insulin resistance, cardiovascular diseases. Epigenetic mechanisms are defined by three important systems, namely DNA methylation, histone modifications and non-coding RNA-related gene silencing systems, in line with current research.

Epigenetic marks can be modified by lifestyle choices, nutrition, environmental influences and supplements. Epigenetic effects occur throughout life, not just in the womb, and are reversible. For example, it is known that air pollution can increase the risk of neurodegenerative diseases by changing the methyl effects on DNA. Studies have shown that B group vitamins protect against the harmful epigenetic effects of pollution and fight the harmful effects of certain substances on the body. It is known that dietary regulations and a tailor-made diet significantly alter the epigenetic effects. Nutrigenetic and nutriepigenomics studies explore the mechanisms of action of food and epigenetics on human health. As an exemplary study, research can be given that a high-fat and low-carbohydrate diet can positively affect the development of mental ability through HDAC inhibitors by opening chromatin. As a result, scientific studies reveal the effects of different food groups on the epigenome and health, and the roles they play in the emergence of diseases. Accordingly, regulating optimal food intake according to the epigenetic profile of the person can prevent many diseases and reverse many existing diseases in the existing person and provide a better quality of life.

Epigenetics: Epigenetics is the study of how your actions and your environment can change your genes and change how they work. Epigenetic changes can be undone, unlike genetic changes. They don't change your DNA sequence, but they can change how your body interprets it.

Nutrigenetics/Nutrigenomics: Nutrigenetics and nutrigenomics are both scientific fields that study how genes affect how the body responds to food and how nutrients and bioactive food compounds affect how genes are expressed. By using this genomic information and high-throughput "omic" technologies, we can learn new things that will help us better understand how nutrients interact with genes based on the genotype. The end goal is to create personalized nutrition strategies for optimal health and disease prevention.

Gene: Genes are relatively short portions of DNA that contain the genetic instructions for making proteins. Each gene has a unique set of instructions that codes for a distinct protein or performs a specific function in the cell. Genes, in their most basic form, are the functional units of heredity.

DNA: Deoxyribonucleic acid, or DNA, is the hereditary material in humans and almost all other organisms. Almost every cell in a person's body has the same DNA. The information in DNA is stored as a code consisting of four chemical bases: These bases are Adenine(A), Thymine(T), Guanine(G) and Cytosine(C). Expressions that emerge from different combinations of these basics constitute our personal situations such as hair style, eye color, susceptibility to a certain disease.

SNP: SNPs, which stand for single nucleotide polymorphisms, are the most common kind of genetic variation in humans. Each SNP is a difference in a single nucleotide, which is a part of DNA. A change in the DNA sequence that happens when a single nucleotide (adenine, thymine,cytosine, or guanine) in the genome is changed and at least 1% of the population has that change. For example, an SNP can replace the nucleotide cytosine (C) in a certain DNA sequence with thenucleotide thymine (T).

Allele: An allele is one of two or more versions of the DNA sequence (a single base or a group of bases) at a certain place in the genome. A person gets two alleles, one from each parent, for every place in the genome where this kind of variation exists. When both alleles are the same, a person is said to be homozygous for that allele. The person is called heterozygous if the alleles are different.

Risk Allele: The allele that increases the likelihood of acquiring a disease is known as the risk allele in the context of a disease.

Genotype: The combination of alleles that an individual possesses for a specific gene is their genotype. It can be represented by symbols such as CC, CT, TT.

	HOMOZYGOUS	HETEROZYGOUS
GENOTYPE	AA, TT, CC, GG	AT, AC, AG, TC, TG, GC

The importance of a personalized approach that includes genetically appropriate nutrition and lifestyle in the maintenance and protection of health is now known. When the understanding of epigenetic mechanisms, which started with the slogan DNA is not destiny, and the relationship between nutrition and human genetics (genome) combined with environmental factors, the genetic predisposition that we previously stated as familial predisposition, such as allergic diseases, heart diseases, autoimmune and cancer is not our destiny, and changes on the human gene (epigenetics) are important. in the emergence of the disease has been understood. Our DNA, which is 99.9% similar, 0.1% difference makes you special. As the Epigenetic Coaching team, your 0.1% differences are important to us. A special evaluation is made by our team in accordance with the features that make you you. Knowing the language of the genes that make you you, an individual life plan according to them will reduce your susceptibility to diseases and helpyou live a healthy life.

LEARNING THE LANGUAGE OF YOUR GENES
INTRODUCTION TO YOU
LIVE ACCORDING TO YOUR GENES

DIET AND NUTRITION PANEL

LACTOSE INTOLERANCE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MCM6	C	CC	High degree of relative risk for lactose intolerance.
MCM6	T	TT	High degree of relative risk for lactose intolerance.
MCM6	C	CC	High degree relative risk for lactose intolerance.
LCT	G	GG	High degree of relative risk for lactose intolerance.

HIGH RISK

SUGGESTIONS

According to your genetic result, your risk of lactose intolerance is above average. If epigenetic factors and your clinical findings suggest lactose intolerance, it is recommended that the consumption of milk and dairy products be balanced in the diet. According to your personal sensitivities, herbal dairy products (almond, coconut milk, oat milk) or lactose-free dairy products can be preferred according to the suitability of your intestinal flora. Consult your physician for appropriate probiotic and lactase enzyme supplementation.

CAFFEINE SENSITIVITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADORA2A	C	TT	Decreased relative risk for anxiety developed by coffee consumption.
ADORA2A	T	CC	Decreased relative risk for coffee-related anxiety.
CYP1A2	C	AC	Moderate relative decrease in caffeine metabolic rate, moderate relative increase in cardiac risk.

LOW RISK

SUGGESTIONS

According to your genetic result, you have a relatively low sensitivity to caffeine. You're less affected by caffeine intake compared to most people. Considering epigenetic factors, excessive consumption of caffeine-containing foods should not be overdone.

HISTAMIN SENSITIVITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
DAO	T	CT	Moderate relative risk for histamin breakdown due to mild decreased DAO activity.
DAO	T	CC	Decreased relative risk for histamin breakdown due to normal DAO activity.
HNMT	T	TT	Increased relative risk for histamin breakdown.
HNMT	T	CC	Decreased relative risk for histamin breakdown.
DAO	A	CC	Decreased relative risk for histamin breakdown due tonormal DAO activity.
HNMT	A	TT	Increased relative risk for histamin breakdown.
HDC	C	AA	Reduced relative risk for allergic rhinitis.
HRH1	A	GG	Reduced relative risk for allergic asthma.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your histamine intolerance shows a moderate relative increased. You should be reduced consumption of histamine-rich foods. Foods with high histamine content: fermented products (yogurt, pickles), dried fruits, smoked meats, processed delicatessen products (sausage, salami, sausage, pastrami), some types of fish (salmon) are foods rich in histamine. This group of foods should be avoided and your doctor will start the necessary supplementation according to your general clinical condition.

CHOLINE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFD1	T	CT	Moderate relative risk for choline requirement, possibly due to moderate enzyme activity.
PEMT	T	CT	Moderate relative risk for choline requirement, possibly due to moderate PEMT activity.

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, there is a modarate relative risk for choline needs.Choline is one of the nutrients involved in your body's methylation cycle.Attention should be paid to the consumption of choline-containing foods. Some animal foods, such as eggs, are among the best sources of choline.Betaine, a metabolite of choline, works throughout the methylation cycle, so food sources that contain betaine (beets, quinoa, and spinach) should also be present in your diet.

OMEGA-3

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
FADS1 (MYRF)	T	TT	High relative risk for impaired biogenesis.
FADS1	T	TT	High relative risk for the need of Omega-3 (EPA/DHA).
FADS1	C	CC	High relative risk for decreased D5D and D6D fatty acid desaturase enzyme activity.
FADS2	T	CT	Moderate relative risk for AA, and AA/LA levels.

HIGH RISK

SUGGESTIONS

According to your genetic result, your need for Omega-3 is quite high. In order to maintain your optimal health, it is recommended to take at least 1.6 g of Omega-3 every day and to consume 2-3 servings of Omega-3 sources per week. Your diet should be enriched with plant omega-3 sources such as low-histamine cold seafood, small oily fish, purslane, spinach, pumpkin, walnuts, flaxseed and chia seeds, which are the best sources of Omega-3 (take into account your food allergies). The use of herbal Omega-3 sources is recommended for vegetarian individuals. Your doctor will initiate supplementation based on your general clinical condition.

FOOD ALLERGY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
IL10	A	AA	High relative risk for food allergy.
IL13	T	CC	Reduced relative risk for shrimp allergy.
IL4	T	CC	Reduced relative risk for food allergy.
FLG	A	GG	Reduced relative risk for atopic dermatitis.

LOW RISK

SUGGESTIONS

According to the results of your genetic test, you have a low risk of Food Allergy. Apart from this, if epigenetic changes are considered, allergic foods can be removed from your diet with doctor control and dietary allergy follow-up can be done.

CBS

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CBS 360	C	CT	Moderate relative risk for homocysteine.
CBS 699	G	GG	High relative risk for homocysteinemia.
CBS	T	CT	Moderate relative risk for homocysteinemia.
CBS	C	TT	Reduced relative risk for homocysteinemia.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your risk of homocysteinemia associated with CBS enzyme activity is average.It is recommended that you consume folic acid, vitamin B6, vitamin B12, betaine, vitamin B2 and magnesium to minimize your risk.You should avoid a methionine-rich diet (consumption of excess red meat and dairy products), smoking and alcohol.

CBS II

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CBS 360	T	CT	Moderate relative risk for higher enzyme activity.
CBS 699	A	GG	Decreased relative risk for higher enzyme activity.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of associated with increased CBS activity is low. Increased CBS enzyme activity leads to excess taurine, ammonia and sulfur groups which are converted into toxic sulfides in the body. This causes an increase in stress and inflammation. In this case, it is recommended to reduce foods containing large amounts of sulfur.

GLUTEN SENSITIVITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
LPP	A	AC	Moderate relative risk for gluten sensitivity.
HLA-DQ2.5	A	GG	Reduced relative risk for gluten sensitivity.
HLA-DQ 2.2	T	TT	High relative risk for gluten sensitivity.
LOC105371664	T	GT	Moderate relative risk for gluten sensitivity.
HLA-DQ4	T	TT	High relative risk for gluten sensitivity.
Intergenic	T	TT	High relative risk for gluten sensitivity.
HLA-DQ8	C	TT	Reduced relative risk for gluten sensitivity.
HLA-DQ2.2	C	TT	Reduced relative risk for gluten sensitivity.
REL	A	AA	High relative risk for gluten sensitivity.
IL18RAP	A	GG	Reduced relative risk for gluten sensitivity.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, you have a moderate risk of gluten sensitivity. If you feel sensitive after gluten consumption in your diet, it is recommended to consume gluten-free foods. Buckwheat, basmati rice, quinoa, chickpea flour, corn, cornmeal, lentils, potatoes, vegetables and fruits, etc. such as gluten-free foods. It is recommended to determine the foods that cause sensitivity by keeping a food consumption record and to pay attention to the gluten content in packaged products. Your doctor can recommend appropriate supplements and recommendations based on your clinical situation. Gluten-containing foods; Wheat and wheat-containing products, rye, barley, processed meat and broth, soy sauce, salad dressings, nuts with sauce, semolina, meat and seafood imitations, prepared foods, etc.

PLANT STEROLS I

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CYP7A1	T	GG	Reduced relative risk for the cholesterol-lowering effect of plant sterols and β-glucan.
CETP	A	AG	Moderate relative risk for triglyceride lowering effect of plant sterols.

LOW RISK

SUGGESTIONS

According to your genetic test results, a low level of risk is seen in the genes associated with plant sterols.

PLANT STEROLS II

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ABCG8	C	GG	Reduced relative risk for gallstones and coronary heart disease.
ABCG8	G	GT	Moderate relative risk for heart disease risk due to increased cholesterol absorption.

LOW RISK

SUGGESTIONS

According to the results of your genetic test, dietary cholesterol is absorbed normally from the intestines and is sufficiently excreted from the bile. Elevated cholesterol and phytosterol levels in your blood are not expected to be associated with this variant. This shows that your risk of gallstones, atherosclerosis and heart disease is lower than those with risky alleles. However, taking into account other possible risks and your clinical situation, it is recommended not to overdo it with phytosterol and cholesterol consumption. You should avoid packaged foods with added phytosterols. You can get doctor's advice by examining your clinical and epigenetic status. Foods with high phytosterol content; Buckwheat, Dry Beans, Cashew, Peanut oil, Peanut, Sunflower, Sunflower oil, Olive oil, Soybean oil, Cottonseed oil, Safflower, Sesame, Sesame oil, Corn oil, Rice bran oil Foods with low phytosterol content: Potato, Tomato, Pear , Lentils, Carrots, Apples, Onions, Bananas, Figs.

DIET AND NUTRITION PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
LACTOSE INTOLERANCE	MCM6, LCT	Consumption of milk and dairy sources in the diet should be balanced. Preferably, vegetable milks can be consumed according to your personal sensitivities (almond, coconut milk, oat milk). You can also consume lactose-free products according to the suitability of your intestinal flora and your personal sensitivities.	Probiotics should be used. In consultation with your doctor, use supplements if your doctor deems it necessary.
CAFFEINE SENSITIVITY	ADORA2A, CYP1A2	Caffeine-containing foods should not be consumed excessively. While consuming foods such as chocolate, green tea, coffee, herbal teas, consumption should be ensured by considering the amount of caffeine. The effect of increased anxiety that develops with coffee consumption can be observed as a result of excessive coffee consumption. Drinks with high caffeine content should not be consumed excessively during the day. There is 150 mg of caffeine in a cup of filter coffee. Be mindful of the amount of caffeine. 1 Cup (60 ml) Espresso: 100 mg. 1 Cup (200ml) Cappuccino: 100 mg. 1 Cup (200ml) Instant Coffee: 100 mg. 1 Cup of Turkish Coffee: 57 mg. 1 Cup (200ml) Decaffeinated Coffee: Maximum 5 mg. Daily caffeine consumption should not exceed 300 mg.	For a balanced and regular life, the panel will be evaluated and your general clinical condition will be evaluated, and if necessary, advice and reinforcement will be given by your doctor.
HISTAMIN SENSITIVITY	HDC, HRH1	If you have histamine intolerance, the consumption of histamine-rich foods should be limited. Foods with high histamine content: fermented products (yogurt, pickles), dried fruits, smoked meats, processed delicatessen products (sausage, salami, sausage, pastrami), some types of fish (salmon) are foods rich in histamine. This group of foods should be avoided.	You can include foods containing probiotics and prebiotics in your balanced and regular diet.
CHOLINE	PEMT, MTHFD1	Your general clinical condition will be evaluated, and if necessary, appropriate supplements and recommendations will be made by your doctor. Choline is one of the nutrients involved in your body's methylation cycle. Consumption of foods containing choline can be increased. Some animal foods, such as eggs, are among good sources of choline. Betaine, a metabolite of choline, works through the methylation cycle, so dietary sources of betaine (beet, quinoa, and spinach) should also be present in your diet.	Folic acid, Magnesium, Choline, consult your doctor and use supplements if your doctor deems it necessary
OMEGA-3	FADS1	Omega-3 requirement can also be obtained by enriching the diet (with low histamine content and suitable cold seafood, small oily fish, plant foods such as purslane, spinach, zucchini). diet can be enriched. Your doctor will initiate supplementation, if necessary, based on your general clinical condition.	You can consult your doctor. Use supplements if your doctor deems it necessary.

FOOD ALLERGY	FLG IL10 IL4 IL13	If you think you have allergies, you can follow up on food-allergy by removing it from your diet and keeping a food diary. You can get a habit of reading labels. You can pay attention to wheat/milk/gluten/allergen/lactose stimulants in foods. Your entire panel and general clinical condition related to food allergy will be evaluated by your doctor.	Probiotic (in consultation with your doctor, use supplements if your doctor deems it necessary)
CBS	CBS CBS360 CBS699	For a healthy life, attention should be paid to the homocysteine level. Factors such as diet and lifestyle, some chronic diseases, heavy metal accumulation, and some vitamin and mineral deficiencies affect homocysteine levels. If homocysteine levels are high in the blood, since some of the contributing factors are related to lifestyle and nutrition, it is possible to intervene to reduce homocysteine levels with certain modifications and nutritional supplements, concentrating on correcting them first. To help lower your homocysteine levels; If you consume a lot of methionine-rich foods such as red meat and dairy products, you should reduce them. For a healthy life, you must acquire the habit of exercise. It has been shown that homocysteine levels decrease even with increased physical activity alone, when specific exercise goals are given to patients who are included in an exercise rehabilitation program for heart disease. As a result of reducing your homocysteine to the optimal level, the methylation process and methionine pathway will work properly, thereby reducing the stress on the endothelial layer lining the vascular system, including the heart and brain vessels, and the occurrence of degenerative changes will be prevented. Numerous studies also show that it is beneficial in lowering homocysteine levels and preventing Alzheimer's disease. In addition, normal homocysteine levels are an indication that there is enough active B12 and folate in the body. Although it is not a measurement considered the gold standard of vitamin stores, it indicates that there is enough vitamin for the proper functioning of the pathways dependent on these vitamins.	Factors that increase the risk of homocysteine elevation should be avoided. These ; Active folate, vitamin B6, vitamin B12, betaine, vitamin B2 and magnesium deficiency, diet rich in methionine (consumption of excessive red meat and dairy products), smoking and alcohol use, coffee consumption, genetic mutations, heavy metal accumulation in the body (especially mercury), obesity, thyroid diseases, kidney diseases, psoriasis and some drugs. Consult your doctor for necessary precautions.
GLUTEN SENSITIVITY	HLA-DQ2.,5 HLA-DQ8, HLA-DQ , LPP, İntergenic, LOC105371664	Your general clinical condition will be evaluated, and if necessary, appropriate supplements and recommendations will be made by your doctor. If you feel sensitive after gluten consumption in your diet, you can try gluten-free foods. Buckwheat, basmati rice, quinoa, chickpea flour, cornmeal, lentils, potatoes and vegetables and fruits are among the gluten-free foods. By keeping a food consumption record, you can detect any food that causes sensitivity. In addition to paying attention to the gluten label in packaged products, if you are sensitive, it may be good for your sensitivity.	You can include foods containing probiotics and prebiotics in your balanced and regular diet.
PLANT STEROLS I	CYP7A1, CETP	Your phytosterol consumption should not be excessive considering your genetic test results as well as other possible risks and clinical situation. You should avoid packaged foods with added phytosterols. You can get doctor's advice by examining your clinical and epigenetic status. Foods with high phytosterol content; Buckwheat, Dry Beans, Cashew, Peanut oil, Peanut, Sunflower, Sunflower oil, Olive oil, Soybean oil, Cottonseed oil, Safflower, Sesame, Sesame oil, Corn oil, Rice bran oil Foods with low phytosterol content: Potato, Tomato, Pear , Lentils, Carrots, Apples, Onions, Bananas, Figs	You can consult your doctor. Use supplements if your doctor deems it necessary.

CBS II	CBS360, CBS699	Your consumption of sulfur-containing foods should be controlled, taking into account your panel body associated with the CBS gene, your clinical condition, as well as other risk factors. This is because excessive consumption of sulfur-containing foods leads to excess taurine, ammonia and sulfur groups that turn into toxic sulfites in the body. This causes an increase in stress and inflammation. Foods containing sulfur: Meat and meat products: Especially red meat, beef, sausage, ham, chicken, duck, turkey, organ meats such as kidney, heart and liver, bone broth, Fish and seafood: Most fish tours, especially big fish, shrimp, mussels Nuts and seeds: especially almonds, Brazil nuts, Brazil nuts, peanuts, walnuts, pumpkin and sesame seeds, soybeans Legumes: Chickpeas, mung beans, lentils, soybeans, kidney beans, peas and dried beans Grains: Barley, Oatmeal Eggs and dairy products: Eggs, cheddar cheese, roquefort cheese, cheddar, parmesan and cow's milk, whey powder Fruit & dried fruit: Apricots, Dried apricots, dried apples, peaches, dried peaches, raisins, prunes, dried dates, dried figs, dried coconut, avocado, chokeberry, raspberry, olive Some vegetables (depending on soil and fertilizer used): Spinach, onions, garlic, leeks, chives, cabbage, brussels sprouts, bok choy, turnips, mushrooms (fried), potatoes (baked/fried), leeks, peas, radishes, horseradish, beetroot, cress, broccoli, arugula, asparagus, mustard greens, seaweed. Specific beverages: Especially coconut milk, soy milk, beer, red/white wine, apple juice, grape and tomato juice, sometimes well water (varies, but city water is fine) Other Foods: Mustard, Bread, and wholemeal pasta moderate Intake of Sulfur/Sulphate Needs to be Reduced Supplements, additives: Alpha lipoic acid, Glucosamine sulfate, Glutathione, Chondroitonesulfate, Methylsulfone	Your doctor will make the necessary recommendations.
PLANT STEROLS II	ABCG8	Considering your genetic test results and clinical findings, attention should be paid to the status of cholesterol and phytosterol levels detected in your blood. In order to minimize the risk of gallstones, atherosclerosis and heart disease, it is recommended not to overdo it with phytosterol and cholesterol consumption. You should avoid packaged foods with added phytosterols. You can get doctor's advice by examining your clinical and epigenetic status. Foods with high phytosterol content; Buckwheat, Dry Beans, Cashew, Peanut oil, Peanut, Sunflower, Sunflower oil, Olive oil, Soybean oil, Cottonseed oil, Safflower, Sesame, Sesame oil, Corn oil, Rice bran oil Foods with low phytosterol content: Potato, Tomato, Pear , Lentils, Carrots, Apples, Onions, Bananas, Figs.	You can consult your doctor. Use supplements if your doctor deems it necessary.

VITAMIN AND NUTRIENT SUPPORT PANEL

VITAMIN B6

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ALPL	C	CT	Moderate relative risk for vitamin B6 levels.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for vitamin B6 shows a moderate risk. In order to determine your vitamin B6 needs, you should definitely evaluate the results of the B6 cofactor CBS360 and CBS699 genes. If your clinical findings suggest that it need B6, it is recommended for your health to consume at least 1.3 mg of essential Vitamin B6 in your daily diet. You can enrich your diet with foods such as red and white meat, fish and seafood, eggs, carrots, spinach, cauliflower, bananas and avocados, nuts, which are sources of Vitamin B6. If you are having difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin B6.

FOLATE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR A1298C	C	AC	Moderate relative risk for folate deficiency.
MTHFR C677T	T	CC	Reduced relative risk for folate deficiency.

LOW RISK

SUGGESTIONS

According to your genetic result, your folate (Vitamin B9) need shows a relatively low risk increase. Folate taken into the body through nutrition is converted to its active form, 5-MTHF, before entering the bloodstream. In addition to the digestive system, it also plays a role in the activation of folic acid in the liver and other tissues. The change in folate level, which is directly related to homocysteine, will affect your quality of life. You should adjust your Folate consumption to 0.4 mg during the day. As a source of Folate in your diet; You can also add a wide variety of foods such as vegetables, legumes, grains, eggs, and fruits. In addition, many foods are supplemented with synthetic folate or folic acid. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Folate (Vitamin B9).

VITAMIN C

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
SLC23A1	A	GG	Decreased relative risk for low plasma vitamin C.

LOW RISK

SUGGESTIONS

According to your genetic result, your need for vitamin C shows a relatively low risk increase. Vitamin C, which has antioxidant properties, is very important for skin health and immune system. Since it is one of the vitamins that are not stored in the body, it should be consumed in a balanced way in your daily diet. The richest sources of vitamin C: You should include red capia pepper, green pepper, fresh seasonal greens, seasonal fruits in your daily diet. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin C.

VITAMIN A

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
BCMO1	G	AG	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	T	AT	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	A	AG	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	G	TT	Reduced relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	T	CT	Moderate relative risk for active vitamin A conversion from beta-carotene.

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, your need for Vitamin A is relatively moderate. Depending on your vitamin A needs, the amount to be taken may vary. Vitamin A exists in two different forms. These are retinol group of animal origin and carotenes of vegetable origin. The most common form of vitamin A of animal origin is retinol. Retinol is stored by the body and then converted into an active form for use. This form of vitamin A is found in animal foods such as liver, eggs, oily fish, milk and cheese. The most common form of carotene, the herbal form of vitamin A, is beta-carotene. This form is abundant in carrots and other orange-colored foods. After digesting β-carotene, the herbal form of vitamin A, it must be converted to retinol for use by the body. It uses the enzyme β-carotene 15,15'-monooxygenase (BCMO1 or BCO1 gene) in this conversion. Genetic variants in the BCO1 gene cause the enzyme to be produced in varying amounts and affect the amount of vitamin A produced from dietary β-carotene. For this reason, it is recommended that people with variants in the BCO1 gene also take animal-derived vitamin A in their diet. A diet enriched with both forms of vitamin A is recommended for your daily needs. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin A.

VITAMIN B12

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR	T	CC	Decreased relative risk for vitamin B12 deficiency and hyperhomocysteinemia.
MTRR	G	GG	High relative risk for hyperhomocysteinemia associated with B12 and folate deficiency.
TCN1	G	AA	Decreased relative risk for low plasma B12 level.
FUT2	G	AG	Moderate relative risk for low levels of serum vitamin B12.
TCN2	G	AA	Decreased relative risk for low plasma B12 level.

LOW RISK

SUGGESTIONS

According to your genetic result suggests that your need for Vitamin B12 has a lower increased risk. B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also linked to cardiovascular diseases that are thought to be mediated through hyperhomocysteinemia.Weakness, fatigue and forgetfulness are common due to low B12. Your genetic sensitivity should be supported with a diet rich in B12 sources in your diet. Besides B12, supportive cobalamin can be obtained from the diet; this vitamin is found in animal products such as meat, eggs and shellfish.You should consume your consumption of animal foods such as eggs in your diet, creating balanced and healthy meals, paying attention to the amount and frequency, and avoiding excessive consumption against hyperhomocysteinemia. If you have difficulty consuming these foods in your diet, consult your physician for B12 supplements in forms appropriate to your genetic sensitivities.

SELENIUM

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
GPX1	T	CT	Moderate relative risk for low GPX enzyme activity.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for Selenium shows a relatively moderate risk increase. You should pay attention to the intake of at least 0.07mg to 0.4mg of selenium per day in your diet. As a source of selenium in your diet, you can choose brazil nuts, cruciferous vegetables, grains, meat and seafood. You should definitely consume foods containing selenium 2-3 times a week. If you have difficulty consuming these foods in your diet, consult your physician for selenium supplements in appropriate forms for all your genetic sensitivities. Foods with high selenium content: Seafood, sea bass, small fish (such as horse mackerel, anchovy), nuts with hard shells: raw almonds, raw hazelnuts, raw walnuts. The highest selenium content is found in the brazil nut (note the amount).

ZINC

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
SLC30A8	T	TT	High relative susceptibility for enhanced insulin response due to zinc supplementation.
IL6	G	CG	Moderate relative risk for zinc requirement.

HIGH RISK

SUGGESTIONS

According to your genetic result, it shows a relatively high risk increase in your Zinc need. Zinc, which includes many activities such as growth, development, protein synthesis, immune system, neurobehavioral developments, is very important for a strong nervous system and immune system. For this reason, attention should be paid to daily zinc intake. As a source of zinc in your diet; You should have plenty of red meat, turkey, chicken, seafood and almonds. In order to get more benefits from zinc, it is recommended to consume foods containing selenium, which has a synergistic effect. If you are having difficulty consuming these foods in your diet, consult your physician for proper Zinc use.

VITAMIN D

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
VDR (VDR-Bsml)	A	AA	High relative risk for low vitamin D level..
CYP2R1	T	CT	Moderate relative risk for low vitamin D level
CYP2R1	A	AG	Moderate relative risk for low vitamin D level.
VDR (VDR-Fokl)	G	AG	Moderate relative risk for low vitamin D level.
GC	C	AA	Decreased relative risk for low vitamin D level.
GC	T	GG	Decreased relative risk for low vitamin D level.
VDR (VDRtalql)	C	CC	High relative risk for low vitamin D level.
VDR (Apal)	A	AA	High relative risk for vitamin D receptor function.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for Vitamin D is moderate. Vitamin D strengthens the immune system, has a protective effect against autoimmune diseases, protects against diseases such as cancer and heart diseases, diabetes and osteoporosis.Vitamin D deficiency causes bone and muscle weakness in adults.Sources recommended for adequate vitamin D intake; D2 form: Vitamin D2, known as ergocalciferol, can be obtained from fortified foods, plant foods, and vitamin supplements.Foods rich in vitamin D include egg yolks, fatty fish, and liver.D 3 form: Vitamin D3, called cholecalciferol, is taken from fortified foods, animal foods and vitamin supplements, it can be synthesized in the skin under the influence of ultraviolet rays.The form synthesized on the skin or taken with food is biologically ineffective.It becomes active after various reactions in the liver and kidney.

VITAMIN K

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
VKORC1	T	CT	Moderate relative affinity for decreased enzyme activity and low dose warfarin requirement.
VKORC1	A	AG	Moderate relative predisposition for decreased enzyme activity and low dose warfarin requirement.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for Vitamin K shows a relatively moderate risk increase. Vitamin K is a type of vitamin that is naturally found in many foods of plant and animal origin. Dark green leafy vegetables are good sources of vitamin K. In case of vitamin K deficiencies caused by inflammatory bowel diseases, absorption disorders or different diseases, a separate treatment plan should be established for the underlying disease in order to prevent this situation. Individuals taking warfarin or a different blood thinner should reduce their vitamin K intake. It is recommended to use it with a Pharmacogenetic approach under the supervision of a doctor, in accordance with your clinical situation.

IRON

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
TF	C	CC	Increased relative risk for iron deficiency anemia.
HFE	C	CC	Increased relative risk for iron deficiency anemia associated with relatively decreased iron load.
HFE	G	GG	Increased relative risk for iron deficiency anemia associated with relatively decreased iron load
TF	A	AG	Moderate relative risk for iron deficiency anemia.
TMPRSS6	G	AA	Decreased relative risk for iron deficiency anemia.
TMPRSS6	A	GG	Decreased relative risk for iron deficiency anemia.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, you have moderate risk of iron deficiency. It is important to consume iron-rich foods to prevent iron deficiency and associated anemia. These include red meat, chicken, turkey, fish, legumes (lentils, chickpeas, beans), dried fruits (especially raisins), green leafy vegetables (spinach, chard, broccoli). Vitamin C can increase the absorption of iron. Therefore, it may be beneficial to consume iron-containing foods together with foods containing vitamin C. For example, fruits such as oranges, tangerines, grapefruits or vegetables such as tomatoes and peppers. The tannin substance in tea and coffee can reduce the absorption of iron. Therefore, limiting the consumption of tea and coffee with meals or drinking these beverages between meals can increase iron absorption. It is important to develop a healthy and balanced eating habit. A diet that includes adequate amounts of various food groups supports the body's overall health and may reduce the risk of iron deficiency. Iron supplements can be given to people with iron deficiency with the recommendation of a doctor. However, iron supplements should only be used under a doctor's supervision, as excessive iron intake can also cause health problems.

RIBOFLAVIN

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR	T	CC	Decreased relative risk for hyperhomocysteinemia and increased Riboflavin requirement.

LOW RISK

SUGGESTIONS

According to your genetic result, your need for Riboflavin B2 shows a low level of risk. Vitamin B2, one of the water-soluble vitamins, is carried through the blood and is excreted through the urine when the body does not need it. Vitamin B2 can be stored in the body in small amounts. Therefore, vitamin B2 can be consumed every day if needed. Vitamin B2 contributes to the reduction of fatigue and exhaustion, energy production metabolism, protection of the mucosa, protection of red blood cells, protection of the skin, protection of vision and iron metabolism. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Riboflavin.

VITAMIN AND NUTRIENT SUPPORT PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
VITAMIN B6	ALPL	Consuming foods containing B6 in your daily diet will be healthy for your B6 levels. Your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. Sources of Vitamin B6: Red and white meat, fish and seafood, eggs, carrots, spinach, cauliflower, bananas and avocados, nuts. If you have difficulty consuming these foods in your diet, vitamin B6 supplementation can be started under the control of a doctor.	Use of active folate (folic acid), vitamin B6, B12, Magnesium. You can consult your doctor. Use supplements if your doctor deems it necessary.
FOLATE	MTHFR	Your folate-related panel and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. There are many genetic and environmental factors that contribute to increased homocysteine levels; diet, stress, lifestyle, some chronic diseases, heavy metal accumulation, some vitamin and mineral deficiencies may increase the risk of homocysteine. Attention should be paid to active folate, vitamin B6, vitamin B12, betaine, vitamin B2 and magnesium deficiency. Adequate amount of need must be provided. Methionine-rich diet (excessive consumption of red meat and dairy products) is not recommended. Folic acid is a synthetically produced folate derivative. The names are often used interchangeably, but there are distinct differences between the two. folate; It is found in a wide variety of foods such as vegetables, legumes, grains, eggs, and fruits. In addition, many foods are supplemented with synthetic folate or folic acid. Folate ingested in the body is converted to its active form, 5-MTHF, before entering the bloodstream. In addition to the digestive system, liver and other tissues take part in the activation of folic acid.	Dark green leafy vegetables should be mainly fed in the diet. According to the results of your B12, B2 and magnesium, choline panels, supplementation can be started by your doctor if necessary.
VITAMIN C	SLC23A1	Vitamin C shows antioxidant properties, so the requirement should be met with your diet during the day. Since vitamin C is one of the vitamins that are not stored in the body, it is recommended to consume it in a balanced way in your daily diet. The richest sources of vitamin C: You should include red capia pepper, green pepper, fresh seasonal greens, seasonal fruits in your daily diet. If you cannot consume it, it may be recommended by your doctor if it is deemed necessary to take vitamin supplements.	Multivitamin (vitamin c) can be used.You can consult your doctor. Use supplements if your doctor deems it necessary.

VITAMIN A	BCMO1	Your panel as a whole and your general clinical situation will be evaluated by your doctor and advice and reinforcement will be given if deemed necessary. The benefit of vitamin A is highest with consumption of red/white meat + Plant-based diet. Vitamin A exists in two forms: Carotenes are plant forms of vitamin A precursor. Beta-carotene, the most common form, is abundant in carrots and other orange-colored foods. An enzyme in the gut also breaks down beta-carotene to form retinol. Those with animal food sources mainly provide retinyl palmitate, which is broken down into retinol in the intestines. In this form it is stored by the body and then converted into an active form for use. After beta-carotene has been digested, mixed with oils, and absorbed, it must be converted to retinol. This conversion uses the enzyme β-carotene 15,15'-monooxygenase (BCMO1 or BCO1 gene), which converts beta-carotene to retinal. Retinal converts to retinol. Genetic variants in the BCO1 gene cause the enzyme to be produced in varying amounts and affect the amount of vitamin A produced from dietary beta-carotene. For this reason, it is recommended that people with variants in the BCO1 gene also take vitamin A of animal origin in their diet. For your daily needs, a plant-based diet should be made with red and white meat, where you can benefit from vitamin A in your diet. A diet enriched with both forms of vitamin A is recommended. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin A.	For both vitamin A use in your diet, you can enrich your diet such as red/white meat + carrot salad / seasonal salad. You can consult the install for the necessary vitamin A intake. If you need it, use supplements.
VITAMIN B12	MTRR, TCN1, TCN2, MTHFR, FUT2	B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also associated with cardiovascular diseases thought to be mediated through hyperhomocysteinemia. Your genetic susceptibility can be supported by a diet rich in B12 sources in your diet. Cobalamin can be obtained from the diet; This vitamin is found in animal products such as meat, eggs, and shellfish. You should consume your animal foods such as eggs in your diet by creating balanced and healthy meals, paying attention to the amount and frequency, and avoid excessive consumption against hyperhomocysteinemia. According to your COMT gene, microbiota analysis and other panels, appropriate B12 supplementation will be recommended by your doctor if necessary. It may be recommended to periodically take B12 supplements in appropriate forms for all of your genetic sensitivities. All supplements should be followed under the supervision of a doctor.	Hydroxyl B12, Adenosyl B12, Methylcobalamin B12, B12 values should be checked regularly, supplementation is started by your doctor if necessary.

SELENIUM	GPX1	Selenium is found in Brazil nuts, cruciferous vegetables, grains, meat and seafood. Foods with high selenium content: You should definitely consume seafood, sea bass, small fish (such as horse mackerel, anchovy) 2-3 times a week. For your selenium need, you should also include nuts in your diet: raw almonds, raw hazelnuts, raw walnuts. The highest selenium content is found in brazil nuts, but be careful with the amount.	In consultation with your doctor, use supplements if your doctor deems it necessary.
VITAMIN D	VDR, GC, CYP2R1	Getting enough vitamin D; strengthens the immune system, shows a protective effect against autoimmune diseases. It protects against diseases such as cancer and heart diseases, diabetes and osteoporosis. Vitamin D deficiency can cause bone and muscle weakness in adults. D2 form: Vitamin D2, known as ergocalciferol, can be obtained from fortified foods, plant foods, and vitamin supplements. Foods rich in vitamin D include egg yolks, fatty fish, and liver. D3 form: Vitamin D3, called cholecalciferol, is taken from fortified foods, animal foods and vitamin supplements, and can be synthesized in the skin under the influence of ultraviolet rays. The form synthesized in the skin or taken with food is biologically ineffective. It becomes active after various reactions in the liver and kidney.	You can consult your doctor for the use of Hydroxyl B12, Adenosyl B12, Methylcobalamin B12, Probiotic, Vitamin D3K2, Calcium. Use supplements if your doctor deems it necessary. When necessary for vitamin D supplementation, attention should be paid to the level of vitamin D according to the results of the blood test.
VITAMIN K	VKORC1	Vitamin K is a type of vitamin that is naturally found in many foods of plant and animal origin. Dark green leafy vegetables are good sources of vitamin K. In case of vitamin K deficiencies caused by inflammatory bowel diseases, absorption disorders or different diseases, a separate treatment plan should be established for the underlying disease in order to prevent this situation. Individuals taking warfarin or a different blood thinner should reduce their vitamin K intake. It is recommended to use it with a pharmacogenetic approach, under the supervision of a doctor, in accordance with your clinical situation.	You can consult your doctor. Use supplements if your doctor deems it necessary.
ZINC	IL6, SLC30A8, SLC30A2	Selenium + zinc work synergistically. Dietary sources of zinc should also be provided with care. In addition, zinc, which includes many activities such as growth, development, protein synthesis, immune system, neurobehavioral developments, should be taken in sufficient amounts for a strong nervous system and immune system. Its richest sources are red meat, turkey, chicken, seafood, and almonds.	You can consult your doctor. Use supplements if your doctor deems it necessary.

IRON	HFE, TF, TMPRSS6	Iron is a trace mineral that has many important functions in the body. Iron has important roles for human health. Oxygen Transport: Hemoglobin is a protein found in red blood cells in the body and carries oxygen from the lungs to tissues. Hemoglobin contains iron in its structure, and iron plays a critical role in the transport of oxygen. Energy Production: Iron is found in the structure of some enzymes such as cytochromes, which are part of cellular respiration required for energy production in the body. Immune System: Iron is necessary for the normal functions of immune system cells. The body needs iron to fight infections and resist diseases. Brain Functions: Iron is necessary for normal brain functions. Iron deficiency can cause loss of concentration, mental fatigue and decreased cognitive functions. Cellular Growth and Development: Iron is essential for cellular growth and development. It is especially important for children to have sufficient iron for their normal development. Iron deficiency can cause many health problems and trigger serious conditions such as anemia. Therefore, consuming iron-rich foods or taking iron supplements is important to meet the body's iron needs. However, it is important to talk to a healthcare professional before using iron supplements because excess iron intake can also lead to health problems.	Please consult your doctor and dietitian for nutrients and food supplements suitable for your genetic test results. Here are some factors to consider in nutrition to prevent or treat iron deficiency: Iron-Rich Foods: It is important to consume iron-rich foods. These include red meat, chicken, turkey, fish, legumes (lentils, chickpeas, beans), dried fruits (especially raisins), green leafy vegetables (spinach, chard, broccoli). Foods Containing Vitamin C: Vitamin C can increase the absorption of iron. Therefore, it may be beneficial to consume iron-containing foods together with foods containing vitamin C. For example, fruits such as orange, tangerine, grapefruit or vegetables such as tomatoes and peppers contain vitamin C. Plant Sources of Iron: Iron from plant foods is less absorbed than iron from animal sources. However, for vegetarian or vegan individuals at risk of iron deficiency, it is important to regularly consume plant sources containing iron (dry legumes, dried fruits, green leafy vegetables). Limiting Tea and Coffee Consumption: The tannin substance in tea and coffee can reduce the absorption of iron. Therefore, limiting the consumption of tea and coffee with meals or drinking these beverages between meals can increase iron absorption. Balanced and Various Nutrition: It is important to develop a healthy and balanced eating habit. A diet that includes adequate amounts of various food groups supports the body's overall health and may reduce the risk of iron deficiency. Iron Supplements: People with iron deficiency can be given iron supplements with the recommendation of a doctor. However, iron supplements should only be used under a doctor's supervision, as excessive iron intake can also cause health problems. If you observe symptoms of iron deficiency or if you are at risk, it is important to speak with a healthcare professional. Your doctor can guide you for a proper diagnosis and treatment.

RIBOFLAVIN	MTHFR	Since riboflavin is a water-soluble vitamin, it is not stored in the body; therefore, it must be taken regularly. A balanced and varied diet greatly reduces the risk of riboflavin deficiency. Foods containing riboflavin; milk, yogurt, cheese, such as milk and dairy products, eggs, especially egg yolks, chicken, red meat and organ meats such as liver, oily fish such as salmon and tuna, green leafy vegetables such as spinach, cabbage, broccoli, oatmeal, brown rice, whole grain products such as whole wheat bread, various nuts, especially almonds, legumes (lentils, beans). In order to prevent riboflavin deficiency, it is important to consume sufficient and balanced amounts from each food group. In particular, consuming the foods mentioned above regularly supports riboflavin intake. Some digestive problems can prevent riboflavin absorption. It may be important to pay attention to digestive health and seek support from a specialist when necessary. Excessive alcohol consumption can disrupt riboflavin absorption and cause the vitamin to be excreted from the body. If it is difficult to meet riboflavin needs with food, riboflavin supplements can be used with the advice of a doctor. Supplements may be necessary, especially for those on a vegan or vegetarian diet or those with absorption problems. Some medications can affect riboflavin levels. It is important to consult a health professional, especially during long-term medication use. Riboflavin needs increase during pregnancy and breastfeeding. Therefore, riboflavin intake should be taken with particular care during these periods.	Since riboflavin is a water-soluble vitamin, it is not stored in the body; therefore, it must be taken regularly. A balanced and varied diet greatly reduces the risk of riboflavin deficiency.

DETOXIFICATION PANEL

PHASE I

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CYP1A1	C	TT	Low degree of relative risk for increased enzymatic activity.
CYP1A2	T	CC	Decreased relative risk for decreased enzyme activity.
CYP1A1	T	CC	Low relative risk for increased enzyme activity.
CYP1A2	A	AC	Moderate relative risk due to the faster enzymatic activity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test result, your risk of Detox Phase I enzymes activity is at an average level. Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. Cooking techniques are important for CYP gene variations. Coal fire, grilling, frying type techniques will have toxic effects due to polycyclic aromatic hydrocarbons (PAH) and heterocyclic amine formation. For this reason, you should prefer oven/steaming/boiling/pot dishes. You should reduce the amount of red meat in your diet and take care to consume it together with a diet rich in seasonal vegetables. You can reduce the toxin in red meat with marinating techniques (lemon, vegetable addition).

PHASE II - GLUTATION TRANSPHERASE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
GSTP1	G	AA	Decreased relative risk for decreased enzyme function.
GSTM1	T	TT	High relative risk for decreased GSTM1 activity.
GSTA1	A	AA	High relative risk for allergy and asthma risk due to low or dysfunctional enzyme activity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your risk of Phase II Glutathione S Transferase enzyme activity is moderate. Your panel as a whole and your general clinical situation will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced.

PHASE II - ALCOHOL METABOLISM

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADH1B	A	GG	Decreased relative risk for alcohol intolerance.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of alcohol intolerance is low. However, it is recommended that you reduce your alcohol consumption in terms of other possible health risks.

PHASE II - NFE2L2

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
NFE2L2	A	AA	High relative risk for oxidative damage.
NFE2L2	C	CC	High relative risk for oxidative damage.
NFE2L2	A	AG	Moderate relative risk for oxidative damage.

HIGH RISK

SUGGESTIONS

According to your genetic test result, your oxidative damage risk is high due to the decreased Nrf2 activity which has protective effect against the oxidative damage. To increase Nrf2 activity, it is recommended to consume sulforaphane, a natural substance found in broccoli sprouts, Brussels sprouts, cabbage and cauliflower, curcumin, ellagic acid (Berries, pomegranate), carotenoids ((lycopene and Astaxanthin), resveratrol, tea polyphenols, olive oil, ginger, cinnamaldehyde, zinc and selenium and engage in physical activity.

PHASE II - UGT

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
UGT1A1*60	C	CC	High relative risk for decreased enzyme activity and increased bilirubin.
UGT1A1*6	A	GG	Reduced relative risk for hyperbilirubinemia.
UGT1A1	T	TT	High relative risk for increased bilirubin and gallstones.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your UGT activity is moderate. It is recommended to consume cruciferous vegetables, broccoli, cabbage, brussels sprouts, cauliflower and cabbage, which cause increased UGT production. Since UGT is responsible for the breakdown of plastics in the body, it is important to avoid these substances.

PHASE II - NATS

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
NAT1*3	A	AC	Moderate relative risk for slow acetylation.
NAT1*14	A	GG	Decreased relative risk for slow acetylation.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of NATS activity is low. To minimize your risk, it is recommended not to smoke and to consume less fried meat to limit the intake of heterocyclic aromatic amines.

PHASE II - NQO1

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
NQO1	T	CC	Decreased relative risk for quinone and benzene toxicity due to decreased enzyme activity.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of NQO1 enzyme activity is low. To minimize your risk, you should stay away from external toxins such as benzene, which are found in gasoline fumes, laundry detergent, furniture polish, industrial uses, pesticides, and smoke.

DETOXIFICATION PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
PHASE I	CYP1A1, CYP1A2	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. Cooking techniques are important for CYP1 variations. Coal fire, grilling, frying type techniques will have toxic effects due to polycyclic aromatic hydrocarbons (PAH) and heterocyclic amine formation. For this reason, you should prefer oven/steaming/boiling/pot dishes. For example: high-temperature cooking when consuming meat, black burns, charcoal cooking, consuming smoked meat, consuming processed delicatessen products (smoked turkey, salami, etc.) put you at a high risk of DNA damage. For this reason, you should consume these consumption patterns or foods limitedly and pay attention to the amount. You should reduce your consumption of red meat in your diet and take care to consume it together with a diet rich in seasonal vegetables. You can reduce the toxin in red meat with marinating techniques (lemon, vegetable addition). You should not consume grapefruit juice when you are taking medication. Grapefruit juice inhibits certain CYP enzymes, making it harder for you to metabolize drugs. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.
PHASE II - GLUTATION TRANSPHERASE	GSTM1, GSTP1, GSTA1	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.
PHASE II - ALCOHOL METABOLISM	ADH1B	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.

PHASE II - NFE2L2	NFE2L2	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements. NRF2 activators: Sulforaphane (broccoli sprouts, Brussels sprouts, cabbage and cauliflower), Ellagic acid (Berries, pomegranate, grapes, walnuts, and blackcurrants), Astaxanthin (Algae, yeast, salmon, trout, krill, shrimp, and crayfish), Cinnamaldehyde (cinnamon, tomatoes, carrots, spinach, cucumber, lettuce, celery, apples and oranges), lycopene (tomatoes and other red fruits), tea polyphenols (cathechins), resveratrol (red grapes, peanuts, pineapple), olive oil, ginger, zinc, selenium	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.
PHASE II - UGT	UGT	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.
PHASE II - NATS	NATs	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.
PHASE II - NQO1	NQO1	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.

GUT MICROBIOME

GUT-MICROBIOM GENES

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
SLC39A8	T	CC	Impaired gut microbiota and reduced relative risk for Crohn's disease.
LCT	C	CC	Highly relative predisposition for Bifidobacteria abundance due to absence of lactase activity.
IL4	T	CC	Decreased relative risk for Clostridium difficile increase in inflammatory bowel disease.
FUT2	A	AG	Moderate relative risk for absence of bifidobacteria.
APOA5	C	TT	Decreased relative risk for bifidobacteria deficiency, high triglycerides and metabolic syndrome.

LOW RISK

SUGGESTIONS

According to your genetic result, a low increased risk for your gut microbiome is observed. Intestinal regulation should be provided with dysbiosis and anti-inflammatory nutrition. Depending on your gene result for LCT and considering your clinical condition, lactose-containing foods may be restricted periodically. Your entire panel will be evaluated by your doctor and advice and warnings will be given if necessary. Consult your doctor for the use of probiotic supplements suitable for the microbiota test and the appropriate probiotic for intestinal flora.

GUT MICROBIOME

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
GUT-MICROBIOM GENES	FUT2, LCT, SLC39A8, APOA5, IL4	Intestinal regulation should be provided with dysbiosis and anti-inflammatory nutrition. Depending on your gene result for LCT and your clinical condition, lactose-containing foods may be restricted periodically. Your entire panel will be evaluated by your doctor and advice and warnings will be given if necessary. As a result of the microbiota test, appropriate probiotic supplements and intestinal flora will be supported by appropriate supplements if your doctor deems it necessary.	Probiotic use. In consultation with your doctor, use supplements if your doctor deems it necessary.

MENTAL HEALTH PANEL

SEASONAL DEPRESSION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
PER3	G	CC	Reduced relative risk for seasonal depression.
OPN4	T	CT	Moderate relative risk for sensitivity to low light levels and seasonal depression.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of seasonal depression is low. In order to minimize your risk of depression, you should make up your diet with healthy and balanced meals during the day according to your nutrigenetic test results and current clinical findings. You should be protected from packaged food and external toxins (chemicals, microplastics, cigarette smoke, cosmetic products), and you should prefer environmentally friendly products as much as possible. You should pay attention to your sleep patterns and increase your physical activity.

INFLAMMATION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
IL1B	G	GG	High relative risk for depression.
TNF	A	GG	Decreased relative risk for increased TNF-alpha and depression.
IL6	C	CG	Moderate relative risk for depression associated with stress factors.
IL6	A	AG	Moderate relative risk for higher IL 6 and depression.

MEDIUM RISK

SUGGESTIONS

According to your genetic test result, your risk of inflammation-related depression is average. In order to prevent the risk of depression due to inflammation, you can initiate epigenetic changes with inflammation-reducing nutrition and lifestyle recommendations. For this, you should determine your appropriate exercise routine and increase your physical activity. Your vitamin needs should be met according to the nutrigenetic test results, you should especially pay attention to magnesium.

ANXIETY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
FKBP5	T	CT	Moderate relative risk for anxiety and depression tendency.
OXTR	G	AG	Moderate relative risk for child and adult separation anxiety.
GNB3	T	CC	Decreased relative risk for child and adult separation anxiety.
ADORA2A	T	CC	Decreased relative risk for panic disorder and caffeine-related anxiety.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of anxiety is low. Anxiety is associated with oxytocin level and oxytocin receptor variant. A diet rich in vitamin C, which acts as a cofactor to create oxytocin, will reduce your risk of anxiety. Seasonal vegetables and fruits, which are the best sources of vitamin C, should be consumed raw.

SEROTONIN

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
HTR2C	C	GG	Reduced relative risk for weight gain associated with the use of clozapine and risperidone.
HTR1A	G	CG	Moderate relative risk for higher impulsiveness.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of experiencing problems related to Serotonin is low. Serotonin, known as the happiness molecule, is a kind of chemical that provides communication between nerves. Serotonin is synthesized from tryptophan. Protein-containing foods are foods rich in tryptophan. Supplementing foods containing tryptophan with carbohydrates has a positive effect on serotonin levels.

TRIPTOPHANE METABOLISM

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTNR1B	G	CC	Decreased relative risk for Type 2 Diabetes and gestational diabetes.
TPH2	T	AT	Moderate relative risk for circadian rhythm disturbance in persons with depression.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of experiencing problems related to Tryptophan metabolism is low. Tryptophan is an essential amino acid involved in the synthesis of compounds such as serotonin and melatonin. It takes part in physiological functions related to sleep and mental health. As a result of increased inflammation in the body, tryptophan is converted to kynurenine, which has a neurotoxic metabolite called quinolinic acid, instead of being converted to serotonin. In order to reduce inflammation, it is important to feed according to gut microbiota and nutrigenetic test results. Epigenetic diet list should be followed with personalized probiotic supplement.

DOPAMIN RECEPTOR

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
DRD4	C	CC	High degree of relative risk for a personality looking for novelty and more impulsive.
COMT	G	AG	Moderate relative affinity for COMT and Dopamine levels.
DRD3	C	TT	Decreased relative risk for obsessive-compulsive personality disorder.
DRD1	A	AG	Moderate relative risk for problem in social interaction.

MEDIUM RISK

SUGGESTIONS

According to your genetic test result, your dopamine receptor-related risk is average. Although dopamine is a neurotransmitter and therefore only seems to be connected to the brain, your gut also plays an important role in regulating dopamine levels, so probiotics can help restore dopamine balance. Too much dopamine can lead to serious mental health problems like mania or schizophrenia. On the contrary, insufficient dopamine can cause symptoms of depression.

COMT

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
COMT	C	CT	Moderately relative predisposition for COMT activity.
COMT	G	AG	Moderate relative affinity for COMT activity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test result, your COMT enzyme activity is at an average level. Since COMT enzyme activity is dependent on the methylation cycle, a diet rich in minerals such as folate, vitamins such as B12 and B2 and minerals such as magnesium required in the methylation cycle is also recommended for COMT activity. For balanced COMT activity, it is important to control your weight, eat adequate and balanced nutrition, and stay away from toxins.

MAO

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MAO	G	TT	High relative predisposition for low MAO activity.

LOW RISK

SUGGESTIONS

According to the results of your genetic test, MAO works slowly. Neurotransmitters such as norepinephrine, serotonin, and dopamine will be metabolized slowly. Attention should be paid to the use of foods such as Resveratrol, Curcumin, Quercetin, Asparagus and Licorice root, which reduce MAO activity. Just like the COMT gene, the MAO gene is affected by the methylation cycle; Therefore, folate, magnesium, B12, B6, B2 sources can be used with diet or as a supplement if your doctor deems necessary. If MAO is slow; The neurotransmitters norepinephrine, serotonin, and dopamine will be metabolized slowly. Attention should be paid to the use of foods that reduce MAO activity. Foods that reduce MAO activity: Resveratrol, Curcumin, Quercetin, Asparagus, Licorice root. Vitamin B2 and copper supplements will be supplemented if necessary according to your panel integrity. Just like the COMT gene, the MAO gene is also affected by the methylation cycle, so folate, magnesium B12, B6, B2 sources can be started with diet or as a supplement if your doctor deems necessary. You should avoid foods containing tyramine. Ripened cheese (blue cheeses such as Stilton and Gorgonzola; and Camembert) Fermented foods (pickles, etc.); Processed meats (sausage, salami, sausage, dried meat, pastrami, smoked meat, etc.); Smoked meats (red meat, fish, chicken, etc.); Chicken and beef liver, snow peas, broad beans and their shells; Soybean; Sauces (Sauces such as soy sauce, shrimp sauce, fish sauce, miso and teriyaki sauce); Yeast foods Dried and ripened fruits (bananas, avocados, figs, plums, etc.); Alcoholic beverages (red wine, white wine (wine should not exceed 60/120 ml/day), beer (max 2 small bottles), etc.) Chocolate, coffee, cola Spoiled and improperly stored foods.

MENTAL HEALTH PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
SEASONAL DEPRESSION	TNF-A, IL6, IL1B	Depending on the increased inflammation, you can initiate epigenetic changes with anti-inflammatory diet and lifestyle suggestions that prevent the risk of depression in the coming years. Your general panel will be evaluated by your doctor and supplementation will be started if necessary. During the day, you should create your diet from healthy and balanced meals according to your genetic sensitivities and current clinical findings. You should be protected from packaged food and external toxins (chemicals, microplastics, cigarette smoke, cosmetic products), and you should prefer environmentally friendly products as much as possible. You should determine your appropriate exercise routine in all of your personal sensitivities and increase your physical activity. It is necessary to eliminate vitamin deficiencies and pay particular attention to magnesium. If there is dysbiosis according to the microbiota test result, the intestine should be regulated with appropriate probiotics. Studies on serotonin and gut microbiota are seen in the studies. When deemed necessary, a microbiota test can be performed by your doctor for appropriate probiotic supplement recommendation. It's important to remember that routine exercise and an anti-inflammatory diet are important in reducing inflammation. (Consult your doctor and use supplements if your doctor deems it necessary)	Consult your doctor and use supplements if your doctor deems it necessary.
INFLAMMATION	PER3, TNF-A , IL6, IL1B	You can initiate epigenetic changes with anti-inflammatory diet and lifestyle suggestions that prevent the risk of depression associated with ınflammation. Your general panel will be evaluated by your doctor and supplementation will be started if necessary. During the day, you should create your diet from healthy and balanced meals according to your genetic sensitivities and current clinical findings. You should be protected from packaged food and external toxins (chemicals, microplastics, cigarette smoke, cosmetic products), and you should prefer environmentally friendly products as much as possible. You should determine your appropriate exercise routine in all of your personal sensitivities and increase your physical activity. It is necessary to eliminate vitamin deficiencies and pay particular attention to magnesium. If there is dysbiosis according to the microbiota test result, the intestine should be regulated with appropriate probiotics. Studies on serotonin and gut microbiota are seen in the studies. When deemed necessary, a microbiota test can be performed by your doctor for appropriate probiotic supplement recommendation. It's important to remember that routine exercise and an anti-inflammatory diet are important in reducing inflammation. (Consult your doctor and use supplements if your doctor deems it necessary)	Consult your doctor and use supplements if your doctor deems it necessary.
ANXIETY	ADORA2A, OXTR, GNB3, FKBP5	Anxiety has been shown to be associated with oxytocin level and oxytocin receptor variant in studies. Vitamin C is the cofactor to form oxytocin. Therefore, a diet rich in vitamin C will reduce anxiety markers. The best sources of vitamin C are raw seasonal vegetables and fruits.	VITAMIN C, Multivitamin Consult your doctor and use supplements if your doctor deems it necessary

SEROTONIN	HTR1A, HTR2C	Serotonin, known as the happiness molecule, is a kind of chemical that provides communication between nerves. Serotonin is synthesized by tryptophans. Mood disorders are associated with depression, anxiety, neurotransmitter. Alleles in related genes explain the risk levels in pathways associated with neurotransmitters. Tryptophan enables the production of the chemical serotonin. Protein foods are foods rich in tryptophan; In addition, supplementing tryptophan-containing foods with carbohydrates has a positive effect on serotonin levels.	PROBIOTIC, VITAMIN C, ZINC, MAGNESIUM, VITAMIN B6, CALCIUM, IRON Consult your doctor and use supplements if your doctor deems it necessary.
TRIPTOPHANE METABOLISM	TPH2, MTNR1B	It is an essential amino acid involved in the synthesis of compounds such as tryptophan, serotonin, and melatonin. It takes part in physiological functions related to sleep and mental health. In general, increased inflammation in the body produces kynurenine, which has a neurotoxic metabolite called quinolinic acid, rather than the body converting tryptophan to serotonin. We should not forget that the gut microbiota is also important to reduce this inflammation. A personalized probiotic supplement should be started and an epigenetic diet list should be followed for 3 months.	Consult your doctor and use supplements if your doctor deems it necessary.
DOPAMIN RECEPTOR	DRD1, DRD3, COMT, DRD4	Your risk level is average. Although dopamine is a neurotransmitter and therefore only seems to be connected to the brain, your gut also plays an important role in regulating dopamine levels, so probiotics can help. Because dopamine is an important neurotransmitter that helps regulate your emotional response to stimuli, too much or too little can cause or worsen the symptoms of certain mental health disorders. Too much dopamine can lead to serious mental health problems like mania or schizophrenia. On the contrary, insufficient dopamine can cause symptoms of depression.	Consult your doctor and use supplements if your doctor deems it necessary.
COMT	COMT	Since our COMT activity depends on the methylation cycle, the vitamins and minerals required in the methylation cycle are also required here. Your diet can be enriched with dietary sources of folate B9, cobalamin B12, riboflavin B2 and magnesium. PREFERABLY AdenosylB12 (adenosylcobalamin) HydroxyB12 (hydroxocobalamin) MethylB12 (methylcobalamin) A combination of adenosyl, hydroxy and methylB12 is suitable. Your general panel will be evaluated by your doctor according to your whole and clinical situation, and supplementation will be started if necessary. FOR BOTH COMT (FAST-SLOW) Optimizing weight A clean, adequate and balanced diet (compliance with a nutrigenetic diet) It is important to avoid BPA and other plastic products. (because they contain xenoestrogen, which mimics estrogen, which affects the COMT enzyme, which tries to optimize estrogen. Just like the COMT gene, the MAO gene is also affected by the methylation cycle, so folate, magnesium B12, B6, B2 sources can be started with diet or as supplements if your doctor deems it necessary.	Your general panel will be evaluated by your doctor and supplementation will be started if necessary. You can consult your doctor for natural antioxidant components. If your doctor deems it necessary, you can start using supplements.

MAO	MAO	Foods that reduce MAO activity should be used with caution. Foods that reduce MAO activity: Resveratrol, Curcumin, Quersetin, Asparagus, Licorice root. Vitamin B2 and copper supplements will be supplemented if necessary according to your entire panel. Just like the COMT gene, the MAO gene is also affected by the methylation cycle, so folate, magnesium B12, B6, B2 sources can be started through diet or as supplements if your doctor deems necessary. You should avoid foods containing tyramine. Ripened cheese (blue cheeses such as Stilton and Gorgonzola; and Camembert) Fermented foods (pickles etc.); Processed meats (sausage, salami, sausage, dried meat, bacon, smoked meat etc.); Smoked meats (red meat, fish, chicken etc.); Chicken and beef liver Snow peas, broad beans and their skins; Soybeans; Sauces (sauces such as soy sauce, shrimp sauce, fish sauce, miso and teriyaki sauce); Fermented foods Dried and ripened fruits (bananas, avocados, figs, plums, etc.); Alcoholic beverages (red wine, white wine (wine should not exceed 60/120 ml/day), beer (max 2 small bottles), etc.); Chocolate, coffee, cola; Spoiled and improperly stored foods.	If necessary, your doctor and dietitian may recommend supplements.

AUTOIMMUNE PANEL

TNF-ALFA AND IL-17

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
TNF-a	C	TT	Increased TNF-A and decreased relative risk for chronic inflammatory diseases.
TNF-a	A	GG	Increased TNF-A and reduced relative risk for chronic inflammatory diseases.
IL17A	A	GG	Decreased relative risk for inflammatory and autoimmun diesases.
CTLA4	G	GG	Increased relative risk for autoimmun diesases.
IL17A	G	GG	High relative risk for autoimmune thyroiditis.
STAT4	T	TT	Increased relative risk for autoimmune diseases.

MEDIUM RISK

SUGGESTIONS

According to your genetic test result, your risk of autoimmune disease is at an average level. To minimize your risk, antioxidant-rich seasonal vegetables and fruits should be added to the diet, taking into account your personal sensitivities. Omega-3 and antioxidant vitamin group (vitamin C, selenium, vitamin E) intake should be sufficient. According to the nutrigenetic diet list, the need for vitamins should be met. Support can be provided with additional reinforcements when necessary. Adequate sleep should be provided at night for general health in the circadian rhythm and hormonal balance. Exercise and personalized physical activity are also recommended.

AUTOIMMUNE PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
TNF-ALFA AND IL-17	TNF-a, IL-17A, IL-17F	Autoimmune means that the body creates an immune response against itself. Under normal conditions, the immune system undertakes the task of recognizing and destroying harmful microorganisms that enter the body from the outside. There are various mechanisms that enable the immune system to distinguish between foreign cells and body cells. Irregularity in these mechanisms; causes the immune system to perceive body cells as foreign. As a result, antibodies formed in the immune system damage body cells. The main goal is to control the overreaction of the immune system and reduce the severity of symptoms. Seasonal vegetables and fruits rich in antioxidants should be added to the diet, taking into account your personal sensitivities. Omega-3 and antioxidant vitamin group (vitamin C, selenium, vitamin E) intake should be sufficient. According to the nutrigenetic diet list, the need for vitamins should be met. Support can be provided with additional reinforcements when necessary. Adequate sleep should be provided at night for general health in the circadian rhythm and hormonal balance. Studies indicate that exercise and physical activity tailored to the person are protective.	For OMEGA-3 and Antioxidant, consult your doctor and use supplements if your doctor deems it necessary.

METABOLIC SYNDROME PANEL

DIABETES

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
WSF1	G	AG	Moderate relative risk for type 2 diabetes.
MTNR1B	G	CC	Decreased relative risk for Type 2 Diabetes and gestational diabetes.
HHEX	G	AG	Moderate relative risk for type 2 diabetes.
SLC30A8	C	TT	Decreduced relative risk for type 2 diabetes.
PPARG	C	CC	High relative risk for metabolic syndrome.
TCF7L2	T	AT	Moderate relative risk for Type 2 diabetes and decreased beta cell function.
TCF7L2	T	CT	Moderate relative risk for impaired beta cell function and type 2 diabetes.
HHEX	G	AG	Moderate relative risk for type 2 diabetes.

MEDIUM RISK

SUGGESTIONS

Based on your genetic test results, your risk of Type 2 diabetes is average. In order to minimize the risk of diabetes you may encounter in the future, adequate and balanced nutrition should be provided, and at least five portions of vegetables and fruits should be consumed per day. Whole grain products and legumes should be preferred instead of simple carbohydrates such as sugar, and simple carbohydrates should not exceed 10 percent of daily energy. An active lifestyle should be adopted, at least 30 minutes of moderate-intensity activity should be done regularly, at least 5 days a week.

INSULIN RESISTANCE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ENPP1	C	AA	Decreased relative risk for hyperglycemia and insulin resistance.
MTNR1B	G	CC	Decreased relative risk for impaired fasting glucose due to impaired insulin response.
IRS1	T	CC	Decreased relative risk for impaired insulin signaling.
KCNH2	G	TT	Decreased relative risk for decreased fasting plasma insulin and glucagon response.
IRS1	C	CT	Moderate relative risk for impaired insulin signal and Type 2 diabetes.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of insulin resistance is low. To minimize your risk, you should avoid processed foods, excessive consumption of fat, unnatural simple sugars, fresh vegetables and fruits as a source of fiber, whole grain products and legumes as a source of carbohydrates.

NAFLD

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
GCKR	T	CT	Moderate relative risk for hypertriglyceridemia and fatty liver.
IFNL3	C	CC	High relative risk for NAFLD (oxidative stress).
HFE	G	CC	Decreased relative risk for NAFLD risk.
HFE	A	GG	Reduced relative risk for NAFLD risk.
CYP2E1	T	CC	Decreased relative risk for fatty liver, increased by alcohol.
SERPİNA1	A	GG	Reduced relative risk for Alpha-1 antitrypsin deficiency and NAFLD.
SOD2	T	CC	Decreased relative risk for NAFLD.
TM6SF2	T	CT	Moderate relative risk for NAFLD.
PNPLA3	G	CG	Moderate relative risk for NAFLD.
PEMT	T	CT	Moderate relative risk for NAFLD.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of non-alcoholic fatty liver disease is low. In order to minimize your risk, you should pay attention to weight control and alcohol should not be consumed. To reduce the liver load, natural foods should be preferred and additives should be avoided. Consumption of fibrous foods such as vegetables and fruits should be increased, especially artichoke and celery should be preferred.

METABOLIC SYNDROME PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
DIABETES	MTNR1B, TCF7L2, SLC30A8, IRS1, HHEX, PPARG, KCNJ1	Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary. Tips for preventing type 2 diabetes and its complications: Adequate and balanced nutrition should be provided; At least five servings of vegetables and fruits should be consumed per day. Whole grain products and legumes should be preferred instead of simple carbohydrates such as sugar, and simple carbohydrates should not exceed 10 percent of daily energy. It should be noted that the amount of salt consumed per day should not exceed 5 g. An active lifestyle should be adopted, at least 30 minutes of moderate- intensity activity should be done regularly, at least 5 days a week. (fast walking, etc.). Overweight people should do more physical activity to lose weight. Smoking should not be used, excessive alcohol should not be consumed. Appropriate body weight should be targeted. 25-30 percent of the energy needed daily should be provided from fats, and the energy rate from saturated fatty acids should be below 10 percent.	Zinc and Magnesium for consult your doctor and use supplements if your doctor deems it necessary.
INSULIN RESISTANCE	KCNJ11, IRS1, ENPP1, KCNH2 ,MTNR1B	Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary. Genetic factors increase the likelihood of insulin resistance. People with a family history of insulin resistance are at higher risk of developing this condition. Lack of exercise is another important factor affecting insulin resistance. It is known that insulin resistance is higher in individuals who do little or no exercise. Age factor is also effective in the emergence of insulin resistance. In some studies, it is seen that the insulin resistance of young individuals is higher than the elderly. Processed foods should be avoided. Consumption of white bread, pasta, simple sugar sources, rice pilaf and starchy foods should be avoided. Excessive fat consumption should be avoided, fatty parts of meat should not be consumed. Fresh fruits, which are a source of fiber, should be preferred instead of dried fruits. In the nutrition program, carbohydrate, protein and fat-based foods should be balanced. Whole grain products and legumes should be consumed as carbohydrate sources. Fruit consumption should not be stopped. In addition to fruit consumed between meals, protein sources should be preferred. Fiber source vegetables affect blood sugar to rise later. For this reason, salad should be added to meals at meals.	Zinc and Magnesium for consult your doctor and use supplements if your doctor deems it necessary.
NAFLD	PNPLA3, TM6SF2, CYP2E1, HFE, GCKR, PEMT, SERPINA1, SOD2	Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary. Fatty liver is an important health problem that is frequently encountered especially in men and should never be neglected. Regardless of gender, it can invite health problems. The most important thing that can be done for those who are overweight is to change the diet and lose weight. Alcohol should not be consumed. To reduce the liver load, natural foods should be preferred and additives should be avoided. Consumption of fibrous foods such as vegetables and fruits should be increased, especially artichoke and celery should be preferred (The most important feature of artichoke is that it cleans the liver and provides easy flow of bile). Delicatessen products (such as sausage, salami, sausage) and offal should be avoided. Excessive consumption of nuts and fried products should be avoided. Intensive carbohydrate and simple sugar consumption should be reduced. Exercising regularly should become a part of life. Your general clinical condition will be evaluated by your doctor.	Zinc and Magnesium for consult your doctor and use supplements if your doctor deems it necessary.

CARBOHYDRATE AND FAT PANEL

CARBOHYDRATE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADRB2	G	CC	Decreased relative predisposition for obesity.
FABP2	T	CT	Moderate relative risk for saturated fat and refined carbohydrate sensitivity.
PPARG	C	CC	High relative risk for metabolic syndrome and insulin resistance.
IRS	C	CT	Moderate relative risk for insulin resistance, hyperinsulinemia, T2DM and obesity.
TCF7L2	T	CT	Moderate relative risk for beta cell dysfunction and diabetes.

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, your sensitivity to carbohydrates is average. Refined carbohydrate intake affects your carbohydrate sensitivity. You can meet your carbohydrate needs by increasing the number of fruits in portions, consuming starchy vegetables, legumes and/or whole grains. You should be careful with foods and drinks containing refined carbohydrates.

FAT

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADRB2	G	CC	Decreased relative predisposition for obesity.
FABP2	T	CT	Moderate relative risk for saturated fat and refined carbohydrate sensitivity.
PPARG	C	CC	High relative risk for metabolic syndrome and insulin resistance.
ADRB3	C	CT	Moderate relative predisposition for obesity.
APOA2	C	TT	Decreased relative risk for increased obesity risk with high saturated fat consumption.
TCF7L2	T	CT	Moderate relative risk for beta cell dysfunction and diabetes.
FTO	A	AT	Moderate relative risk for VKI and obesity.

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, your oil sensitivity is at an average level. These genes are associated with the way dietary fat is absorbed, transported and metabolized in your diet, and their blood-lipid profile. We recommend 35-40% of your daily fat calories and 5% saturated fats. For a healthy life, you should prefer natural oil sources. Olive oil, fish oil, avocado, seeds and nuts can be preferred for natural oil sources.

CARBOHYDRATE AND FAT PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
CARBOHYDRATE	TCF7L2, IRS, PPRAG, FABP2, ADRB2	It is recommended to limit the intake of refined carbohydrates for a healthy life. You should prefer unrefined carbohydrates such as legumes, whole grains, vegetables and fruits in your diet. You can also increase your fiber intake for your digestive system. It is recommended that you limit processed foods and sugary drinks. You should divide your carbohydrate intake into balanced meals.	We recommend a balanced and regular diet as well as a Mediterranean style diet.
FAT	TCF7L2, FTO, ADRB2, ADRB3, PPRAG, FABP2, APOA2	Fats are very important for a healthy life. Fish and fish oils, seeds, nuts, eggs, avocado and olive oil can be taken as natural and healthy fat sources. Your sensitivity to fat types is determined according to your genetic test results. Some people may be successful in a lifestyle such as a high-fat, low-carbohydrate diet (ketogenic diet), while others may fail. This is due to genetically different fat sensitivities. A diet may be chosen specifically for your fat sensitivity, which is determined by the genes examined in the panels. Attention should be paid to refined oils taken with ready-made foods. In your diet, you should pay attention to the hidden fats found in red meat, cheese, pastries, prepared foods and packaged foods.	We recommend a balanced and regular diet as well as a Mediterranean style diet.

WEIGHT CONTROL PANEL

LEPTIN

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
LEPR	G	AG	Moderate relative risk for obesity and Type 2 diabetes.
LEP	A	GG	Reduced relative risk for obesity and Type 2 diabetes.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of obesity related to the Leptin gene is low. However, if you are overweight, specialist help should be sought and an appropriate treatment plan should be determined. The level of physical activity should be increased, high-calorie, unnatural sugar-containing foods rich in saturated fats should not be consumed. Attention should be paid to the variety of food, vegetables and fruits should be consumed in season.

MC4R

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MC4R	A	GG	VKI, waist circumference length, and reduced relative risk for obesity.
MC4R	C	TT	Decreased relative risk for VKI and obesity.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of obesity associated with the MC4R gene is low. However, if you are overweight, specialist help should be sought and an appropriate treatment plan should be determined. The level of physical activity should be increased, high-calorie, unnatural sugar-containing foods rich in saturated fats should not be consumed. Attention should be paid to the variety of food, vegetables and fruits should be consumed in season.

FTO

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
FTO	A	AT	Moderate relative risk for VKI and obesity.
ADİPOQ	C	TT	Decreased relative risk for Type 2 Diabetes.
FTO	T	GT	Moderately relative risk for VKI and obesity.
FTO	A	AT	Moderate relative risk for VKI and obesity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your risk of obesity associated with the FTO gene is average. If you are overweight, you should seek expert help and an appropriate treatment plan should be determined. The level of physical activity should be increased, high-calorie, unnatural sugar-containing foods rich in saturated fats should not be consumed. Attention should be paid to the variety of food, vegetables and fruits should be consumed in season.

WEIGHT CONTROL PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
LEPTIN	LEP, LEPR	If you are overweight, specialist help should be sought and an appropriate treatment plan should be determined in order to lose weight and control the weight. Physical activity level should be increased, daily walking and exercises should be made a habit. Avoid high-calorie, ready-to-eat foods that have a long shelf life. Unnatural sugar should not be consumed and attention should be paid to daily salt intake. Healthy cooking techniques should be preferred. You should consume the amount of water you need during the day. Eating habits should be changed and meals should be eaten slowly. Pay attention to fat consumption, saturated fats should be taken as little as possible. Attention should be paid to food diversity and a balanced diet should be provided from each food group. Vegetables and fruits should be consumed in season. Alcohol intake should be avoided Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary.	You can talk to your doctor and dietitian. You can apply a specially created diet plan for you.
MC4R	MC4R	If you are overweight, specialist help should be sought and an appropriate treatment plan should be determined in order to lose weight and control the weight. Physical activity level should be increased, daily walking and exercises should be made a habit. Avoid high-calorie, ready-to-eat foods that have a long shelf life. Unnatural sugar should not be consumed and attention should be paid to daily salt intake. Healthy cooking techniques should be preferred. You should consume the amount of water you need during the day. Eating habits should be changed and meals should be eaten slowly. Pay attention to fat consumption, saturated fats should be taken as little as possible. Attention should be paid to food diversity and a balanced diet should be provided from each food group. Vegetables and fruits should be consumed in season. Alcohol intake should be avoided Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary.	You can talk to your doctor and dietitian. You can apply a specially created diet plan for you.
FTO	FTO	If you are overweight, specialist help should be sought and an appropriate treatment plan should be determined in order to lose weight and control the weight. Physical activity level should be increased, daily walking and exercises should be made a habit. Avoid high-calorie, ready-to-eat foods that have a long shelf life. Unnatural sugar should not be consumed and attention should be paid to daily salt intake. Healthy cooking techniques should be preferred. You should consume the amount of water you need during the day. Eating habits should be changed and meals should be eaten slowly. Pay attention to fat consumption, saturated fats should be taken as little as possible. Attention should be paid to food diversity and a balanced diet should be provided from each food group. Vegetables and fruits should be consumed in season. Alcohol intake should be avoided Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary.	You can talk to your doctor and dietitian. You can apply a specially created diet plan for you.

WOMAN HEALTH PANEL

INFERTILITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
FTO	A	AT	Moderate relative risk for BMI and obesity.
FADS1	G	TT	Decreased relative risk for D5/D6 fatty acid desaturase activity.
FADS1	C	CC	High relative risk for D5/D6 fatty acid desaturase activity.
MTHFR	C	AC	Moderate relative risk for MTHFR enzyme activity.
MTHFR	T	CC	Decreased relative risk for MTHFR enzyme activity.
PPAR-G	C	CC	High relative risk for type 2 diabetes.
MTHFD1	T	CT	Due to moderate enzyme activity, moderate relative risk for choline.
LCT	G	GG	High relative risk for lactose intolerance.
KCNJ11	T	CT	Moderate relative risk for insulin response and Type 2 diabetes.
CYP1A2	A	AC	Moderate relative affinity for faster enzymatic activity.
LEP	A	GG	Reduced relative risk for obesity and Type 2 diabetes.
PEMT	T	CT	Moderate relative risk for choline due to moderate PEMT activity.
FTO	A	AT	Moderate relative risk for BMI and obesity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your infertility risk is average.

ESTROGEN

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CYP1A1	C	TT	Reduced relative predisposition for estrogen-related problems for increased CYP1A1 enzyme activity.
CYP1B1	T	GG	Decreased relative risk for estrogen-related problems.
GSTP1	G	AA	Decreased relative risk for decreased enzyme function.
NQO1*2	T	CC	Decreased relative risk for quinone and benzene toxicity due to decreased enzyme activity.
MTHFR C677T	T	CC	Decreased relative risk for MTHFR enzyme activity.
CYP3A4	G	AG	Moderate relative risk for increased CYP3A4 and increased estrogen metabolism.
GSTM1	T	TT	High relative risk for decreased GSTM1 activity.
COMT	G	AG	Moderate relative affinity for COMT activity.
CYP17A1	G	AG	Moderate relative risk for problems with estrogen metabolism.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of estrogen-related problems is low. In consultation with your doctor, it is recommended that you take advice and supplements in accordance with your nutrition and detoxification panel.

GLUTEN SENSITIVITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
LPP	A	AC	Moderate relative risk for gluten sensitivity.
HLA-DQ2.5	A	GG	Reduced relative risk for gluten sensitivity.
HLA-DQ 2.2	T	TT	High relative risk for gluten sensitivity.
LOC105371664	T	GT	Moderate relative risk for gluten sensitivity.
HLA-DQ4	T	TT	High relative risk for gluten sensitivity.
Intergenic	T	TT	High relative risk for gluten sensitivity.
HLA-DQ8	C	TT	Reduced relative risk for gluten sensitivity.
HLA-DQ2.2	C	TT	Reduced relative risk for gluten sensitivity.
REL	A	AA	High relative risk for gluten sensitivity.
IL18RAP	A	GG	Reduced relative risk for gluten sensitivity.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, you have a moderate risk of gluten sensitivity. If you feel sensitive after gluten consumption in your diet, it is recommended to consume gluten-free foods. Buckwheat, basmati rice, quinoa, chickpea flour, corn, cornmeal, lentils, potatoes, vegetables and fruits, etc. such as gluten-free foods. It is recommended to determine the foods that cause sensitivity by keeping a food consumption record and to pay attention to the gluten content in packaged products. Your doctor can recommend appropriate supplements and recommendations based on your clinical situation. Gluten-containing foods; Wheat and wheat-containing products, rye, barley, processed meat and broth, soy sauce, salad dressings, nuts with sauce, semolina, meat and seafood imitations, prepared foods, etc.

WOMAN HEALTH PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
INFERTILITY	MTHFR, PEMT, MTHFD1, FTO, LEP, ADIPOQ, PPAR-G, TCF7L2, KCNJ11, CYP1A2, LCT, FADS1	B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also associated with cardiovascular diseases thought to be mediated through hyperhomocysteinemia. Your genetic susceptibility can be supported by a diet rich in B12 sources in your diet. Cobalamin can be obtained from the diet; This vitamin is found in animal products such as meat, eggs, and shellfish. You should consume your animal foods such as eggs in your diet by creating balanced and healthy meals, paying attention to the amount and frequency, and avoid excessive consumption against hyperhomocysteinemia. If you are overweight, specialist help should be sought and an appropriate treatment plan should be determined in order to lose weight and control the weight. Physical activity level should be increased, daily walking and exercises should be made a habit. An active lifestyle should be adopted, at least 30 minutes of moderate-intensity activity should be done regularly, at least 5 days a week. (fast walking, etc.). Appropriate body weight should be targeted. 25-30 percent of the energy needed daily should be provided from fats, and the energy rate from saturated fatty acids should be below 10 percent. Avoid high-calorie, ready-to-eat foods that have a long shelf life. Unnatural sugar should not be consumed and attention should be paid to daily salt intake. Healthy cooking techniques should be preferred. You should consume the amount of water you need during the day, and eating habits should be changed and meals should be eaten slowly. Pay attention to fat consumption, saturated fats should be taken as little as possible. Attention should be paid to the food variety and vegetables and fruits should be consumed in season in your meals to ensure a balanced diet from each food group. Adequate and balanced nutrition should be provided; At least five servings of vegetables and fruits should be consumed per day. Alcohol intake should be avoided.	For your balanced and regular diet, the whole panel and your general clinical condition will be evaluated by your doctor, and if necessary, advice and supplements will be given.
GLUTEN SENSITIVITY	HLA-DQ2.5, HLA-DQ8, HLA-DQ , LPP, İntergenic, LOC105371664	If you feel sensitive after gluten consumption in your diet, you can try gluten-free foods. Buckwheat, basmati rice, quinoa, chickpea flour, cornmeal, lentils, potatoes and vegetables and fruits are among the gluten-free foods. By keeping a food consumption record, you can detect any food that causes sensitivity. In addition to paying attention to the gluten label in packaged products, if you are sensitive, it may be good for your sensitivity. Your general clinical condition will be evaluated, and if necessary, appropriate supplements and recommendations will be made by your doctor.	You can include foods containing probiotics and prebiotics in your balanced and regular diet.

ESTROGEN	CYP1A1, CYP1B1, CYP3A4, COMT, GSTP1, GSTM1, NQO1*2, CYP17A1, MTHFR, C677T, SULT1A1	Cooking techniques are important for CYP1A1 variations. Coal fire, grilling, frying type techniques will have toxic effects due to polycyclic aromatic hydrocarbons (PAH) and heterocyclic amine formation. For this reason, you should prefer oven/steaming/boiling/pot dishes. For example: high-temperature cooking when consuming meat, black burns, charcoal cooking, consuming smoked meat, consuming processed delicatessen products (smoked turkey, salami, etc.) put you at a high risk of DNA damage. For this reason, you should consume these consumption patterns or foods limitedly and pay attention to the amount. You should reduce your consumption of red meat in your diet and take care to consume it together with a diet rich in seasonal vegetables. You can reduce the toxin in red meat with marinating techniques (lemon, vegetable addition). For detoxification, according to your general diet, the diet should be balanced with cruciferous vegetables containing isothiocyanates. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements. Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided.	For your balanced and regular diet, the whole panel and your general clinical condition will be evaluated by your doctor, and if necessary, advice and supplements will be given.

SPORT PANEL

EXERCISE MOTIVATION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
LEPR	T	GG	Decreased relative predisposition for motivation to exercise, and tolerance to exercise intensity.
ANKK1	C	CT	Moderate relative predisposition for sports motivation.

LOW RISK

SUGGESTIONS

According to your genetic test result, your motivation to exercise is relatively low. You can use methods such as yoga and meditation to increase motivation before exercise.

POWER RESPONSE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADRB2	G	AG	Moderate relative predisposition to power oriented performance.
MCT1	A	AT	Moderate relative affinity for speed and power performance.
AGTR2	A	CC	Decreased relative affinity for fast-twitch muscle fibers seen in power athletes.
AMPD1	C	CC	High relative aptitude for Sprint/Strength focused anaerobic performance and explosive muscular strength.
ACTN3	C	CC	Highly relative predisposition for power-oriented performances.
NOS3	T	CT	Moderate relative aptitude for power-oriented athletic performances.
AGT	C	CT	Moderate relative predisposition for increased plasma angiotensin level and power sport performance.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your predisposition to power sports is relatively average. Strength/power sports are sports that require short-term and explosive power. In this group; There are sports branches such as weightlifting, discus, shot put, hammer throw, 100 m swimming, table tennis.

ENDURANCE RESPONSE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADRB2	A	AG	Moderate relative affinity for Strength/Endurance performance.
AGTR2	C	CC	High relative affinity for slow twitch muscle fibers seen in endurance athletes.
HIF1A	T	CT	Moderate relative affinity for endurance performance increasing proportionally to oxygen capacity.
BDKRB2	T	TT	High relative affinity for high vasodilation and endurance performances.
HFE	G	CC	Decreased relative affinity for endurance-focused sports with increased oxygenation due to high iron indices.
ACTN3	T	CC	Low relative aptitude for endurance-oriented performances.
NOS3	C	CT	Moderate relative aptitude for endurance-oriented performances.
ADRB3	C	CT	Moderate relative affinity for elite athlete endurance performance.
GABPB1/ NRF2	G	AA	Decreased relative aptitude for elite endurance sports.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your predisposition to endurance sports is at an average level. Endurance sports are sports that require long periods of low-to-moderate intensity activity. Such as long-distance running, rowing, cycling, swimming. You can improve your susceptibility to endurance sports with sports such as meditation, yoga and breathing exercises.

RECOVERY EFFICIENCY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
AMPD1	T	CC	Decreased relative susceptibility to post-exercise cramping, pain, and fatigue.
ACTN3	T	CC	Decreased relative risk for increased sensitivity to strenuous exercise.
CCL2	C	CC	High relative predisposition for prolonged recovery time after exercise.

MEDIUM RISK

SUGGESTIONS

According to the genetic test result, your recovery efficiency is relatively average. The time you need to heal post-exercise muscle damage is average. You should leave enough rest time between two exercises.

INJURY PREDISPOSITION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
COL5A1	T	CC	Decreased relative risk for soft tissue injury.
GDF5	T	CT	Moderate relative susceptibility to soft tissue injuries, delayed healing, and osteoarthritis.
COL1A1	G	GT	Moderate relative risk for tendon and connective tissue injuries.
IL6	C	CG	Moderate relative risk for muscle injuries.
ACTN3	T	CC	Decreased relative risk for increased sensitivity to strenuous exercise.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of exercise-related injury is low. To minimize the risk of exercise-related injury, do not forget to stretch and stretch before exercise. If possible, work with a trainer.

MUSCLE MASS PREDISPOSITION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ACTN3	C	CC	High relative predisposition for muscle volume and strength.
TRHR	T	TT	High relative affinity for preserving muscle mass, and lean body mass.

HIGH RISK

SUGGESTIONS

According to your genetic test result, your predisposition to muscle mass is relatively high.

TENDONITIS

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
COL5A1	T	CC	Low relative susceptibility to Achilles tendinopathy.
GDF5	T	CT	Moderate relative risk for Achilles tendinopathy.
COL1A1	G	GT	Moderate relative risk for Achilles tendon rupture.
TNF	A	GG	Decreased relative risk for Achilles and knee tendon problems.
BMP4	T	GG	Decreased relative risk for tendinopathy.
MMP3	G	AA	Decreased relative risk for tendinopathy.
MMP3	A	GG	Reduced relative risk for tendinopathy.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of tendon injury is low. In order to minimize your risk of tendinopathy, stretching and stretching movements should not be neglected before the exercise, and if possible, the exercise should be continued with a trainer.

CAFFEINE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADORA2A	T	CC	Decreased relative predisposition for increased exercise performance after caffeine intake.
CYP1A2	A	AC	Moderate relative predisposition for caffeine-related exercise performance.

LOW RISK

SUGGESTIONS

According to your genetic test result, caffeine consumption can negatively affect your exercise performance. For this reason, it is recommended to stop consuming beverages such as coffee and tea containing caffeine at least 2 hours before exercise.

SPORT PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
EXERCISE MOTIVATION	ANKK1, LEPR	Physical activity level should be increased, daily walking and exercises should be made a habit. You should determine your appropriate exercise routine in all of your personal sensitivities and increase your physical activity. Warming up and cooling down before and after a brisk workout stretches you and gives you less exposure to the post-exercise effects. If you are overweight, specialist help should be sought and an appropriate treatment plan should be determined in order to lose weight and control the weight. Avoid high-calorie, ready-to-eat foods that have a long shelf life. Unnatural sugar should not be consumed and attention should be paid to daily salt intake. Healthy cooking techniques should be preferred. You should consume the amount of water you need during the day. Eating habits should be changed and meals should be eaten slowly. Attention should be paid to food diversity and a balanced diet should be provided from each food group. Vegetables and fruits should be consumed in season. Alcohol intake should be avoided.	For a balanced and regular life, the whole panel and your general clinical condition will be evaluated by a sports consultant or a sports coach, and if necessary, advice and reinforcement will be given.

POWER RESPONSE	AGT, IL6, MSTN, NOS3, ACTN3, AMPD1, MCT1, AGTR2, ADRB2	Strength is the ability of a muscle or muscle groups to strain and is measured entirely by the weight that the athlete can carry or lift. Strength, on the other hand, depends not only on the degree of strain of the muscle, but also on the rate of contraction. Factors affecting power performance include fast-twitch muscle fibers, muscle strength and anaerobic capacity. Strength/power sports are sports that require short-term and explosive power. In this group; There are sports branches such as weightlifting, discus, shot put and hammer throw, 100 m swimming, table tennis and tennis. Sports such as basketball, football and volleyball are sports branches that require both endurance and strength. You can use resistance training with weight lifting or pulling to increase your strength performance. Anaerobic exercise types are sports that are more brisk, performed in a shorter time and obtain their energy from the breakdown of glucose stored in the muscles. If you increase the intensity and speed of aerobic exercise, you are likely to switch to anaerobic energy use. If you cannot use your oxygen capacity efficiently according to your genetic results, activities that require focus and breath control such as yoga, pilates and meditation can increase your capacity to use oxygen. Exercising at the right intensity for your aerobic capacity will ensure you get the most out of your workout. One of the ways to determine the exercise intensity that is right for you is to calculate your maximum heart rate and determine the target heart rate per minute you can reach yourself. You find your maximum heart rate by subtracting your own age from 220. 50 to 70% of the number you find should be your heart beats per minute for moderate exercise intensity and 70 to 85% for vigorous exercise intensity.	For a balanced and regular life, the whole panel and your general clinical condition will be evaluated by a sports consultant or a sports coach, and if necessary, advice and reinforcement will be given.

ENDURANCE RESPONSE	ADRB2, ADRB3, BDKRB2, HFE, NOS3, GABPB1/NRF2, AGTR2, ACTN3, HIF1A	Endurance performance is associated with cellular metabolism and cardiovascular function. Factors such as slow-twitch muscle fibers, aerobic capacity, maximum cardiac output, and maximum oxygen consumption determine endurance capacity. Endurance sports are sports that require long periods of low-to-moderate intensity activity. Sports such as long-distance running, rowing, cycling, swimming and skiing are endurance sports. Sports such as basketball, football and volleyball are sports branches that require both endurance and strength. With low-intensity long-term exercises, you can increase your endurance capacity and develop your slow-twitch muscle fibers. For a balanced physical performance, you should add high-intensity, strength and conditioning exercises to your workouts to revive both your aerobic and anaerobic capacity. You can include moderate cardio exercises such as long-term running, cycling, swimming and other endurance training in your exercise program. Don't forget to add warm-up before exercise and cool-down afterward into your workout routine. Aerobic exercise types are sports that use large muscle groups, require more oxygen consumption, and make the body stronger by forcing the body's oxygen carrying capacity. These are sports performed at a relatively slow pace and for longer periods of time. If you cannot use your oxygen capacity efficiently according to your genetic results, activities that require focus and breath control such as yoga, pilates and meditation can increase your capacity to use oxygen. Exercising at the right intensity for your aerobic capacity will ensure you get the most out of your workout.	For a balanced and regular life, the whole panel and your general clinical condition will be evaluated by a sports consultant or a sports coach, and if necessary, advice and reinforcement will be given.

RECOVERY EFFICIENCY	AMPD1, ACTN3, IL6, CCL2	Recovery/Recovery time is considered the time between two exercises. You should plan your exercise routine in accordance with your genetic predisposition. In this way, you get maximum efficiency from your physical performance and reduce your risk of injury and injury. If you are a beginner to exercise, take care to provide a slow and gradual increase in your exercise tempo for 1-2 years, taking into account your risk of injury. You should allow 2-3 days of rest between intense training sessions. You can adjust these periods according to your genetic predisposition and experience. If you are a seasoned active athlete and you train every day, you should take the time to listen for 1 full day per week. Sleep is vital in the healing and recovery process. You should sleep at least 8 hours each night. Your diet is very important for a successful and fast recovery/recovery process as well as staying healthy. Take care to consume anti-inflammatory and anti-oxidant foods in your diet, as inflammation and oxidative stress will hinder the healing process. Eat a wide variety of vegetables and fruits, especially green leafy and fibrous vegetables. Include fish in your diet. Consuming high-quality mixed protein sources containing a wide variety of amino acids and carbohydrate foods with a low glycemic index after exercise will reduce inflammation in your body and help you recover. Avoid consuming any kind of tobacco products. Limit alcohol consumption.	For a balanced and regular life, the whole panel and your general clinical condition will be evaluated by a sports consultant or a sports coach, and if necessary, advice and reinforcement will be given. During the day, you should create your diet from healthy and balanced meals according to your genetic sensitivities and current clinical findings. You should be protected from packaged food and external toxins (chemicals, microplastics, cigarette smoke, cosmetic products), and you should prefer environmentally friendly products as much as possible. You should determine your appropriate exercise routine in all of your personal sensitivities and increase your physical activity. Between physical activities, you should determine rest periods that are appropriate for your genetic results. Vitamin deficiencies should be eliminated and attention should be paid especially to magnesium. It can be applied to initiate epigenetic changes with preventive, inflammation-reducing nutritional and lifestyle recommendations. It's important to remember that routine exercise and an anti-inflammatory diet are important in reducing inflammation.

INJURY PREDISPOSITION	ACTN3, COL1A1, COL5A1, GDF5	In order to reduce your risk of injury during exercise, to reduce your risk of muscle damage after exercise, and to accelerate post-exercise recovery, conditioning exercises should be performed as preventive exercise, according to expert recommendations. These; resistance and weight training, pilates, yoga, stretching, stretching and plyometric exercises. If you are actively involved in a certain sport, you can do special conditioning exercises that target the injury risks specific to that sport. If you train regularly, it's helpful to add two or more conditioning sessions per week to your training program, aimed at reducing your risk of injury. Nutrition plays a very important role in the prevention of sports injuries, the healing of existing injuries and the recovery of the body between workouts. You should pay attention to nutrition in a way that reduces chronic inflammation in the body. For this purpose, it is important to avoid simple sugars, processed foods, and foods rich in carbohydrates and fats. In addition, vitamin C, iron and protein intake, which are known to be necessary for collagen production, should be sufficient. Try to consume quality protein sources rich in amino acids, which are necessary for recovery after training. If you exercise regularly, you can add hydrolyzed collagen or bone broth to your diet.	For a balanced and regular life, the whole panel and your general clinical condition will be evaluated by a sports consultant or a sports coach, and if necessary, advice and reinforcement will be given.
MUSCLE MASS PREDISPOSITION	ACTN3, HIF1A1, TRHR, MSTN	You can increase your muscle mass and muscle strength by training at appropriate load and time intervals in the types of exercises that you are genetically predisposed to. Paying attention to your sleep pattern, consuming high quality and rich protein sources, and taking foods with low glycemic index will help you increase your muscle strength. Using food and vitamin supplements determined according to your nutrigenetic test results will be very useful in developing and maintaining your muscle mass.	For a balanced and regular life, the whole panel and your general clinical condition will be evaluated by a sports consultant or a sports coach, and if necessary, advice and reinforcement will be given.

TENDONITIS	GDF5, COL1A2, COL5A1, TNF, BMP4, MMP3	You can minimize your risk of tendon injury by planning the types of exercises suitable for your genetic predisposition at appropriate time intervals according to your genetic test results. Doing warm-up exercises such as stretching and stretching before exercise will reduce your risk of tendinopathy, especially for tendon areas that have a high risk of injury according to the type of exercise and sport you do. Eccentric exercises strengthen tendons and ligaments, reducing the risk of injury in these areas. Pay attention to anti-inflammatory and anti-oxidant nutrition, not to consume tobacco products, and to limit alcohol intake in a way that will reduce your risk of injury. Pay attention to your sleep pattern. Based on your nutrigenetic test results, your chances of staying healthy and avoiding tendon injuries will increase with proper nutrition and supplements.	For a balanced and regular life, the whole panel and your general clinical condition will be evaluated by a sports consultant or a sports coach, and if necessary, advice and reinforcement will be given.
CAFFEINE	CYP1A2, ADORA2A	Caffeine-containing foods should not be consumed excessively. While consuming foods such as chocolate, green tea, coffee, herbal teas, consumption should be ensured by considering the amount of caffeine. The effect of increased anxiety that develops with coffee consumption can be observed as a result of excessive coffee consumption. Drinks with high caffeine content should not be consumed excessively during the day. There is 150 mg of caffeine in a cup of filter coffee. Be mindful of the amount of caffeine. 1 Cup (60 ml) Espresso: 100 mg. 1 Cup (200ml) Cappuccino: 100 mg. 1 Cup (200ml) Instant Coffee: 100 mg. 1 Cup of Turkish Coffee: 57 mg. 1 Cup (200ml) Decaffeinated Coffee: Maximum 5 mg. Daily caffeine consumption should not exceed 300 mg.	For a balanced and regular life, the entire panel and your general clinical condition will be evaluated by a sports consultant and will provide advice and reinforcement if deemed necessary.

METHYLATION PANEL

CBS

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CBS 360	C	CT	Moderate relative risk for homocysteine.
CBS 699	G	GG	High relative risk for homocysteinemia.
CBS	T	CT	Moderate relative risk for homocysteinemia.
CBS	C	TT	Reduced relative risk for homocysteinemia.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your risk of homocysteinemia associated with CBS enzyme activity is average.It is recommended that you consume folic acid, vitamin B6, vitamin B12, betaine, vitamin B2 and magnesium to minimize your risk.You should avoid a methionine-rich diet (consumption of excess red meat and dairy products), smoking and alcohol.

CBS II

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CBS 360	T	CT	Moderate relative risk for higher enzyme activity.
CBS 699	A	GG	Decreased relative risk for higher enzyme activity.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of associated with increased CBS activity is low. Increased CBS enzyme activity leads to excess taurine, ammonia and sulfur groups which are converted into toxic sulfides in the body. This causes an increase in stress and inflammation. In this case, it is recommended to reduce foods containing large amounts of sulfur.

CHOLINE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFD1	T	CT	Moderate relative risk for choline requirement, possibly due to moderate enzyme activity.
PEMT	T	CT	Moderate relative risk for choline requirement, possibly due to moderate PEMT activity.

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, there is a modarate relative risk for choline needs.Choline is one of the nutrients involved in your body's methylation cycle.Attention should be paid to the consumption of choline-containing foods. Some animal foods, such as eggs, are among the best sources of choline.Betaine, a metabolite of choline, works throughout the methylation cycle, so food sources that contain betaine (beets, quinoa, and spinach) should also be present in your diet.

COMT

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
COMT	C	CT	Moderately relative predisposition for COMT activity.
COMT	G	AG	Moderate relative affinity for COMT activity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test result, your COMT enzyme activity is at an average level. Since COMT enzyme activity is dependent on the methylation cycle, a diet rich in minerals such as folate, vitamins such as B12 and B2 and minerals such as magnesium required in the methylation cycle is also recommended for COMT activity. For balanced COMT activity, it is important to control your weight, eat adequate and balanced nutrition, and stay away from toxins.

FOLATE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR A1298C	C	AC	Moderate relative risk for folate deficiency.
MTHFR C677T	T	CC	Reduced relative risk for folate deficiency.

LOW RISK

SUGGESTIONS

According to your genetic result, your folate (Vitamin B9) need shows a relatively low risk increase. Folate taken into the body through nutrition is converted to its active form, 5-MTHF, before entering the bloodstream. In addition to the digestive system, it also plays a role in the activation of folic acid in the liver and other tissues. The change in folate level, which is directly related to homocysteine, will affect your quality of life. You should adjust your Folate consumption to 0.4 mg during the day. As a source of Folate in your diet; You can also add a wide variety of foods such as vegetables, legumes, grains, eggs, and fruits. In addition, many foods are supplemented with synthetic folate or folic acid. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Folate (Vitamin B9).

VITAMIN B12

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR	T	CC	Decreased relative risk for vitamin B12 deficiency and hyperhomocysteinemia.
MTRR	G	GG	High relative risk for hyperhomocysteinemia associated with B12 and folate deficiency.
TCN1	G	AA	Decreased relative risk for low plasma B12 level.
FUT2	G	AG	Moderate relative risk for low levels of serum vitamin B12.
TCN2	G	AA	Decreased relative risk for low plasma B12 level.

LOW RISK

SUGGESTIONS

According to your genetic result suggests that your need for Vitamin B12 has a lower increased risk. B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also linked to cardiovascular diseases that are thought to be mediated through hyperhomocysteinemia.Weakness, fatigue and forgetfulness are common due to low B12. Your genetic sensitivity should be supported with a diet rich in B12 sources in your diet. Besides B12, supportive cobalamin can be obtained from the diet; this vitamin is found in animal products such as meat, eggs and shellfish.You should consume your consumption of animal foods such as eggs in your diet, creating balanced and healthy meals, paying attention to the amount and frequency, and avoiding excessive consumption against hyperhomocysteinemia. If you have difficulty consuming these foods in your diet, consult your physician for B12 supplements in forms appropriate to your genetic sensitivities.

VITAMIN B6

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ALPL	C	CT	Moderate relative risk for vitamin B6 levels.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for vitamin B6 shows a moderate risk. In order to determine your vitamin B6 needs, you should definitely evaluate the results of the B6 cofactor CBS360 and CBS699 genes. If your clinical findings suggest that it need B6, it is recommended for your health to consume at least 1.3 mg of essential Vitamin B6 in your daily diet. You can enrich your diet with foods such as red and white meat, fish and seafood, eggs, carrots, spinach, cauliflower, bananas and avocados, nuts, which are sources of Vitamin B6. If you are having difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin B6.

METHYLATION PANEL

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
CBS	CBS	For a healthy life, attention should be paid to the homocysteine level. Factors such as diet and lifestyle, some chronic diseases, heavy metal accumulation, and some vitamin and mineral deficiencies affect homocysteine levels. If homocysteine levels are high in the blood, since some of the contributing factors are related to lifestyle and nutrition, it is possible to intervene to reduce homocysteine levels with certain modifications and nutritional supplements, concentrating on correcting them first. To help lower your homocysteine levels; If you consume a lot of methionine-rich foods such as red meat and dairy products, you should reduce them. For a healthy life, you must acquire the habit of exercise. It has been shown that homocysteine levels decrease even with increased physical activity alone, when specific exercise goals are given to patients who are included in an exercise rehabilitation program for heart disease. As a result of reducing your homocysteine to the optimal level, the methylation process and methionine pathway will work properly, thereby reducing the stress on the endothelial layer lining the vascular system, including the heart and brain vessels, and the occurrence of degenerative changes will be prevented. Numerous studies also show that it is beneficial in lowering homocysteine levels and preventing Alzheimer's disease. In addition, normal homocysteine levels are an indication that there is enough active B12 and folate in the body. Although it is not a measurement considered the gold standard of vitamin stores, it indicates that there is enough vitamin for the proper functioning of the pathways dependent on these vitamins.	Factors that increase the risk of homocysteine elevation should be avoided. These ; Active folate, vitamin B6, vitamin B12, betaine, vitamin B2 and magnesium deficiency, diet rich in methionine (consumption of excessive red meat and dairy products), smoking and alcohol use, coffee consumption, genetic mutations, heavy metal accumulation in the body (especially mercury), obesity, thyroid diseases, kidney diseases, psoriasis and some drugs. Consult your doctor for necessary precautions.

CBS II	CBS	Your consumption of sulfur-containing foods should be controlled, taking into account your panel body associated with the CBS gene, your clinical condition, as well as other risk factors. This is because excessive consumption of sulfur-containing foods leads to excess taurine, ammonia and sulfur groups that turn into toxic sulfites in the body. This causes an increase in stress and inflammation. Foods containing sulfur: Meat and meat products: Especially red meat, beef, sausage, ham, chicken, duck, turkey, organ meats such as kidney, heart and liver, bone broth, Fish and seafood: Most fish tours, especially big fish, shrimp, mussels Nuts and seeds: especially almonds, Brazil nuts, peanuts, walnuts, pumpkin and sesame seeds, soybeans Legumes: Chickpeas, mung beans, lentils, soybeans, kidney beans, peas and dried beans Grains: Barley, Oatmeal Eggs and dairy products: Eggs, cheddar cheese, roquefort cheese, cheddar, parmesan and cow's milk, whey powder Fruit & dried fruit: Apricots, Dried apricots, dried apples, peaches, dried peaches, raisins, prunes, dried dates, dried figs, dried coconut, avocado, chokeberry, raspberry, olive Some vegetables (depending on soil and fertilizer used): Spinach, onions, garlic, leeks, chives, cabbage, brussels sprouts, bok choy, turnips, mushrooms (fried), potatoes (baked/fried), leeks, peas, radishes, horseradish, beetroot, cress, broccoli, arugula, asparagus, mustard greens, seaweed. Specific beverages: Especially coconut milk, soy milk, beer, red/white wine, apple juice, grape and tomato juice, sometimes well water (varies, but city water is fine) Other Foods: Mustard, Bread, and wholemeal pasta moderate Intake of Sulfur/Sulphate Needs to be Reduced Supplements, additives: Alpha lipoic acid, Glucosamine sulfate, Glutathione, Chondroitonesulfate, Methylsulfone	Your doctor will make the necessary recommendations.
CHOLINE	PEMT, MTHFD1	Your general clinical condition will be evaluated, and if necessary, appropriate supplements and recommendations will be made by your doctor. Choline is one of the nutrients involved in your body's methylation cycle. Consumption of foods containing choline can be increased. Some animal foods, such as eggs, are among good sources of choline. Betaine, a metabolite of choline, works through the methylation cycle, so dietary sources of betaine (beet, quinoa, and spinach) should also be present in your diet.	Folic acid, Magnesium, Choline, consult your doctor and use supplements if your doctor deems it necessary
COMT	COMT	Since our COMT activity depends on the methylation cycle, the vitamins and minerals required in the methylation cycle are also required here. Your diet can be enriched with dietary sources of folate B9, cobalamin B12, riboflavin B2 and magnesium. PREFERABLY AdenosylB12 (adenosylcobalamin) HydroxyB12 (hydroxocobalamin) MethylB12 (methylcobalamin) A combination of adenosyl, hydroxy and methylB12 is suitable. Your general panel will be evaluated by your doctor according to your whole and clinical situation, and supplementation will be started if necessary. FOR BOTH COMT (FAST-SLOW) Optimizing weight A clean, adequate and balanced diet (compliance with a nutrigenetic diet) It is important to avoid BPA and other plastic products. (because they contain xenoestrogen, which mimics estrogen, which affects the COMT enzyme, which tries to optimize estrogen. Just like the COMT gene, the MAO gene is also affected by the methylation cycle, so folate, magnesium B12, B6, B2 sources can be started with diet or as supplements if your doctor deems it necessary.	Your general panel will be evaluated by your doctor and supplementation will be started if necessary. You can consult your doctor for natural antioxidant components. If your doctor deems it necessary, you can start using supplements.

FOLATE	MTHFR	Your folate-related panel and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. There are many genetic and environmental factors that contribute to increased homocysteine levels; diet, stress, lifestyle, some chronic diseases, heavy metal accumulation, some vitamin and mineral deficiencies may increase the risk of homocysteine. Attention should be paid to active folate, vitamin B6, vitamin B12, betaine, vitamin B2 and magnesium deficiency. Adequate amount of need must be provided. Methionine-rich diet (excessive consumption of red meat and dairy products) is not recommended. Folic acid is a synthetically produced folate derivative. The names are often used interchangeably, but there are distinct differences between the two. folate; It is found in a wide variety of foods such as vegetables, legumes, grains, eggs, and fruits. In addition, many foods are supplemented with synthetic folate or folic acid. Folate ingested in the body is converted to its active form, 5-MTHF, before entering the bloodstream. In addition to the digestive system, liver and other tissues take part in the activation of folic acid.	Dark green leafy vegetables should be mainly fed in the diet. According to the results of your B12, B2 and magnesium, choline panels, supplementation can be started by your doctor if necessary.
VITAMIN B12	MTRR, TCKN1, TCKN2, MTHR	B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also associated with cardiovascular diseases thought to be mediated through hyperhomocysteinemia. Your genetic susceptibility can be supported by a diet rich in B12 sources in your diet. Cobalamin can be obtained from the diet; This vitamin is found in animal products such as meat, eggs, and shellfish. You should consume your animal foods such as eggs in your diet by creating balanced and healthy meals, paying attention to the amount and frequency, and avoid excessive consumption against hyperhomocysteinemia. According to your COMT gene, microbiota analysis and other panels, appropriate B12 supplementation will be recommended by your doctor if necessary. It may be recommended to periodically take B12 supplements in appropriate forms for all of your genetic sensitivities. All supplements should be followed under the supervision of a doctor.	Hydroxyl B12, Adenosyl B12, Methylcobalamin B12, B12 values should be checked regularly, supplementation is started by your doctor if necessary.
VITAMIN B6	ALPL	Consuming foods containing B6 in your daily diet will be healthy for your B6 levels. Your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. Sources of Vitamin B6: Red and white meat, fish and seafood, eggs, carrots, spinach, cauliflower, bananas and avocados, nuts. If you have difficulty consuming these foods in your diet, vitamin B6 supplementation can be started under the control of a doctor.	Use of active folate (folic acid), vitamin B6, B12, Magnesium. You can consult your doctor. Use supplements if your doctor deems it necessary.

SLEEP

STRESS RESISTANCE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CELF4	G	AG	Moderate relative predisposition to neuroticism
COMT	G	AG	Moderate relative predisposition to sensitivity of sleepless
BAIAP2	G	AA	Decreased relative predisposition to neuroticism
AC107218.3/VWC2L	T	GT	Moderate relative predisposition to neuroticism

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, your sensitivity to stress is average. In order to reduce your stress sensitivity and increase your sleep quality, methods such as exercising, taking care of hobbies, establishing supportive relationships, and doing stress-reducing activities that can help reduce stress and relax in daily life can be tried. Strategies such as regular sleep habits and improving the sleep environment can help reduce sleep problems associated with neuroticism.

GENETIC CHRONOTYPE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
AK5	A	GG	Low relative predisposition to morningness
ERC2	T	GT	Moderate relative predisposition to morningness
DLX5	A	AA	High relative predisposition to morningness
CALB1	G	AA	Low relative predisposition to morningness

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, you have an intermediate genetic chronotype. It is recommended that you plan your daily routines in accordance with your genetic chronotype and determine your sleep pattern accordingly.

SLEEP QUALITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MEIS1	T	GG	Low relative risk for sleep quality and insomnia associated with restless leg.
ADA	G	AG	Moderate relative risk for sleep quality associated with decreased melatonin

LOW RISK

SUGGESTIONS

According to the results of your genetic test, the risk for your sleep quality is below average. To improve your sleep quality, establish a regular sleep routine, improve sleep environment, try relaxation techniques before going to sleep, avoid caffeine and alcohol, do regular physical activity, pay attention to your diet.

CAFFEIN AND SLEEP

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ADORA2A	C	CC	High relative risk for sleep deprivation associated with caffeine.

HIGH RISK

SUGGESTIONS

According to the results of your genetic test, your caffeine sensitivity is above average. It is recommended to consume caffeinated beverages lightly in the morning or at noon, and not to consume caffeinated products close to bedtime.

SLEEP

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
STRESS RESISTANCE	AC107218.3/VWC2L, BAIAP2, CELF4, COMT	Neuroticism refers to an individual's tendency to emotional instability, anxiety, worry, anger, depression, and similar negative emotional states. Neurotic personality traits can have an impact on the individual's methods of coping with stress, thought processes, and emotional reactions. People with the neuroticism factor generally tend to be more emotional, anxious, and stressed. Individuals with neurotic personality traits may experience more stress in their daily lives. This can be associated with traits such as worrying quickly in various situations, low self-esteem, insecurity, jealousy, and perfectionism. Neuroticism results from complex interactions between personality traits and environmental factors and is shaped by a combination of genetic and environmental factors. There is a strong relationship between neuroticism and sleep. Neuroticism is considered a manifestation of negative emotional states often associated with sleep problems. Individuals with neurotic personality traits tend to encounter more sleep problems. Neurotic individuals often experience emotional problems such as stress, anxiety, anxiety, and depression. These emotional states can affect sleep quality. Stressful thoughts, constant worry and intense emotional reactions can cause problems such as difficulty falling asleep, frequent awakenings, or inability to get quality sleep. Likewise, sleep problems can increase the symptoms of neuroticism. Insufficient sleep or poor quality sleep can negatively affect a person's overall mood and increase stress levels. Lack of sleep can make neurotic personality traits more pronounced by increasing mental and emotional sensitivity. Therefore, it is important for individuals with neurotic personality traits to take care of their sleep patterns.	It is important for individuals with neurotic personality traits to develop their ability to cope with stress. Stress management techniques can help reduce stress and relax in everyday life. Methods such as exercising, taking care of hobbies, establishing supportive relationships, and doing stress-reducing activities can be tried. Strategies such as regular sleep habits, relaxation techniques, stress management, and improving the sleep environment can help reduce sleep problems associated with neuroticism. Also, if sleep problems persist, it may be helpful to consult a specialist and explore appropriate treatment modalities, such as sleep therapy.

GENETIC CHRONOTYPE	AK5, APH1A(CA14), CALB1, DLX5, ERC2	Chronotype determines at what times an individual is more energetic and alert, or at what times is more tired and sleepy. The genetic chronotype is based on genetic factors that naturally determine the individual's internal clock and sleep-wake cycle. Chronotypes are generally divided into two main categories: "morning type" (preference to wake up early and sleep early) and "night type" (preference to wake up late and sleep late). However, some individuals may also fall into a category called the "intermediate type", that is, they cannot be classified as either the all-morning type or the all-night type. People with the morning chronotype should plan their days in accordance with this natural rhythm, as they are energetic and awake earlier in the morning. This can provide more opportunities for getting things done, exercise, or personal time earlier in the day. The metabolism of people with morning chronotype works faster in the morning hours. Therefore, eating a healthy and nutritious breakfast helps them maintain their energy levels throughout the day. It is important for people with morning chronotype to be exposed to sunlight in the morning hours. Sunlight helps regulate biological clocks and strengthens wakefulness. A light exercise or walk in the morning can provide better focus for the rest of the day. Exercise raises energy levels throughout the day, reduces stress and improves sleep quality. People with morning chronotype can improve their sleep quality by practicing relaxation routines before going to sleep in the evening. Relaxing activities such as creating a quiet environment, taking a hot shower, reading a book, or meditation can be done. Individuals with nocturnal chronotype should plan their days in accordance with this natural rhythm, as they are energetic and awake later in the day. It is important for individuals with nocturnal chronotype to maintain their sleep patterns. Planning their days by waking up later instead of waking up early in the morning, and arranging their work and social activities accordingly can help them lead a more harmonious life with their biological clocks. It is important for individuals with nocturnal chronotype to avoid stimulating and awakening activities close to their sleep time. These include vigorous physical activity, such as watching television and using a phone or computer. Instead, engaging in relaxation techniques, calming activities such as meditation or reading can help to relax before sleep. Individuals with nocturnal chronotype should create a sleep environment that will support their sleep. A quiet, dark and cool room, a comfortable bed and pillow can help improve sleep quality. Stimulants such as caffeine, energy drinks, and nicotine can affect the sleep of individuals with nocturnal chronotype. Therefore, it may be helpful to limit or avoid the consumption of caffeine and stimulants in the evening hours.	People with morning chronotype should get up early in the morning and do a light exercise or walk, not forget to have a healthy and nutritious breakfast, benefit from sunlight in the morning, and practice relaxation routines before going to sleep in the evening. Individuals with nocturnal chronotype should get up a little later in the morning and plan their daily schedules, and avoid stimulating and awakening activities close to sleep time.

SLEEP QUALITY	ADA, MEIS1	Sleep quality refers to how much effective and restful sleep a person gets during the sleep period. Good sleep quality means that a person can fall asleep quickly during sleep, experience uninterrupted sleep throughout the night, and feel fresh and rested upon waking. Sleep quality is related to the healthy realization of deep sleep and REM (Rapid Eye Movement) sleep stages. These stages are important for resting the body, vitality, rejuvenating the mind, consolidating memory, focusing ability, physical recovery, and overall quality of life. Factors affecting sleep quality include many factors such as sleep duration, depth of sleep, time to fall asleep, frequency of awakening during sleep, ability to return to sleep, and breathing pattern during sleep. In order to improve sleep quality, it is important to pay attention to sleep hygiene, manage stress, avoid stimuli, do regular physical activity and pay attention to sleep patterns. The factors affecting sleep quality may differ from person to person, so it is important to make sleep arrangements according to individual needs and to get support from a sleep specialist when necessary.	To improve sleep quality: Establish a regular sleep routine; Going to bed and getting up at the same time each night helps regulate your body's biological clock. Improve sleep environment; Create a quiet, dark and cool sleeping environment. Practice relaxation techniques; Try relaxation techniques before falling asleep. These may include activities such as meditation, deep breathing, muscle relaxation exercises, or a warm bath. Avoid caffeine and alcohol; Consuming caffeine-containing beverages (coffee, tea, energy drinks) and alcoholic beverages before sleep may adversely affect sleep quality. Therefore, it is important that you stop consuming such stimulants a few hours before your bedtime. Do regular physical activity; Exercising regularly can improve sleep quality. However, it is important to avoid putting intense exercises close to bedtime. You can help your body prepare for rest by placing your activity early in the day or a few hours before sleep time. Limit technology use; Limit the use of electronic devices such as phones, computers, and televisions before bed. The blue light of these devices can affect your sleep and stimulate your mind. Calm your mind by quitting technology before sleep. Pay attention to nutrition; Avoid heavy and fatty foods before sleep. If you want to have a light snack, choose healthy options that will not disrupt your sleep pattern. Manage stress; Stress can negatively affect sleep quality. Practice stress management techniques to deal with stress, for example, use activities such as meditation, yoga, deep breathing, or writing down your daily stress.

CAFFEIN AND SLEEP	ADORA2A	Caffeine is a stimulant substance that increases alertness and energy levels by stimulating the central nervous system. Each individual may react to caffeine in different ways. Some people may be more sensitive to caffeine, while others may be more tolerant. Also, the effects of caffeine can vary depending on a person's metabolism, amount of caffeine, and timing of consumption. Caffeine, when consumed before going to sleep, can delay the process of falling asleep by inhibiting the action of a chemical called adenosine. Caffeine blocks adenosine signals by binding to the brain's adenosine receptors. Adenosine is a chemical that regulates sleep and creates a feeling of sleepiness as the accumulated adenosine levels rise. Caffeine makes you feel alert and energized as it inhibits this feeling. Caffeine can shorten the deep sleep stage and REM (Rapid Eye Movement) sleep time during sleep. This, in turn, can lead to reduced sleep quality and a lighter sleep experience. Caffeine intake can affect the normal flow of the sleep cycle. Caffeine has a diuretic effect, which can increase the frequency of nighttime urination. Also, caffeine can disrupt sleep, causing more frequent wakefulness during the night.	To improve sleep quality, it is important to limit caffeine consumption or not to consume it close to bedtime. Consuming caffeinated beverages after waking up or after lunch can help you maintain your sleep patterns. In any case, it's important to consider your caffeine sensitivity and sleep needs, and take a balanced approach to sleep health.

CARDIOVASCULAR DISEASES

HYPERLIPIDEMIA

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
APOC2	C	AA	Decreased relative risk for high triglyceride.
LIPC	C	CC	Decreased relative predisposition to higher HDL levels.
GPD1	A	GG	Decreased relative risk for high triglyceride.
APOA5	A	CC	Decreased relative risk for hypertriglyceridemia among asians.
LPL	G	AA	Decreased relative risk for high triglyceride.
APOA5	C	GG	Decreased relative risk for hypertriglyceridemia.
LPL	T	GT	Moderate relative predisposition to low triglyceride
LPL	C	CC	Increased relative risk for high triglyceride and low HDL.
CETP	G	GT	Moderate relative predisposition to higher HDL levels.
APOC2	C	AA	Decreased relative risk for high triglyceride.
CETP	A	AG	Mild relative risk for heart attack, high triglyceride, and low HDL.
APOA5	C	TT	Decreased relative risk for hypertriglyceridemia.
APOA5	G	AA	Low relative risk for hypertriglyceridemia and myocardial infarction.
CETP	C	TT	Low relative risk for heart attack, high triglyceride, and low HDL.
GCKR	A	AG	Moderate relative risk for high triglyceride.

LOW RISK

SUGGESTIONS

According to your genetic test results you have low risk for hyperlipidemia.

HYPERTENSION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
NOS3	C	CT	Moderate relative risk for hypertension, and coronary artery disease.
AGTR1	C	AA	Decreased relative risk for hypertension.
GNB3	T	CC	Decreased relative risk for hypertension.

LOW RISK

SUGGESTIONS

According to your genetic test results you have low risk for hypertension. To minimize your risk for hypertension and related health prpoblems, manage your diet according to the nutrigenetic test results, perform regular exercise, and quit smoking.

THROMBOSIS

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
F2	A	GG	Decreased relative risk for thrombosis.
FGB	G	AG	Moderate relative risk for CAD.
FGB	A	AG	Moderate relative risk for higher fibrinogen and cardiac embolism.
MTHFR	C	AC	Moderate relative risk for homocysteinemia and thrombosis.
MTHFR	T	CC	Decreased relative risk for homocysteinemia and thrombosis.
FGB	T	CC	Decreased relative risk for higher fibrinogen and DVT.
ITGB3	C	TT	Decreased relative risk for heart attack.
F5	A	GG	Decreased relative risk for thrombosis.

LOW RISK

SUGGESTIONS

According to your genetic test results you have low risk for thrombosis. To minimize your risk for thromobosis and related health prpoblems, manage your diet according to the nutrigenetic test results, perform regular exercise, and quit smoking.

CARDIOVASCULAR DISEASES

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
HYPERLIPIDEMIA	APOA5, LPL, GCKR, APOC2, GPD1, CETP	A condition in which the level of fat in the blood is higher than normal is called hyperlipidemia. Blood lipids are made up of cholesterol and triglycerides. Cholesterol is one of the structural components of body cells. It plays a role in very important cellular functions by participating in the structure of hormones. While LDL is known as bad cholesterol, it increases the risk of cardiovascular diseases by causing plaque formation on the vessel walls. HDL is known as good cholesterol, it has a protective effect for cardiovascular health by removing bad cholesterol from the circulation. Triglycerides are used as energy stores. High triglyceride levels (hypertriglyceridemia) increase the risk of cardiovascular disease. Adopting a balanced and healthy eating habit is an important step in reducing the risk of hyperlipidemia. It is important to limit the intake of saturated fats and trans fats, not to consume processed and fast food foods containing trans fats, and to prefer healthy fats such as avocado, olive oil and fish, which are rich in unsaturated fats. It may also be beneficial to adopt a diet that includes nutrients such as fiber foods, fruit, vegetables, whole grains, and low-fat dairy products. Exercising regularly helps in reducing the risk of hyperlipidemia. Aim for at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity exercise per week. Exercise helps lower cholesterol levels, lowers triglycerides, controls weight, and improves overall cardiovascular health. Obesity and being overweight increase the risk of hyperlipidemia. Maintaining a healthy body weight or losing weight helps lower lipid levels. This can be achieved with a balanced diet and regular exercise. Smoking increases the risk of hyperlipidemia and cardiovascular diseases. It is important to quit smoking or not start smoking. Excessive alcohol consumption can increase triglyceride levels. If there is alcohol consumption, it should be kept in moderation and within the limits determined by the doctor.	Consult your dietitian and doctor for the most suitable diet, supplement and exercise recommendations for you.

HYPERTENSION	GNB3, NOS, AGTR1	Blood pressure is the pressure exerted on the arteries by the blood pumped by the heart. Hypertension is a condition in which blood pressure is consistently higher than normal. Long-term exposure to hypertension, which often causes no symptoms, increases the risk of cardiovascular diseases. High blood pressure can cause the heart to overwork and thicken the heart muscle. This increases the risk of heart diseases such as heart failure, heart attack, heart rhythm disorders and angina. High blood pressure causes damage to blood vessels in the brain, increasing the risk of stroke. It can also damage the vascular structures of organs such as kidneys and eyes and impair the functioning of these organs. The risk of hypertension increases with age. People with a family history of hypertension are more likely to develop hypertension. Being overweight increases the risk of hypertension. People who are overweight or obese place more stress on the cardiovascular system. Lack of regular exercise and low physical activity increase the risk of hypertension. An active lifestyle helps lower blood pressure. High salt consumption. Excessive salt intake can increase blood pressure by causing fluid retention in the body. Low levels of potassium, magnesium, and calcium in the body can increase the risk of hypertension. A balanced intake of these minerals is important. Excessive alcohol consumption and smoking increase the risk of hypertension. It is important to limit alcohol consumption or quit smoking. Chronic stress can increase the risk of hypertension. It is important to use stress management and relaxation techniques.	Making lifestyle changes, taking into account your specific risk factors, is important in reducing the risk of hypertension. A healthy diet, regular exercise, stress management and regular health checks are important in preventing and controlling hypertension. For this reason, it is recommended that you go to regular dietitian and doctor checks.
THROMBOSIS	F2, FGB, ITGB3, F5	Thrombosis is a condition characterized by the formation of blood clots in blood vessels. Normally, the blood coagulation system is an important protective mechanism for stopping bleeding as a result of injuries. However, in some cases, blood clotting may occur more than normal or at the wrong time, increasing the risk of thrombosis. Venous thrombosis is characterized by the formation of clots in blood vessels called veins. The most common type of venous thrombosis is deep vein thrombosis (DVT). Deep vein thrombosis is a clot that usually forms in the deep veins of the legs. The clot can grow in the vein, blocking blood flow. The clot can cause a pulmonary embolism by blocking a vessel that goes to the lungs, a stroke by blocking the vessels that feed the brain, and a heart attack by blocking the vessels that feed the heart. Arterial thrombosis is characterized by the formation of clots in blood vessels called arteries. Arterial thrombosis is usually caused by the adhesion and growth of a clot to narrowed or damaged artery walls. This prevents blood flow, preventing adequate oxygen and nutrients from reaching organs and tissues. Arterial thrombosis can lead to serious consequences such as heart attack or stroke. There are many reasons that increase the risk of thrombosis. These include prolonged inactivity (for example, prolonged air travel or bed rest), surgery, trauma, cancer, hormone treatments, pregnancy, genetic factors, obesity, and certain chronic health conditions. In addition, risk factors such as age, smoking, high blood pressure and high cholesterol can increase the risk of thrombosis.	Prolonged inactivity should be avoided. It is important to move regularly, especially on long flights, bus or train journeys. An active lifestyle should be adopted. It is important to do exercises that increase blood circulation, such as aerobic exercises, walking, jogging, swimming or cycling. Drinking enough water helps prevent blood clots. Take care to consume the recommended amount of water daily. Following a low-fat and high-fiber diet reduces the risk of thrombosis as well as maintaining overall health. Consuming antioxidant-rich fruits and vegetables supports healthy blood circulation. Being overweight or obese increases the risk of thrombosis. Staying within a healthy weight range improves circulation and overall health.

LONGEVITY

APOE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
APOE APOE	Apo-ε4	TT CC	Apo-ε3/ε3

LOW RISK

SUGGESTIONS

According to your genetic test results, your risk for Alzheimer's Disease and cardiovascular disease is low.

LIFESPAN

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
IL6	C	CG	Moderate relative predisposition to longer lifespan.
APOC3	A	AC	No association with longevity.
CETP	A	AG	Moderate relative risk for lifespan, dementia and Alzheimer's Disease.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your life expectancy is average.

LONGEVITY

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
LIFESPAN	APOE, APOC3, CETP, CFH, IL6, TP53	While genetics alone do not determine how long a person will live, they play a significant role in predisposing individuals to certain health conditions or influencing the rate of aging. Family history and inherited genetic traits can impact lifespan. The environment in which a person lives can have a substantial impact on longevity. Access to clean air and water, exposure to pollutants, and the overall safety of one's surroundings can affect health and lifespan. Chronic stress can negatively impact health and potentially shorten lifespan. Effective stress management techniques, such as meditation, mindfulness, or relaxation exercises, can have a positive effect on overall well-being. Strong social relationships and a robust support system are associated with better mental and physical health. Social isolation can have a detrimental effect on well-being and potentially reduce longevity. Higher levels of education are often associated with healthier lifestyle choices and access to better healthcare, both of which can contribute to a longer life. Good mental health and cognitive function can positively impact longevity. Staying mentally active through activities like puzzles or learning new skills may contribute to a longer life.	Healthy lifestyle choices, such as maintaining a balanced diet, regular physical activity, avoiding tobacco, and limiting alcohol consumption, can contribute to a longer and healthier life. A nutritious diet that includes a variety of fruits, vegetables, whole grains, lean proteins, and healthy fats can support overall health and may extend lifespan. Nutrient-rich foods provide the body with essential vitamins and minerals. Regular exercise can improve cardiovascular health, maintain muscle strength, and help prevent chronic diseases like diabetes and obesity, all of which are linked to longevity.
APOE	APOE	For individuals carrying the APOE4 allele, it is important to avoid saturated fats and trans fats and choose more monounsaturated and polyunsaturated fats (e.g. olive oil, avocado, nuts) to protect their health and minimize risks such as Alzheimer's disease. Omega-3 fatty acids are especially beneficial for brain health. Antioxidant-rich foods such as vegetables, fruits, and whole grains can help reduce oxidative stress. Avoiding sugar and refined carbohydrates can support overall brain health by reducing the risk of insulin resistance and diabetes. Aerobic exercises (walking, running, cycling) can benefit brain health and reduce the risk of Alzheimer's disease. At least 150 minutes of moderate-intensity exercise per week is recommended. Exercises aimed at increasing muscle strength are important for overall health. Regularly engaging in mentally stimulating activities (solving puzzles, reading books, taking up a new hobby) can protect brain health. Staying socially active can have a positive effect on mental health. Adequate and quality sleep is critical for brain health. During sleep, the brain is detoxified and memory is enhanced. Chronic stress is associated with structural changes in the brain. Meditation, yoga, deep breathing exercises, and other stress management techniques can be helpful. It is important to have cholesterol, blood pressure, and blood sugar levels checked regularly and treated with a doctor's advice if necessary. Smoking is detrimental to brain and cardiovascular health, and these effects may be more pronounced in individuals with the APOE4 allele. It is important to avoid excessive alcohol consumption. Although some studies suggest that light to moderate alcohol consumption (especially polyphenol-containing beverages such as red wine) may be beneficial to brain health, caution is needed.	For individuals who carry the APOE4 allele, these recommendations can help them manage their genetic risk. However, it is always best to talk to a healthcare professional about their personal health plan.

SKIN HEALTH AND BEAUTY

SKIN AGING

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MMP1	I	II	Increased relative risk for collagen destruction due to the MMP1 hyperactivity.
COL1A1	T	GT	Moderate relative risk for collagen destruction due to slightly impaired collagen synthesis.
MMP3	I	DD	Reduced relative risk for tissue healing due to normal MMP3 activity.
ELN	T	TT	Increased relative risk for elastin level and function.

MEDIUM RISK

SUGGESTIONS

According to the genetic test results, you have moderate risk of premature aging of skin. To minimize this risk, protect your skin from the harmful effects of sunlight, air pollution and environmental chemicals. Avoid alcohol and cigarettes. Be careful to sleep regularly in accordance with your genetic chronotype and reduce stress factors in your life. Eat a healthy and balanced diet according to your nutrigenetic test results, and use the vitamins and nutritional supplements you need according to the test results by consulting your doctor and dietitian.

PHOTOSENSITIVITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
IRF4	T	CC	Normal melanocyte growth and proliferation. Reduced relative risk for sun sensitivity.
TYR	A	GG	Increased tyrosinase activity. Reduced relative risk for sun sensitivity.
MC1R	T	CC	Reduced relative risk for fair skin, red hair, freckles and sun damage.
XRRC1	A	GG	Reduced relative risk for sun sensitivity.
XRRC1	T	CC	Reduced relative risk for sun sensitivity.
PIGU	A	GG	Reduced relative risk for sun sensitivity.

LOW RISK

SUGGESTIONS

According to your genetic test results, you have low sensitivity to the sun and reduced risk for damaging effects of the sun. Harmful rays in the sun can cause premature aging of the skin, pigmentation disorders in the skin, sunburn, and long-term exposure can cause DNA damage in skin cells. In order to be protected from the harmful effects of the sun, it is recommended that you avoid going outdoors during hours when exposure to UV rays is high, use sunscreen cream, and wear clothes that will reduce your exposure to the sun.

CHRONIC INFLAMMATION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
IL1B	G	GG	High relative risk for chronic inflammation due to increased IL1B level.
TNF	A	GG	Low relative risk for chronic inflammation due to normal TNF level.
Il6	C	CG	Moderate relative risk for chronic inflammation due to slightly increased IL6 level.
IL6	A	AG	Moderate relative risk for chronic inflammation due to slightly increased IL6 level.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, you have moderate tendency to chronic inflammation.

FEMALE PATTERN HAIR LOSS

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
AR/EDA2R	T	TT	Increased relative risk for hair loss.
CYP19A1	C	AC	Moderate relative risk for hair loss associated with high estrogen levels.
AR/EDA2R	A	GG	Decreased relative risk for early onset hair loss.
AR/EDA2R	C	TT	Decreased relative risk for early onset hair loss.

MEDIUM RISK

SUGGESTIONS

According to the genetic test results, you have a relatively moderate risk for hair loss.

VITAMIN E

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
APOA5	C	CC	Increased relative risk for plasma alpha tocopherol levels.
CYP4F2	C	CC	Increased relative risk for plasma alpha tocopherol levels.
ZPR1	C	CC	Increased relative risk for plasma alpha tocopherol levels.

HIGH RISK

SUGGESTIONS

Your genetic test results show you have a high relative risk for Vitamin E insufficiency.

VITAMIN A

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
BCMO1	G	AG	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	T	AT	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	A	AG	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	G	TT	Reduced relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	T	CT	Moderate relative risk for active vitamin A conversion from beta-carotene.

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, your need for Vitamin A is relatively moderate. Depending on your vitamin A needs, the amount to be taken may vary. Vitamin A exists in two different forms. These are retinol group of animal origin and carotenes of vegetable origin. The most common form of vitamin A of animal origin is retinol. Retinol is stored by the body and then converted into an active form for use. This form of vitamin A is found in animal foods such as liver, eggs, oily fish, milk and cheese. The most common form of carotene, the herbal form of vitamin A, is beta-carotene. This form is abundant in carrots and other orange-colored foods. After digesting β-carotene, the herbal form of vitamin A, it must be converted to retinol for use by the body. It uses the enzyme β-carotene 15,15'-monooxygenase (BCMO1 or BCO1 gene) in this conversion. Genetic variants in the BCO1 gene cause the enzyme to be produced in varying amounts and affect the amount of vitamin A produced from dietary β-carotene. For this reason, it is recommended that people with variants in the BCO1 gene also take animal-derived vitamin A in their diet. A diet enriched with both forms of vitamin A is recommended for your daily needs. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin A.

VITAMIN D

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
VDR (VDR-Bsml)	A	AA	High relative risk for low vitamin D level..
CYP2R1	T	CT	Moderate relative risk for low vitamin D level
CYP2R1	A	AG	Moderate relative risk for low vitamin D level.
VDR (VDR-Fokl)	G	AG	Moderate relative risk for low vitamin D level.
GC	C	AA	Decreased relative risk for low vitamin D level.
GC	T	GG	Decreased relative risk for low vitamin D level.
VDR (VDRtalql)	C	CC	High relative risk for low vitamin D level.
VDR (Apal)	A	AA	High relative risk for vitamin D receptor function.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for Vitamin D is moderate. Vitamin D strengthens the immune system, has a protective effect against autoimmune diseases, protects against diseases such as cancer and heart diseases, diabetes and osteoporosis.Vitamin D deficiency causes bone and muscle weakness in adults.Sources recommended for adequate vitamin D intake; D2 form: Vitamin D2, known as ergocalciferol, can be obtained from fortified foods, plant foods, and vitamin supplements.Foods rich in vitamin D include egg yolks, fatty fish, and liver.D 3 form: Vitamin D3, called cholecalciferol, is taken from fortified foods, animal foods and vitamin supplements, it can be synthesized in the skin under the influence of ultraviolet rays.The form synthesized on the skin or taken with food is biologically ineffective.It becomes active after various reactions in the liver and kidney.

VITAMIN B6

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
ALPL	C	CT	Moderate relative risk for vitamin B6 levels.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for vitamin B6 shows a moderate risk. In order to determine your vitamin B6 needs, you should definitely evaluate the results of the B6 cofactor CBS360 and CBS699 genes. If your clinical findings suggest that it need B6, it is recommended for your health to consume at least 1.3 mg of essential Vitamin B6 in your daily diet. You can enrich your diet with foods such as red and white meat, fish and seafood, eggs, carrots, spinach, cauliflower, bananas and avocados, nuts, which are sources of Vitamin B6. If you are having difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin B6.

VITAMIN B12

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR	T	CC	Decreased relative risk for vitamin B12 deficiency and hyperhomocysteinemia.
MTRR	G	GG	High relative risk for hyperhomocysteinemia associated with B12 and folate deficiency.
TCN1	G	AA	Decreased relative risk for low plasma B12 level.
FUT2	G	AG	Moderate relative risk for low levels of serum vitamin B12.
TCN2	G	AA	Decreased relative risk for low plasma B12 level.

LOW RISK

SUGGESTIONS

According to your genetic result suggests that your need for Vitamin B12 has a lower increased risk. B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also linked to cardiovascular diseases that are thought to be mediated through hyperhomocysteinemia.Weakness, fatigue and forgetfulness are common due to low B12. Your genetic sensitivity should be supported with a diet rich in B12 sources in your diet. Besides B12, supportive cobalamin can be obtained from the diet; this vitamin is found in animal products such as meat, eggs and shellfish.You should consume your consumption of animal foods such as eggs in your diet, creating balanced and healthy meals, paying attention to the amount and frequency, and avoiding excessive consumption against hyperhomocysteinemia. If you have difficulty consuming these foods in your diet, consult your physician for B12 supplements in forms appropriate to your genetic sensitivities.

FOLATE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR A1298C	C	AC	Moderate relative risk for folate deficiency.
MTHFR C677T	T	CC	Reduced relative risk for folate deficiency.

LOW RISK

SUGGESTIONS

According to your genetic result, your folate (Vitamin B9) need shows a relatively low risk increase. Folate taken into the body through nutrition is converted to its active form, 5-MTHF, before entering the bloodstream. In addition to the digestive system, it also plays a role in the activation of folic acid in the liver and other tissues. The change in folate level, which is directly related to homocysteine, will affect your quality of life. You should adjust your Folate consumption to 0.4 mg during the day. As a source of Folate in your diet; You can also add a wide variety of foods such as vegetables, legumes, grains, eggs, and fruits. In addition, many foods are supplemented with synthetic folate or folic acid. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Folate (Vitamin B9).

VITAMIN C

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
SLC23A1	A	GG	Decreased relative risk for low plasma vitamin C.

LOW RISK

SUGGESTIONS

According to your genetic result, your need for vitamin C shows a relatively low risk increase. Vitamin C, which has antioxidant properties, is very important for skin health and immune system. Since it is one of the vitamins that are not stored in the body, it should be consumed in a balanced way in your daily diet. The richest sources of vitamin C: You should include red capia pepper, green pepper, fresh seasonal greens, seasonal fruits in your daily diet. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin C.

ZINC

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
SLC30A8	T	TT	High relative susceptibility for enhanced insulin response due to zinc supplementation.
IL6	G	CG	Moderate relative risk for zinc requirement.

HIGH RISK

SUGGESTIONS

According to your genetic result, it shows a relatively high risk increase in your Zinc need. Zinc, which includes many activities such as growth, development, protein synthesis, immune system, neurobehavioral developments, is very important for a strong nervous system and immune system. For this reason, attention should be paid to daily zinc intake. As a source of zinc in your diet; You should have plenty of red meat, turkey, chicken, seafood and almonds. In order to get more benefits from zinc, it is recommended to consume foods containing selenium, which has a synergistic effect. If you are having difficulty consuming these foods in your diet, consult your physician for proper Zinc use.

PHASE II - GLUTATION TRANSPHERASE

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
GSTP1	G	AA	Decreased relative risk for decreased enzyme function.
GSTM1	T	TT	High relative risk for decreased GSTM1 activity.
GSTA1	A	AA	High relative risk for allergy and asthma risk due to low or dysfunctional enzyme activity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your risk of Phase II Glutathione S Transferase enzyme activity is moderate. Your panel as a whole and your general clinical situation will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced.

PHASE II - NQO1

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
NQO1	T	CC	Decreased relative risk for quinone and benzene toxicity due to decreased enzyme activity.

LOW RISK

SUGGESTIONS

According to your genetic test result, your risk of NQO1 enzyme activity is low. To minimize your risk, you should stay away from external toxins such as benzene, which are found in gasoline fumes, laundry detergent, furniture polish, industrial uses, pesticides, and smoke.

PHASE II - NFE2L2

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
NFE2L2	A	AA	High relative risk for oxidative damage.
NFE2L2	C	CC	High relative risk for oxidative damage.
NFE2L2	A	AG	Moderate relative risk for oxidative damage.

HIGH RISK

SUGGESTIONS

According to your genetic test result, your oxidative damage risk is high due to the decreased Nrf2 activity which has protective effect against the oxidative damage. To increase Nrf2 activity, it is recommended to consume sulforaphane, a natural substance found in broccoli sprouts, Brussels sprouts, cabbage and cauliflower, curcumin, ellagic acid (Berries, pomegranate), carotenoids ((lycopene and Astaxanthin), resveratrol, tea polyphenols, olive oil, ginger, cinnamaldehyde, zinc and selenium and engage in physical activity.

SKIN HEALTH AND BEAUTY

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
SKIN AGING	MMP1, COL1A1, MMP3, ELN	Skin aging refers to the natural changes that occur in the structure and functionality of the skin over time. Skin aging may occur with symptoms such as wrinkles, fine lines, pigmentation changes, loss of elasticity and uneven skin tone. If these symptoms appear faster than the normal aging process, it can be referred to as premature skin aging. In addition to genetic factors, many environmental factors can affect skin aging. The sun's UV rays can reduce skin elasticity, causing wrinkles and blemishes. Smoking impairs the skin's blood supply, reducing the skin's oxygen and nutrient intake, which can cause wrinkles and skin tone irregularities. Chronic stress can lead to skin inflammation and the formation of free radicals, negatively impacting skin health and causing premature aging. Unhealthy eating habits can cause the skin not to receive the nutrients it needs, thus causing premature aging. Excessive alcohol consumption can accelerate premature aging by causing the skin to become dehydrated, dry and lose its elasticity. Air pollution and exposure to environmental toxins can trigger premature aging of the skin. Not getting enough sleep can negatively impact skin renewal and repair processes, which can contribute to premature aging.	To prevent premature aging of your skin, protect yourself from UV rays, stay away from smoking and alcohol, and eat a healthy and balanced diet according to your nutrigenetic test results.
VITAMIN A	BCMO1	Your panel as a whole and your general clinical situation will be evaluated by your doctor and advice and reinforcement will be given if deemed necessary. The benefit of vitamin A is highest with consumption of red/white meat + Plant-based diet. Vitamin A exists in two forms: Carotenes are plant forms of vitamin A precursor. Beta-carotene, the most common form, is abundant in carrots and other orange-colored foods. An enzyme in the gut also breaks down beta-carotene to form retinol. Those with animal food sources mainly provide retinyl palmitate, which is broken down into retinol in the intestines. In this form it is stored by the body and then converted into an active form for use. After beta-carotene has been digested, mixed with oils, and absorbed, it must be converted to retinol. This conversion uses the enzyme β-carotene 15,15'-monooxygenase (BCMO1 or BCO1 gene), which converts beta-carotene to retinal. Retinal converts to retinol. Genetic variants in the BCO1 gene cause the enzyme to be produced in varying amounts and affect the amount of vitamin A produced from dietary beta-carotene. For this reason, it is recommended that people with variants in the BCO1 gene also take vitamin A of animal origin in their diet. For your daily needs, a plant-based diet should be made with red and white meat, where you can benefit from vitamin A in your diet. A diet enriched with both forms of vitamin A is recommended. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin A.	For both vitamin A use in your diet, you can enrich your diet such as red/white meat + carrot salad / seasonal salad. You can consult the install for the necessary vitamin A intake. If you need it, use supplements.

VITAMIN D	VDR, GC, CYP2R1	Getting enough vitamin D; strengthens the immune system, shows a protective effect against autoimmune diseases. It protects against diseases such as cancer and heart diseases, diabetes and osteoporosis. Vitamin D deficiency can cause bone and muscle weakness in adults. D2 form: Vitamin D2, known as ergocalciferol, can be obtained from fortified foods, plant foods, and vitamin supplements. Foods rich in vitamin D include egg yolks, fatty fish, and liver. D3 form: Vitamin D3, called cholecalciferol, is taken from fortified foods, animal foods and vitamin supplements, and can be synthesized in the skin under the influence of ultraviolet rays. The form synthesized in the skin or taken with food is biologically ineffective. It becomes active after various reactions in the liver and kidney.	You can consult your doctor for the use of Hydroxyl B12, Adenosyl B12, Methylcobalamin B12, Probiotic, Vitamin D3K2, Calcium. Use supplements if your doctor deems it necessary. When necessary for vitamin D supplementation, attention should be paid to the level of vitamin D according to the results of the blood test.

PHOTOSENSITIVITY	ASIP, IRF4, MC1R, PIGU, TYR, XRRC1	Sun sensitivity or photosensitivity is a condition in which a person is hypersensitive to sunlight or artificial lights. Sun sensitivity can occur in the eyes as well as the skin. We can divide the harmful effects of the sun into acute (occurring immediately after exposure) and chronic (occurring in the late period due to long-term exposure) effects. Acute effects of sun sensitivity may include symptoms such as skin redness, burning, itching, blistering, as well as symptoms such as irritation, burning or redness in the eyes. Chronic effects of the sun are; premature aging of the skin, skin pigmentation disorders, DNA damage and cancer. Ultraviolet A (UVA) rays from the sun penetrate deep layers of the skin and are associated with long-term damage such as premature aging, wrinkles, pigmentation disorders and skin cancer. UVB rays penetrate the upper layer of skin and can lead to sunburn, increased risk of skin cancer and DNA damage. UVC is absorbed in the upper layers of the atmosphere and usually does not reach the surface. But artificial UV sources, especially tanning beds, can emit UVC rays and increase the risk of skin cancer. Visible light is part of the sun's white light spectrum. Overexposure may increase the risk of retinal damage, cataract formation, and eye cancer. Sun rays can cause signs of premature aging on the skin. These symptoms include wrinkles, fine lines, blemishes, loss of skin elasticity and sagging. Long-term sun exposure may increase the risk of skin cancer. UV rays can cause DNA damage in skin cells, which can lead to the development of cancer. The most common types of skin cancer include basal cell carcinoma, squamous cell carcinoma, and melanoma. Sun rays can cause pigmentation disorders on the skin. This can lead to the formation of dark spots (hyperpigmentation) or light spots (hypopigmentation) on the skin. The sun's UV rays can affect the skin's immune system, resulting in vulnerability to infections.	Before going out in the sun, use a broad-spectrum (blocking UVA and UVB rays) sunscreen with at least SPF 30. Apply sunscreen to all exposed areas of the skin, especially areas directly exposed to the sun, such as the face, neck, arms and hands. To maintain the effectiveness of sunscreen, choose water-resistant ones and reapply every two hours or after sweating. When going out in the sun, wear dark-coloured, loose-fitting clothing that covers arms and legs if possible. Also, protect your face and eyes from the sun's harmful rays by wearing a wide-brimmed hat and sunglasses. Avoid being outside as much as possible between 10:00 and 16:00, when the sun is at its peak. If you must go out during these hours, try to stay in areas with shade. If you experience symptoms such as redness, burning, blistering, or blistering on your skin after sun exposure, immediately rest in the shade and wash your skin with cool water or moisturizing lotion. If you have severe burns or skin lesions, contact a healthcare professional.

CHRONIC INFLAMMATION	IL1B, IL6, TNF	During the day, you should create your diet from healthy and balanced meals according to your genetic sensitivities and current clinical findings. You should be protected from packaged food and external toxins (chemicals, microplastics, cigarette smoke, cosmetic products), and you should prefer environmentally friendly products as much as possible. You should determine your appropriate exercise routine in all of your personal sensitivities and increase your physical activity. It is necessary to eliminate vitamin deficiencies and pay particular attention to magnesium. If there is dysbiosis according to the microbiota test result, the intestine should be regulated with appropriate probiotics. It can be applied to initiate epigenetic changes with preventive, inflammation-reducing nutritional and lifestyle recommendations. Studies on serotonin and gut microbiota are seen in the studies. When deemed necessary, a microbiota test can be performed by your doctor for appropriate probiotic supplement recommendation. It's important to remember that routine exercise and an anti-inflammatory diet are important in reducing inflammation. (Consult your doctor and use supplements if your doctor deems it necessary)	Depending on the increased inflammation, you can initiate epigenetic changes with anti-inflammatory diet and lifestyle suggestions that prevent the risk of skin aging. Your general panel will be evaluated by your doctor and supplementation will be started if necessary.
FEMALE PATTERN HAIR LOSS	AR/EDA2R, CYP19A1	A balanced diet is one of the most important factors to consider to prevent hair loss in women. B vitamins, vitamin D, iron, zinc and biotin are especially important for hair health. Adequate protein intake also helps maintain hair structure. Foods containing omega-3 fatty acids, such as salmon, walnuts and flaxseed, contribute to the health of hair follicles. Protecting hair from chemical exposure is also important for hair health. Chemical treatments such as hair dyes, perms and straighteners can weaken hair. Limiting such treatments may be beneficial. Tight hairstyles such as tight ponytails and buns can damage hair follicles and lead to hair loss. Be gentle when washing hair and avoid using extremely hot water. It is also important to dry hair gently with a soft towel when drying.	You can use appropriate vitamins and food supplements with your doctor's advice.

VITAMIN E	APOA5, CYP4F2, ZPR1	Vitamin E is a powerful antioxidant that has many positive effects on skin health. Vitamin E protects the skin from oxidative stress by fighting against free radicals. Free radicals can damage skin cells and increase the signs of aging (fine lines, wrinkles, blemishes). Vitamin E slows down this process, helping the skin to stay young and healthy. Vitamin E helps the skin retain its moisture. Since it is a fat-soluble vitamin, it can penetrate the lipid layer of the skin and prevent water loss from the skin, keeping the skin soft and smooth. This is especially beneficial for dry skin. Vitamin E helps skin cells regenerate and repair. It speeds up the healing process of sun damage, scars, stretch marks, and other skin damage. It also promotes the formation of new cells, making the skin look healthier. Vitamin E increases the skin's resistance to the sun's harmful UV rays. UV rays can cause free radicals to form in the skin, increasing the risk of premature aging and skin cancer. Vitamin E can create a barrier against these negative effects of the sun. However, vitamin E alone is not enough for sun protection; it is recommended to use it together with sunscreen. Vitamin E can reduce inflammation and irritation in the skin. For people with eczema, dermatitis, and other skin conditions, products containing vitamin E can help soothe the skin. Vitamin E may be effective in reducing the appearance of scars. It helps scars heal faster and skin looks more even by promoting cellular regeneration.	Vitamin E is an active ingredient in many skin care products (moisturizers, serums, creams). Pure vitamin E oil can also be applied directly to the skin. These products can be used to nourish, repair, and protect the skin. Topical Application: Creams or oils containing vitamin E can be applied directly to the skin. Diet: Consuming foods rich in vitamin E also supports skin health from the inside.
VITAMIN B6	ALPL	Consuming foods containing B6 in your daily diet will be healthy for your B6 levels. Your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. Sources of Vitamin B6: Red and white meat, fish and seafood, eggs, carrots, spinach, cauliflower, bananas and avocados, nuts. If you have difficulty consuming these foods in your diet, vitamin B6 supplementation can be started under the control of a doctor.	Use of active folate (folic acid), vitamin B6, B12, Magnesium. You can consult your doctor. Use supplements if your doctor deems it necessary.
VITAMIN B12	FUT2, MTHFR, MTRR, TCN1, TCN2	B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also associated with cardiovascular diseases thought to be mediated through hyperhomocysteinemia. Your genetic susceptibility can be supported by a diet rich in B12 sources in your diet. Cobalamin can be obtained from the diet; This vitamin is found in animal products such as meat, eggs, and shellfish. You should consume your animal foods such as eggs in your diet by creating balanced and healthy meals, paying attention to the amount and frequency, and avoid excessive consumption against hyperhomocysteinemia. According to your COMT gene, microbiota analysis and other panels, appropriate B12 supplementation will be recommended by your doctor if necessary. It may be recommended to periodically take B12 supplements in appropriate forms for all of your genetic sensitivities. All supplements should be followed under the supervision of a doctor.	Hydroxyl B12, Adenosyl B12, Methylcobalamin B12, B12 values should be checked regularly, supplementation is started by your doctor if necessary.

FOLATE	MTHFR	Your folate-related panel and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be given. There are many genetic and environmental factors that contribute to increased homocysteine levels; diet, stress, lifestyle, some chronic diseases, heavy metal accumulation, some vitamin and mineral deficiencies may increase the risk of homocysteine. Attention should be paid to active folate, vitamin B6, vitamin B12, betaine, vitamin B2 and magnesium deficiency. Adequate amount of need must be provided. Methionine-rich diet (excessive consumption of red meat and dairy products) is not recommended. Folic acid is a synthetically produced folate derivative. The names are often used interchangeably, but there are distinct differences between the two. folate; It is found in a wide variety of foods such as vegetables, legumes, grains, eggs, and fruits. In addition, many foods are supplemented with synthetic folate or folic acid. Folate ingested in the body is converted to its active form, 5-MTHF, before entering the bloodstream. In addition to the digestive system, liver and other tissues take part in the activation of folic acid.	Dark green leafy vegetables should be mainly fed in the diet. According to the results of your B12, B2 and magnesium, choline panels, supplementation can be started by your doctor if necessary.
VITAMIN C	SLC23A1	Vitamin C shows antioxidant properties, so the requirement should be met with your diet during the day. Since vitamin C is one of the vitamins that are not stored in the body, it is recommended to consume it in a balanced way in your daily diet. The richest sources of vitamin C: You should include red capia pepper, green pepper, fresh seasonal greens, seasonal fruits in your daily diet. If you cannot consume it, it may be recommended by your doctor if it is deemed necessary to take vitamin supplements.	Multivitamin (vitamin c) can be used.You can consult your doctor. Use supplements if your doctor deems it necessary.
ZINC	IL6, SLC30A8	Selenium + zinc work synergistically. Dietary sources of zinc should also be provided with care. In addition, zinc, which includes many activities such as growth, development, protein synthesis, immune system, neurobehavioral developments, should be taken in sufficient amounts for a strong nervous system and immune system. Its richest sources are red meat, turkey, chicken, seafood, and almonds.	You can consult your doctor. Use supplements if your doctor deems it necessary.
PHASE II - GLUTATION TRANSPHERASE	GSTA1, GSTM1, GSTP1	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.

PHASE II - NQO1	NQO1	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements.	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.
PHASE II - NFE2L2	NFE2L2	Your panel as a whole and your general clinical condition will be evaluated by your doctor, and if necessary, advice and reinforcement will be provided. For adequate function, the diet must be balanced with cruciferous vegetables containing isothiocyanates. According to your CBS panel results and your clinical condition, the amount and frequency of consumption of foods containing sulfur will be evaluated and recommended by your doctor. Exposure to harmful chemicals (cosmetics, shampoo, shower gel, detergent) that will cause toxin formation should be reduced. It is inconvenient to use multiple drugs and to use supplements. NRF2 activators: Sulforaphane (broccoli sprouts, Brussels sprouts, cabbage and cauliflower), Ellagic acid (Berries, pomegranate, grapes, walnuts, and blackcurrants), Astaxanthin (Algae, yeast, salmon, trout, krill, shrimp, and crayfish), Cinnamaldehyde (cinnamon, tomatoes, carrots, spinach, cucumber, lettuce, celery, apples and oranges), lycopene (tomatoes and other red fruits), tea polyphenols (cathechins), resveratrol (red grapes, peanuts, pineapple), olive oil, ginger, zinc, selenium	Antioxidant can be used. In consultation with your doctor, use supplements if your doctor deems it necessary.

MALE REPRODUCTIVE HEALTH

MALE INFERTILITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
CAT	G	AG	Moderate relative risk for male infertility.
NOS3	T	GT	Moderate relative risk for male infertility.
MTHFR C677T	T	CC	Low relative risk for vitamin B12 deficiency, hyperhomocysteinemia, and male infertility.
PON1	G	AG	Moderate relative risk for male infertility.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your infertility risk is relatively average.

GLUTEN SENSITIVITY

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
LPP	A	AC	Moderate relative risk for gluten sensitivity.
HLA-DQ2.5	A	GG	Reduced relative risk for gluten sensitivity.
HLA-DQ 2.2	T	TT	High relative risk for gluten sensitivity.
LOC105371664	T	GT	Moderate relative risk for gluten sensitivity.
HLA-DQ4	T	TT	High relative risk for gluten sensitivity.
Intergenic	T	TT	High relative risk for gluten sensitivity.
HLA-DQ8	C	TT	Reduced relative risk for gluten sensitivity.
HLA-DQ2.2	C	TT	Reduced relative risk for gluten sensitivity.
REL	A	AA	High relative risk for gluten sensitivity.
IL18RAP	A	GG	Reduced relative risk for gluten sensitivity.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, you have a moderate risk of gluten sensitivity. If you feel sensitive after gluten consumption in your diet, it is recommended to consume gluten-free foods. Buckwheat, basmati rice, quinoa, chickpea flour, corn, cornmeal, lentils, potatoes, vegetables and fruits, etc. such as gluten-free foods. It is recommended to determine the foods that cause sensitivity by keeping a food consumption record and to pay attention to the gluten content in packaged products. Your doctor can recommend appropriate supplements and recommendations based on your clinical situation. Gluten-containing foods; Wheat and wheat-containing products, rye, barley, processed meat and broth, soy sauce, salad dressings, nuts with sauce, semolina, meat and seafood imitations, prepared foods, etc.

VITAMIN D

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
VDR (VDR-Bsml)	A	AA	High relative risk for low vitamin D level..
CYP2R1	T	CT	Moderate relative risk for low vitamin D level
CYP2R1	A	AG	Moderate relative risk for low vitamin D level.
VDR (VDR-Fokl)	G	AG	Moderate relative risk for low vitamin D level.
GC	C	AA	Decreased relative risk for low vitamin D level.
GC	T	GG	Decreased relative risk for low vitamin D level.
VDR (VDRtalql)	C	CC	High relative risk for low vitamin D level.
VDR (Apal)	A	AA	High relative risk for vitamin D receptor function.

MEDIUM RISK

SUGGESTIONS

According to your genetic result, your need for Vitamin D is moderate. Vitamin D strengthens the immune system, has a protective effect against autoimmune diseases, protects against diseases such as cancer and heart diseases, diabetes and osteoporosis.Vitamin D deficiency causes bone and muscle weakness in adults.Sources recommended for adequate vitamin D intake; D2 form: Vitamin D2, known as ergocalciferol, can be obtained from fortified foods, plant foods, and vitamin supplements.Foods rich in vitamin D include egg yolks, fatty fish, and liver.D 3 form: Vitamin D3, called cholecalciferol, is taken from fortified foods, animal foods and vitamin supplements, it can be synthesized in the skin under the influence of ultraviolet rays.The form synthesized on the skin or taken with food is biologically ineffective.It becomes active after various reactions in the liver and kidney.

IRON

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
TF	C	CC	Increased relative risk for iron deficiency anemia.
HFE	C	CC	Increased relative risk for iron deficiency anemia associated with relatively decreased iron load.
HFE	G	GG	Increased relative risk for iron deficiency anemia associated with relatively decreased iron load
TF	A	AG	Moderate relative risk for iron deficiency anemia.
TMPRSS6	G	AA	Decreased relative risk for iron deficiency anemia.
TMPRSS6	A	GG	Decreased relative risk for iron deficiency anemia.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, you have moderate risk of iron deficiency. It is important to consume iron-rich foods to prevent iron deficiency and associated anemia. These include red meat, chicken, turkey, fish, legumes (lentils, chickpeas, beans), dried fruits (especially raisins), green leafy vegetables (spinach, chard, broccoli). Vitamin C can increase the absorption of iron. Therefore, it may be beneficial to consume iron-containing foods together with foods containing vitamin C. For example, fruits such as oranges, tangerines, grapefruits or vegetables such as tomatoes and peppers. The tannin substance in tea and coffee can reduce the absorption of iron. Therefore, limiting the consumption of tea and coffee with meals or drinking these beverages between meals can increase iron absorption. It is important to develop a healthy and balanced eating habit. A diet that includes adequate amounts of various food groups supports the body's overall health and may reduce the risk of iron deficiency. Iron supplements can be given to people with iron deficiency with the recommendation of a doctor. However, iron supplements should only be used under a doctor's supervision, as excessive iron intake can also cause health problems.

OMEGA-3

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
FADS1 (MYRF)	T	TT	High relative risk for impaired biogenesis.
FADS1	T	TT	High relative risk for the need of Omega-3 (EPA/DHA).
FADS1	C	CC	High relative risk for decreased D5D and D6D fatty acid desaturase enzyme activity.
FADS2	T	CT	Moderate relative risk for AA, and AA/LA levels.

HIGH RISK

SUGGESTIONS

According to your genetic result, your need for Omega-3 is quite high. In order to maintain your optimal health, it is recommended to take at least 1.6 g of Omega-3 every day and to consume 2-3 servings of Omega-3 sources per week. Your diet should be enriched with plant omega-3 sources such as low-histamine cold seafood, small oily fish, purslane, spinach, pumpkin, walnuts, flaxseed and chia seeds, which are the best sources of Omega-3 (take into account your food allergies). The use of herbal Omega-3 sources is recommended for vegetarian individuals. Your doctor will initiate supplementation based on your general clinical condition.

VITAMIN A

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
BCMO1	G	AG	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	T	AT	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	A	AG	Moderate relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	G	TT	Reduced relative risk for active conversion of vitamin A from beta-carotene.
BCMO1	T	CT	Moderate relative risk for active vitamin A conversion from beta-carotene.

MEDIUM RISK

SUGGESTIONS

According to the results of your genetic test, your need for Vitamin A is relatively moderate. Depending on your vitamin A needs, the amount to be taken may vary. Vitamin A exists in two different forms. These are retinol group of animal origin and carotenes of vegetable origin. The most common form of vitamin A of animal origin is retinol. Retinol is stored by the body and then converted into an active form for use. This form of vitamin A is found in animal foods such as liver, eggs, oily fish, milk and cheese. The most common form of carotene, the herbal form of vitamin A, is beta-carotene. This form is abundant in carrots and other orange-colored foods. After digesting β-carotene, the herbal form of vitamin A, it must be converted to retinol for use by the body. It uses the enzyme β-carotene 15,15'-monooxygenase (BCMO1 or BCO1 gene) in this conversion. Genetic variants in the BCO1 gene cause the enzyme to be produced in varying amounts and affect the amount of vitamin A produced from dietary β-carotene. For this reason, it is recommended that people with variants in the BCO1 gene also take animal-derived vitamin A in their diet. A diet enriched with both forms of vitamin A is recommended for your daily needs. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin A.

DIABETES

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
WSF1	G	AG	Moderate relative risk for type 2 diabetes.
MTNR1B	G	CC	Decreased relative risk for Type 2 Diabetes and gestational diabetes.
HHEX	G	AG	Moderate relative risk for type 2 diabetes.
SLC30A8	C	TT	Decreduced relative risk for type 2 diabetes.
PPARG	C	CC	High relative risk for metabolic syndrome.
TCF7L2	T	AT	Moderate relative risk for Type 2 diabetes and decreased beta cell function.
TCF7L2	T	CT	Moderate relative risk for impaired beta cell function and type 2 diabetes.
HHEX	G	AG	Moderate relative risk for type 2 diabetes.

MEDIUM RISK

SUGGESTIONS

Based on your genetic test results, your risk of Type 2 diabetes is average. In order to minimize the risk of diabetes you may encounter in the future, adequate and balanced nutrition should be provided, and at least five portions of vegetables and fruits should be consumed per day. Whole grain products and legumes should be preferred instead of simple carbohydrates such as sugar, and simple carbohydrates should not exceed 10 percent of daily energy. An active lifestyle should be adopted, at least 30 minutes of moderate-intensity activity should be done regularly, at least 5 days a week.

VITAMIN B12

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
MTHFR	T	CC	Decreased relative risk for vitamin B12 deficiency and hyperhomocysteinemia.
MTRR	G	GG	High relative risk for hyperhomocysteinemia associated with B12 and folate deficiency.
TCN1	G	AA	Decreased relative risk for low plasma B12 level.
FUT2	G	AG	Moderate relative risk for low levels of serum vitamin B12.
TCN2	G	AA	Decreased relative risk for low plasma B12 level.

LOW RISK

SUGGESTIONS

According to your genetic result suggests that your need for Vitamin B12 has a lower increased risk. B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also linked to cardiovascular diseases that are thought to be mediated through hyperhomocysteinemia.Weakness, fatigue and forgetfulness are common due to low B12. Your genetic sensitivity should be supported with a diet rich in B12 sources in your diet. Besides B12, supportive cobalamin can be obtained from the diet; this vitamin is found in animal products such as meat, eggs and shellfish.You should consume your consumption of animal foods such as eggs in your diet, creating balanced and healthy meals, paying attention to the amount and frequency, and avoiding excessive consumption against hyperhomocysteinemia. If you have difficulty consuming these foods in your diet, consult your physician for B12 supplements in forms appropriate to your genetic sensitivities.

CHRONIC INFLAMMATION

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
IL1B	G	GG	High relative risk for chronic inflammation due to increased IL1B level.
TNF	A	GG	Low relative risk for chronic inflammation due to normal TNF level.
Il6	C	CG	Moderate relative risk for chronic inflammation due to slightly increased IL6 level.
IL6	A	AG	Moderate relative risk for chronic inflammation due to slightly increased IL6 level.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, you have moderate tendency to chronic inflammation.

VITAMIN E

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
APOA5	C	CC	Increased relative risk for plasma alpha tocopherol levels.
CYP4F2	C	CC	Increased relative risk for plasma alpha tocopherol levels.
ZPR1	C	CC	Increased relative risk for plasma alpha tocopherol levels.

HIGH RISK

SUGGESTIONS

Your genetic test results show you have a high relative risk for Vitamin E insufficiency.

FTO

GENES	RISK ALEL	GENOTYPE	YOUR RESULTS
FTO	A	AT	Moderate relative risk for VKI and obesity.
ADİPOQ	C	TT	Decreased relative risk for Type 2 Diabetes.
FTO	T	GT	Moderately relative risk for VKI and obesity.
FTO	A	AT	Moderate relative risk for VKI and obesity.

MEDIUM RISK

SUGGESTIONS

According to your genetic test results, your risk of obesity associated with the FTO gene is average. If you are overweight, you should seek expert help and an appropriate treatment plan should be determined. The level of physical activity should be increased, high-calorie, unnatural sugar-containing foods rich in saturated fats should not be consumed. Attention should be paid to the variety of food, vegetables and fruits should be consumed in season.

MALE REPRODUCTIVE HEALTH

CONTENTS	GENES	SUGGESTIONS	LIFE STYLES
MALE INFERTILITY	MTHFR, NOS3, SOD2, CAT, PON1, GPX1	Couples experiencing infertility problems should definitely consult a doctor and the tests and treatments recommended by the doctors should be applied. The recommendations here are not intended to treat infertility, they are supportive of the treatment but should not be considered as treatment recommendations. The main factor that men should pay attention to in order to protect themselves from infertility is a healthy diet. Foods rich in antioxidants such as vitamin C, vitamin E, selenium and zinc should be consumed. A balanced diet including vegetables, fruits, whole grains, healthy oils (e.g. omega-3 fatty acids) and protein sources (e.g. fish, chicken, eggs) will have a positive effect on male reproductive health. Highly processed foods and sugary foods, smoking and alcohol consumption can negatively affect sperm quality. Smoking can reduce sperm count and motility. Excessive alcohol consumption can lower testosterone levels and negatively affect sperm production. Extremely hot environments (e.g. sauna, hot bath, prolonged use of a laptop) should be avoided as they can negatively affect sperm production. Regular exercise improves general health and maintains hormone balance. However, excessive exercise can lower testosterone levels. Chronic stress can lead to hormonal imbalances and poor sperm quality. Stress management techniques can positively impact mental health and reproductive function. Avoid harmful chemicals such as bisphenol A and phthalates, which are endocrine disruptors. Avoiding pesticides, heavy metals, and some types of plastics can also help preserve fertility.	Please consult health professionals.
GLUTEN SENSITIVITY	HLA-DQ2.5 HLA-DQ8, HLA-DQ2.2, HLA-DQ4	Your general clinical condition will be evaluated, and if necessary, appropriate supplements and recommendations will be made by your doctor. If you feel sensitive after gluten consumption in your diet, you can try gluten-free foods. Buckwheat, basmati rice, quinoa, chickpea flour, cornmeal, lentils, potatoes and vegetables and fruits are among the gluten-free foods. By keeping a food consumption record, you can detect any food that causes sensitivity. In addition to paying attention to the gluten label in packaged products, if you are sensitive, it may be good for your sensitivity.	You can include foods containing probiotics and prebiotics in your balanced and regular diet.

VITAMIN D	VDR, GC, CYP2R1	Getting enough vitamin D; strengthens the immune system, shows a protective effect against autoimmune diseases. It protects against diseases such as cancer and heart diseases, diabetes and osteoporosis. Vitamin D deficiency can cause bone and muscle weakness in adults. D2 form: Vitamin D2, known as ergocalciferol, can be obtained from fortified foods, plant foods, and vitamin supplements. Foods rich in vitamin D include egg yolks, fatty fish, and liver. D3 form: Vitamin D3, called cholecalciferol, is taken from fortified foods, animal foods and vitamin supplements, and can be synthesized in the skin under the influence of ultraviolet rays. The form synthesized in the skin or taken with food is biologically ineffective. It becomes active after various reactions in the liver and kidney.	You can consult your doctor for the use of Hydroxyl B12, Adenosyl B12, Methylcobalamin B12, Probiotic, Vitamin D3K2, Calcium. Use supplements if your doctor deems it necessary. When necessary for vitamin D supplementation, attention should be paid to the level of vitamin D according to the results of the blood test.

IRON	HFE, TF, TMPRSS6	Iron is a trace mineral that has many important functions in the body. Iron has important roles for human health. Oxygen Transport: Hemoglobin is a protein found in red blood cells in the body and carries oxygen from the lungs to tissues. Hemoglobin contains iron in its structure, and iron plays a critical role in the transport of oxygen. Energy Production: Iron is found in the structure of some enzymes such as cytochromes, which are part of cellular respiration required for energy production in the body. Immune System: Iron is necessary for the normal functions of immune system cells. The body needs iron to fight infections and resist diseases. Brain Functions: Iron is necessary for normal brain functions. Iron deficiency can cause loss of concentration, mental fatigue and decreased cognitive functions. Cellular Growth and Development: Iron is essential for cellular growth and development. It is especially important for children to have sufficient iron for their normal development. Iron deficiency can cause many health problems and trigger serious conditions such as anemia. Therefore, consuming iron-rich foods or taking iron supplements is important to meet the body's iron needs. However, it is important to talk to a healthcare professional before using iron supplements because excess iron intake can also lead to health problems.	Please consult your doctor and dietitian for nutrients and food supplements suitable for your genetic test results. Here are some factors to consider in nutrition to prevent or treat iron deficiency: Iron-Rich Foods: It is important to consume iron-rich foods. These include red meat, chicken, turkey, fish, legumes (lentils, chickpeas, beans), dried fruits (especially raisins), green leafy vegetables (spinach, chard, broccoli). Foods Containing Vitamin C: Vitamin C can increase the absorption of iron. Therefore, it may be beneficial to consume iron-containing foods together with foods containing vitamin C. For example, fruits such as orange, tangerine, grapefruit or vegetables such as tomatoes and peppers contain vitamin C. Plant Sources of Iron: Iron from plant foods is less absorbed than iron from animal sources. However, for vegetarian or vegan individuals at risk of iron deficiency, it is important to regularly consume plant sources containing iron (dry legumes, dried fruits, green leafy vegetables). Limiting Tea and Coffee Consumption: The tannin substance in tea and coffee can reduce the absorption of iron. Therefore, limiting the consumption of tea and coffee with meals or drinking these beverages between meals can increase iron absorption. Balanced and Various Nutrition: It is important to develop a healthy and balanced eating habit. A diet that includes adequate amounts of various food groups supports the body's overall health and may reduce the risk of iron deficiency. Iron Supplements: People with iron deficiency can be given iron supplements with the recommendation of a doctor. However, iron supplements should only be used under a doctor's supervision, as excessive iron intake can also cause health problems. If you observe symptoms of iron deficiency or if you are at risk, it is important to speak with a healthcare professional. Your doctor can guide you for a proper diagnosis and treatment.
OMEGA-3	FADS1, FADS2	Omega-3 requirement can also be obtained by enriching the diet (with low histamine content and suitable cold seafood, small oily fish, plant foods such as purslane, spinach, zucchini). diet can be enriched. Your doctor will initiate supplementation, if necessary, based on your general clinical condition.	You can consult your doctor. Use supplements if your doctor deems it necessary.

VITAMIN A	BCMO1	Your panel as a whole and your general clinical situation will be evaluated by your doctor and advice and reinforcement will be given if deemed necessary. The benefit of vitamin A is highest with consumption of red/white meat + Plant-based diet. Vitamin A exists in two forms: Carotenes are plant forms of vitamin A precursor. Beta-carotene, the most common form, is abundant in carrots and other orange-colored foods. An enzyme in the gut also breaks down beta-carotene to form retinol. Those with animal food sources mainly provide retinyl palmitate, which is broken down into retinol in the intestines. In this form it is stored by the body and then converted into an active form for use. After beta-carotene has been digested, mixed with oils, and absorbed, it must be converted to retinol. This conversion uses the enzyme β-carotene 15,15'-monooxygenase (BCMO1 or BCO1 gene), which converts beta-carotene to retinal. Retinal converts to retinol. Genetic variants in the BCO1 gene cause the enzyme to be produced in varying amounts and affect the amount of vitamin A produced from dietary beta-carotene. For this reason, it is recommended that people with variants in the BCO1 gene also take vitamin A of animal origin in their diet. For your daily needs, a plant-based diet should be made with red and white meat, where you can benefit from vitamin A in your diet. A diet enriched with both forms of vitamin A is recommended. If you have difficulty consuming these foods in your diet, consult your physician for the appropriate use of Vitamin A.	For both vitamin A use in your diet, you can enrich your diet such as red/white meat + carrot salad / seasonal salad. You can consult the install for the necessary vitamin A intake. If you need it, use supplements.
VITAMIN B12	MTRR, TCN1, TCN2, MTHFR, FUT2	B12 deficiency is clinically associated with megaloblastic anemia and neurodegenerative disorders, and is also associated with cardiovascular diseases thought to be mediated through hyperhomocysteinemia. Your genetic susceptibility can be supported by a diet rich in B12 sources in your diet. Cobalamin can be obtained from the diet; This vitamin is found in animal products such as meat, eggs, and shellfish. You should consume your animal foods such as eggs in your diet by creating balanced and healthy meals, paying attention to the amount and frequency, and avoid excessive consumption against hyperhomocysteinemia. According to your COMT gene, microbiota analysis and other panels, appropriate B12 supplementation will be recommended by your doctor if necessary. It may be recommended to periodically take B12 supplements in appropriate forms for all of your genetic sensitivities. All supplements should be followed under the supervision of a doctor.	Hydroxyl B12, Adenosyl B12, Methylcobalamin B12, B12 values should be checked regularly, supplementation is started by your doctor if necessary.

VITAMIN E	APOA5, CYP4F2, ZPR1	Vitamin E is a powerful antioxidant that has many positive effects on skin health. Vitamin E protects the skin from oxidative stress by fighting against free radicals. Free radicals can damage skin cells and increase the signs of aging (fine lines, wrinkles, blemishes). Vitamin E slows down this process, helping the skin to stay young and healthy. Vitamin E helps the skin retain its moisture. Since it is a fat-soluble vitamin, it can penetrate the lipid layer of the skin and prevent water loss from the skin, keeping the skin soft and smooth. This is especially beneficial for dry skin. Vitamin E helps skin cells regenerate and repair. It speeds up the healing process of sun damage, scars, stretch marks, and other skin damage. It also promotes the formation of new cells, making the skin look healthier. Vitamin E increases the skin's resistance to the sun's harmful UV rays. UV rays can cause free radicals to form in the skin, increasing the risk of premature aging and skin cancer. Vitamin E can create a barrier against these negative effects of the sun. However, vitamin E alone is not enough for sun protection; it is recommended to use it together with sunscreen. Vitamin E can reduce inflammation and irritation in the skin. For people with eczema, dermatitis, and other skin conditions, products containing vitamin E can help soothe the skin. Vitamin E may be effective in reducing the appearance of scars. It helps scars heal faster and skin looks more even by promoting cellular regeneration.	Vitamin E is an active ingredient in many skin care products (moisturizers, serums, creams). Pure vitamin E oil can also be applied directly to the skin. These products can be used to nourish, repair, and protect the skin. Topical Application: Creams or oils containing vitamin E can be applied directly to the skin. Diet: Consuming foods rich in vitamin E also supports skin health from the inside.
CHRONIC INFLAMMATION	IL1B, IL6, TNF	During the day, you should create your diet from healthy and balanced meals according to your genetic sensitivities and current clinical findings. You should be protected from packaged food and external toxins (chemicals, microplastics, cigarette smoke, cosmetic products), and you should prefer environmentally friendly products as much as possible. You should determine your appropriate exercise routine in all of your personal sensitivities and increase your physical activity. It is necessary to eliminate vitamin deficiencies and pay particular attention to magnesium. If there is dysbiosis according to the microbiota test result, the intestine should be regulated with appropriate probiotics. It can be applied to initiate epigenetic changes with preventive, inflammation-reducing nutritional and lifestyle recommendations. Studies on serotonin and gut microbiota are seen in the studies. When deemed necessary, a microbiota test can be performed by your doctor for appropriate probiotic supplement recommendation. It's important to remember that routine exercise and an anti-inflammatory diet are important in reducing	Depending on the increased inflammation, you can initiate epigenetic changes with anti-inflammatory diet and lifestyle suggestions that prevent the risk of skin aging. Your general panel will be evaluated by your doctor and supplementation will be started if necessary.

DIABETES	MTNR1B, TCF7L2, SLC30A8, IRS1, HHEX, PPARG, KCNJ1	Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary. Tips for preventing type 2 diabetes and its complications: Adequate and balanced nutrition should be provided; At least five servings of vegetables and fruits should be consumed per day. Whole grain products and legumes should be preferred instead of simple carbohydrates such as sugar, and simple carbohydrates should not exceed 10 percent of daily energy. It should be noted that the amount of salt consumed per day should not exceed 5 g. An active lifestyle should be adopted, at least 30 minutes of moderate- intensity activity should be done regularly, at least 5 days a week. (fast walking, etc.). Overweight people should do more physical activity to lose weight. Smoking should not be used, excessive alcohol should not be consumed. Appropriate body weight should be targeted. 25-30 percent of the energy needed daily should be provided from fats, and the energy rate from saturated fatty acids should be below 10 percent.	Zinc and Magnesium for consult your doctor and use supplements if your doctor deems it necessary.
FTO	FTO	If you are overweight, specialist help should be sought and an appropriate treatment plan should be determined in order to lose weight and control the weight. Physical activity level should be increased, daily walking and exercises should be made a habit. Avoid high-calorie, ready-to-eat foods that have a long shelf life. Unnatural sugar should not be consumed and attention should be paid to daily salt intake. Healthy cooking techniques should be preferred. You should consume the amount of water you need during the day. Eating habits should be changed and meals should be eaten slowly. Pay attention to fat consumption, saturated fats should be taken as little as possible. Attention should be paid to food diversity and a balanced diet should be provided from each food group. Vegetables and fruits should be consumed in season. Alcohol intake should be avoided Your general clinical condition will be evaluated by your doctor and advice and recommendations will be given if necessary.	You can talk to your doctor and dietitian. You can apply a specially created diet plan for you.

Dairy products and lactose intolerance

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