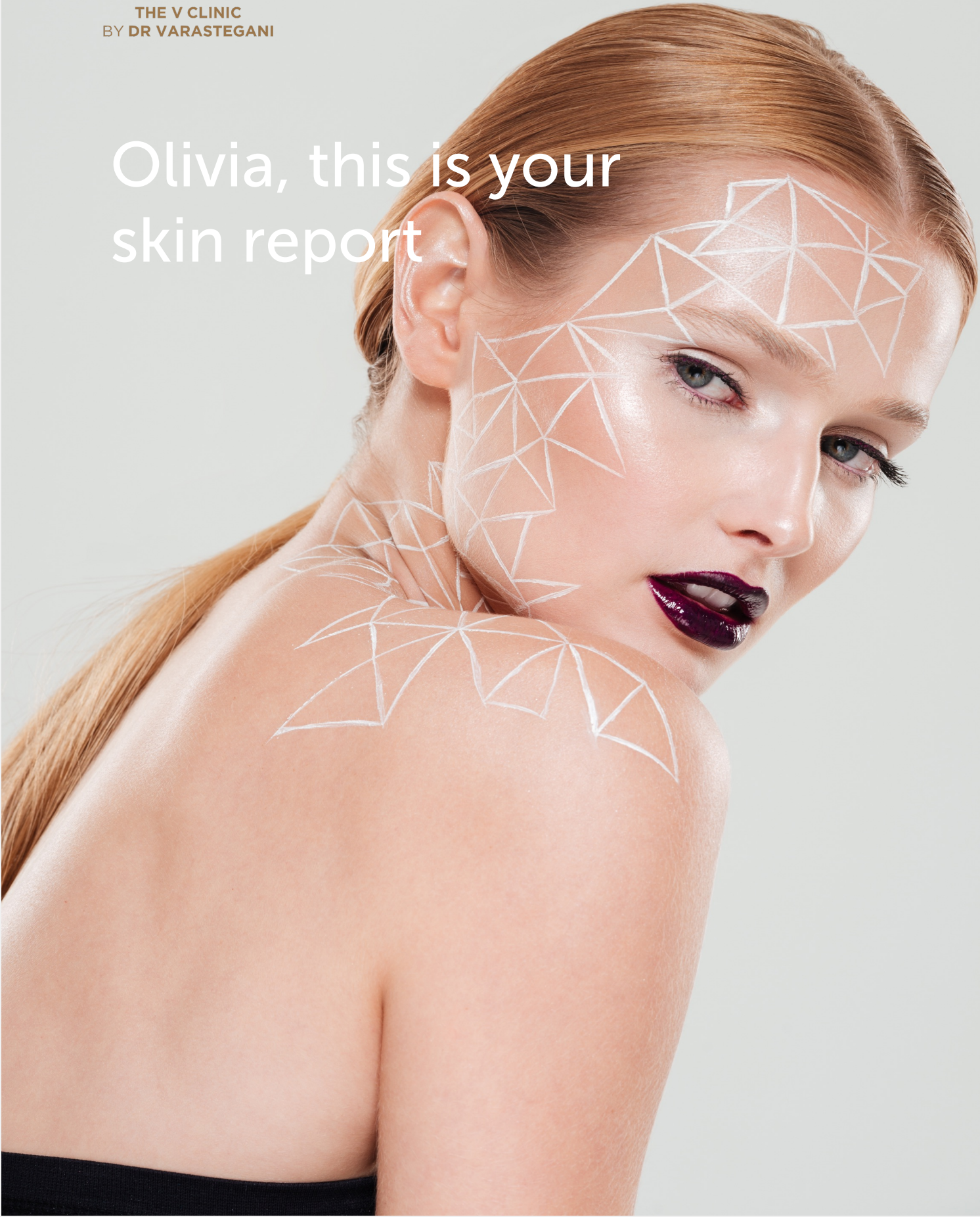
THE V CLINIC
BY DR VARASTEGANI

Olivia, this is your skin report



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Welcome to The V Clinic: Elite Nutrition, Precision Results

At The V Clinic, we redefine health and wellness with a data-driven, scientific approach designed for discerning clients who value excellence and results. Founded by Dr. Boshra Varastegani, a PhD-qualified nutrition scientist, we specialise in **Nutrigenetics**—the art of crafting **personally curated nutrition plans** based on your unique DNA and biometric data. By analyzing your genetic and physiological profile, we deliver precise, actionable insights tailored to your specific needs.

Our elite service guarantees **total discretion**, ensuring an exceptional experience that meets the highest standards of professionalism and confidentiality.

About Dr. Boshra Varastegani
Dr. Varastegani brings an unparalleled level of expertise to the field of nutrition, renowned for her academic and professional achievements:

- **PhD in Nutrition**, the pinnacle of academic excellence in the field.
- **European Commission collaborator** leading groundbreaking research on large-scale food security and sustainability.
- **Editor-in-Chief** of the Journal of Food Innovation, Nutrition, and Environmental Sciences.
- **Author** of multiple peer-reviewed publications, with her work cited on hundreds of occasions by researchers worldwide.
- Trusted by high-profile clients, including leaders in business and diplomacy, for her scientific expertise and innovative approach.

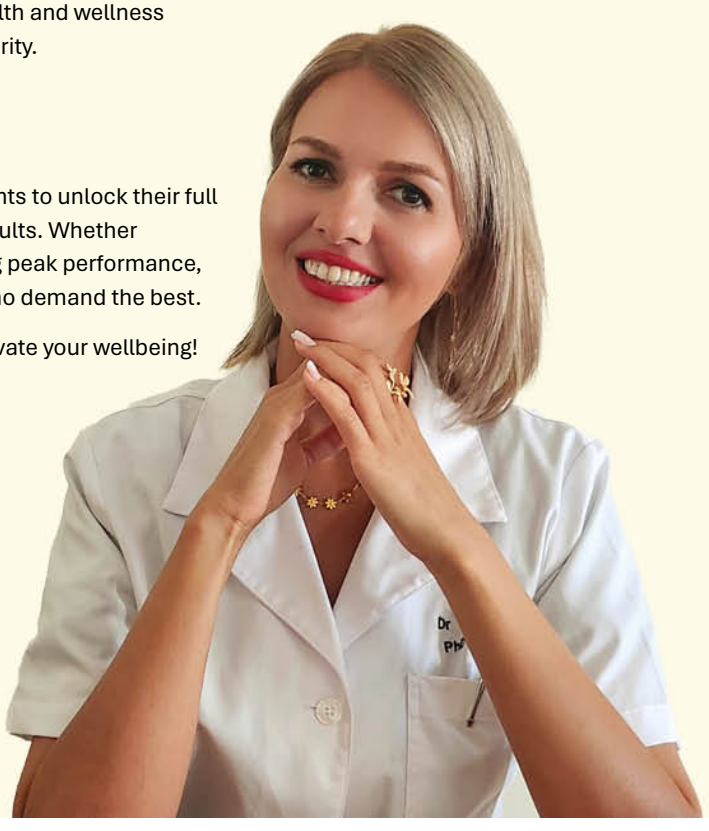
- Dr Varastegani's unwavering commitment to advancing health and wellness through science positions her as a globally respected authority.

The V Clinic: Your Exclusive Wellness Partner

The V Clinic offers **bespoke nutrigenetic plans** that empower clients to unlock their full potential, optimise health and achieve tangible, transformative results. Whether managing chronic conditions, enhancing energy levels, or pursuing peak performance, our personalized strategies are meticulously designed for those who demand the best.

Discover a revolutionary path to wellness with The V Clinic and elevate your wellbeing!

Dr Varastegani



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1. Introduction

Unlock Your Best Health with The V Clinic

The V Clinic is a cutting-edge nutritional consultancy that leverages advanced blood and DNA analysis to create personalized, data-driven nutrition plans. These plans are tailored to each client's unique genetic profile and individual health needs.

Led by internationally recognised scientist and nutrition expert Dr. Boshra Varastegani (PhD), The V Clinic has been delivering exceptional, customized care and guidance to clients worldwide.

In this report, after a thorough analysis of your DNA, you will receive detailed information about the relationship between your genes and your skin.

Thanks to your DNA sequencing, you will learn about your skin's response to different factors, such as oxidation, premature ageing, redness, freckles, varicose veins, cellulite, and more. The report you have in your hands will help you, for example, to use the most suitable creams, according to your skin type, thereby optimising the results of your dermatological treatments.

As is common in our reports, on the first pages you will find a summary, featuring icons, of each of the values analysed, which we cover in more detail in later pages.

We remind you that any changes you make to your health or skin treatments should be reviewed and approved by health professionals. Any questions you have about any genetic test should be answered by medical personnel who are experts in genetic diagnosis, or by dermatologists. On our website we feature the services of these types of professionals.

The information provided in this report is valid only for research, information and educational uses. It is not valid for clinical or diagnostic use.

1.1. Questions and answers

Should I make drastic changes in light of these test results?

No. Any changes you make regarding your health and skin care should be reviewed and approved by health professionals, such as geneticists or doctors. Any questions you have about any genetic test should be answered by experts in genetic diagnosis, or a dermatologist.

Does it all depend on my genes?

No. The body responds to many factors. Our genes are certainly an important

parameter, but lifestyle, exercise, diet, and many other circumstances also affect the body. Knowing yourself well will help you to treat your body in the most appropriate way. And this is what these tests are all about: more knowledge.

Are all the genes analysed listed in the sections?

We include only a sample of the genes we analyse. Some of the sections are defined by the analysis of genes that we do not show in the report. Our algorithms combine all your genotypes from the markers analysed.

What is this report based on?

This test is based on different genetic studies that have been internationally verified and accepted by the scientific community. There are some databases where studies are published only when there exists a certain level of consensus. Our genetic tests are carried out by applying these studies to our clients' genotypes. In each section you will see some of the studies on which they are based. There are sections where more studies are used than those listed.

The information provided in this report is valid only for research, information and educational uses. It is not valid for clinical or diagnostic use.

2. Summary

Premature aging

- Glycation
- Crow's feet
- Sun sensitivity
- Photoaging
- Facial aging
- Antioxidant capacity

Pathologies

- Melanoma
- Psoriasis
- Human Papillomavirus type Beta
- Basal carcinoma
- Vitiligo
- Primary varicose veins

Aesthetics

- Cellulite
- Tanning Ease
- Pigment spots on the arms

Hair

- Alopecia Areata

Vitamins and minerals

- Vitamin A - Retinol Levels
- Vitamin B6 Levels
- Vitamin B12 Levels
- Vitamin D Levels
- Calcium Levels
- Magnesium Levels
- Zinc Levels
- Vitamin A - Carotenoid Levels
- Vitamin B9 Levels
- Vitamin C Levels
- Vitamin K Levels
- Iron Levels
- Omega-6 Levels

Others

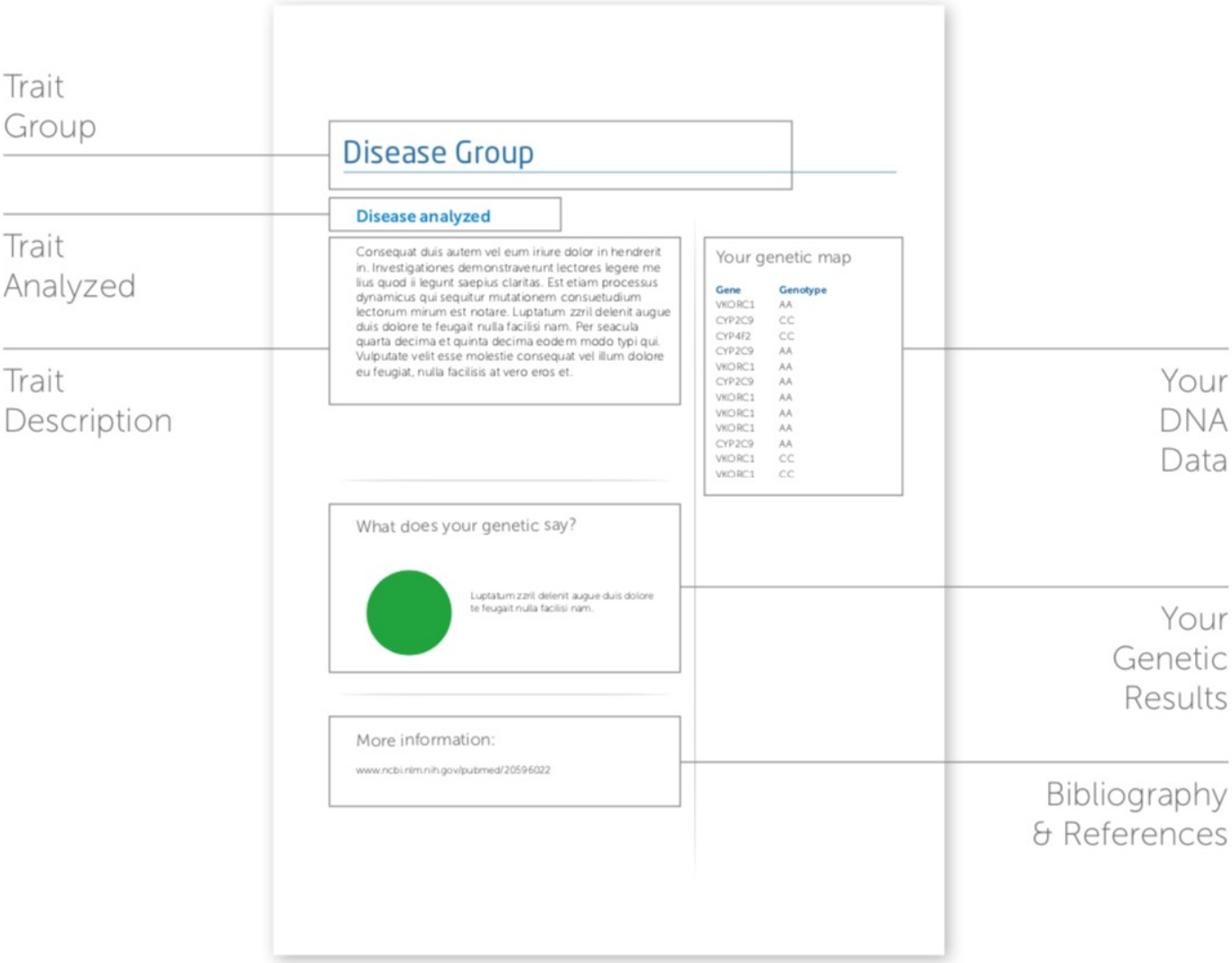
- DHEA Levels
- Use of deodorant
- Earwax type

Caption:

- Your analyzed genotype is favorable.
- Your analyzed genotype is a little favorable.
- Your analyzed genotype doesn't particularly affect you.
- Your analyzed genotype is a little unfavorable.
- Your analyzed genotype is unfavorable.

3. Genetic Results

3.1. How to understand your report?



3.2. Your genetic results

Premature aging

Glycation

Glucose is the main energy source for our body, but if not properly metabolized in the skin, it can bind to collagen and elastin fibers and alter their structure and function. This process, called glycation, is involved in skin aging and damages its ability to regenerate and self-repair. Glycated collagen fibers become rigid, less elastic, and with a reduced capacity for regeneration, causing wrinkles, dryness, skin thickening, and loss of firmness. Additionally, this process increases with age and in combination with UV ray exposure. At the genetic level, it has been found that mutations in the APOE gene may indicate a greater predisposition to glycation and, therefore, a higher risk of premature skin aging.

Your genetic map

Gene	Genotype
APOE	CC
APOE	TC

What do your genetics tell us?

According to your genotype, you are predisposed to glycation. Other genetic and clinical factors may influence this. Controlling blood glucose levels, LDL cholesterol, and triglycerides through an appropriate diet can help reduce glycation and its effects. On a cosmetic level, coenzyme Q10, through its antioxidant capacity, can help prevent and mitigate the effects of glycation. Other components, such as carnosine, niacinamide, silybin, and alpha-lipoic acid, may also have positive effects.

More information:

https://pubmed.ncbi.nlm.nih.gov/31677348/

Premature aging

Photoaging

Photoaging is the gradual and irreversible deterioration of collagen, elastin, and other fibers that give structure to the skin and keep it smooth. It is caused by age and is accelerated by prolonged and daily exposure to UV radiation, which causes DNA damage, oxidative stress, and alterations in the normal architecture of the skin's connective tissue, impairing its function. The consequences of photoaging include uneven pigmentation, fine wrinkles, skin sagging, freckles, age spots, spider veins on the face, and rough skin. Numerous studies suggest that this feature has a genetic basis, and variations in the FBXO40 gene have been associated with an increased predisposition to facial photoaging, visible in factors such as pigmentation irregularities, wrinkles, and skin laxity, among others.

Your genetic map

Gene	Genotype
Intergenic	GG
Intergenic	TC
FBXO40	AA

What do your genetics tell us?

According to this study, you are more predisposed than most of the population to develop this characteristic. Other genetic and clinical factors may influence. To maintain healthy, youthful skin, it is important to maximize sun protection, which, as we have seen, is the main factor in accelerating photoaging. The intake of fruits and vegetables rich in antioxidants is another fundamental tool for prevention, and creams with arbutin, kojic acid, L-ascorbic acid, licorice extract, retinol, or vitamin B3 can help slow the signs of premature facial photoaging.

More information:

www.ncbi.nlm.nih.gov/pubmed/23223146

Premature aging

Crow's feet

Crow's feet are wrinkles that settle around the outer corner of the eyes, caused by repetitive facial expressions such as squinting, smiling, or laughing, due to the continuous contraction of the orbicular muscle, which pinches the skin during contraction. However, they are considered crow's feet when the wrinkle is visible even when the muscle is not contracting, that is, when no facial expression is being made. They are considered a common sign of aging and can make a person appear older than their actual age. At the genetic level, a specific variant of the AHR gene has been identified as a predisposing factor for women to have crow's feet.

Your genetic map

Gene	Genotype
AHR	GG

What do your genetics tell us?

According to your genotype, you do not have a special predisposition to develop crow's feet. Other genetic and clinical factors may influence.

More information:

https://www.jdsjournal.com/article/S0923-1811(16)31087-8/fulltext

Premature aging

Facial aging

Multiple factors influence the general facial aging process, including signs such as skin sagging, wrinkles, or changes in facial structure. These factors, among others, influence the physical appearance showing an age that does not always correspond with the chronological one, which can affect a significant part of the population. Environmental factors play an important role in the facial aging process and factors such as sun exposure, smoking, or an inadequate diet are just some of those that can accelerate the skin aging process. But, in addition, this process is highly related to genetics, and can affect, for example, collagen production, skin thickness, and facial bone structure. Specifically, recent studies have identified that specific mutations in the IRF4 and HERC2 genes, among others, can mark a greater or lesser predisposition to show signs of facial aging.

Your genetic map

Gene	Genotype
IRF4	TC
HERC2	GG
TYR	AG
RALY	GG

What do your genetics tell us?

According to this study, you are more predisposed than most of the population to develop this characteristic. Other genetic and clinical factors may influence. It has been shown that up to 60% of facial aging can be attributed to genetic factors. When this poses a self-esteem problem, there are various treatments available to mitigate the effects of aging, always under the supervision of a dermatologist or qualified professional.

More information:

https://pubmed.ncbi.nlm.nih.gov/27133870/

Premature aging

Sun sensitivity

Sun sensitivity, also known as photosensitivity, is a condition in which the skin reacts abnormally to exposure to sunlight or other sources of ultraviolet (UV) radiation. Its symptoms may include skin redness, itching, rashes, and blisters. Photosensitivity can be caused by various factors, such as having fair, inflamed, or developing skin during childhood; suffering from diseases such as lupus, porphyria, and some types of skin cancer; or medications such as antibiotics, antihistamines, and non-steroidal anti-inflammatory drugs (NSAIDs). All these factors can make the skin more sensitive to the sun, but genetics also play an important role in this characteristic, as demonstrated by the SLC45A2 gene, which has been correlated with a predisposition to increased sun sensitivity.

Your genetic map

Gene	Genotype
SLC45A2	GG

What do your genetics tell us?

According to this study, you have a lower predisposition than most of the population to develop this characteristic. Other genetic and clinical factors may influence.

More information:

https://pubmed.ncbi.nlm.nih.gov/25963972/

Premature aging

Antioxidant capacity

Free radicals are molecules that are produced by 2 pathways: naturally in the body, and by external factors such as diet, pollution, or smoking, among others. We could describe them as a kind of waste, which oxidizes cells and causes aging. To counteract this effect, there are antioxidants, which are vital substances to protect our cells from such damage. Like free radicals, antioxidants are also obtained by 2 pathways: naturally in the body and through food. The skin is an organ especially vulnerable to damage caused by free radicals, which can cause collagen breakdown, leading to premature aging. Genetics is an important influencing factor and some studies have associated mutations in the CAT gene, which produces the enzyme catalase, with a predisposition to a lower antioxidant capacity in the skin.

Your genetic map

Gene	Genotype
CAT	TT

What do your genetics tell us?

According to your genotype, you are predisposed to having reduced dermal antioxidant capacity. Other genetic and clinical factors may influence. Vitamin C, vitamin E, beta-carotene, selenium, or polyphenols, among others, are antioxidant substances that can help protect the skin by neutralizing free radicals. There is also a variety of topical skin care products with ingredients such as certain vitamins, green tea extract, resveratrol, or catalase, which can also help protect the skin from oxidative damage.

More information:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4352505/

Pathologies

Melanoma

Melanoma is a type of cancer that develops from cells known as melanocytes. Melanomas typically occur on the skin, and exceptionally in the mouth, intestines, or eyes. In women, they are more common on the legs, while in men they are more common on the back. The exact cause of melanomas is not clear, but exposure to ultraviolet radiation from sunlight or tanning lamps seems to increase the risk. Sometimes they develop from a mole and changes such as increased size, irregular edges, color change, itching or skin erosion can be an alarm that allows early detection, which increases the chances of successful treatment. Genetics is also an influencing factor and certain mutations in genes such as ASIP and NCOA6 have been correlated with the predisposition to suffer from melanoma.

Your genetic map

Gene	Genotype
Intergenic	TC
Intron	AG
TYRP1	TC
SLC45A2	GG
NCOA6	AG

What do your genetics tell us?

According to your genotype, you do not have a special predisposition to develop melanoma. Other genetic and clinical factors may influence.

More information:

https://www.ncbi.nlm.nih.gov/pubmed/22628150

Pathologies

Basal carcinoma

Basal cell carcinoma (BCC) is one of the most common types of skin cancer and develops in the basal cells, which are located in the deepest layer of the epidermis. BCC typically presents as a small pearly bump on the skin with a waxy and rolled edge, although it can also appear as a flat, scaly, and reddish spot. This type of cancer grows slowly and rarely spreads to other parts of the body, but it can cause significant damage to surrounding tissues if not treated. Its main cause is exposure to ultraviolet (UV) radiation from the sun or tanning beds, and people with fair skin and a family history of skin cancer are at higher risk. At the genetic level, it has been shown that mutations in the genes MYCN, FLACC1, LOC10798695, and GATA3, among others, are associated with a higher predisposition to basal cell carcinoma.

Your genetic map

Gene	Genotype
Intergenic	TT
FLACC1	GG
LOC1079869	CC
Intergenic	GG
PADI6	GG
RHOU	TT
CLPTM1L	CC
KRT5	CC
Intergenic	AG
Intergenic	TG
TP53	TT
TGM3	AG
RGS22	AA

What do your genetics tell us?

According to this study, you have a predisposition similar to most of the population. Other genetic and clinical factors can also influence. Possible treatments for BCC include surgical removal, radiotherapy, and topical medications. Using one option or another should be proposed by the specialist doctor and usually depends mainly on the size, location, and type of lesion. To prevent it, it is important to minimize sun exposure, protect the skin from UV radiation, and periodic skin exams performed by a health professional.

More information:

www.ncbi.nlm.nih.gov/pubmed/25855136

Pathologies

Psoriasis

During normal cell renewal, the process by which skin cells grow from the deeper layers and rise to the surface, replacing dead cells, takes about a month. In the case of psoriasis, due to a disproportionate immune response, this process occurs in just a few days, causing new cells to rise too quickly and accumulate on the surface, causing scaling and inflammation (pain, swelling, and redness). Factors that can cause worsening of psoriasis are mainly infections, stress or psychological tension, changes in the weather that dry out the skin, exposure to UV light, or certain medications. However, it has been proven that specific variants in the IL12B, IL23R, IL13, and TNIP genes, among others, have been associated with a predisposition to suffer from psoriasis.

What do your genetics tell us?

According to this study, you have a higher predisposition than most of the population. Other genetic and clinical factors may also influence. Psoriasis should be evaluated by a dermatologist, who will decide, based on the extent of the lesions and the characteristics of the patient, the most appropriate treatment: topical or systemic. There are multiple options for topical treatment, and in addition, phototherapy, photochemotherapy, or PUVA therapy can be used. Among the systemic treatments are retinoids, immunosuppressants, or cytostatics. A physician will indicate the best option for each patient.

More information:

www.ncbi.nlm.nih.gov/pubmed/25903422

Your genetic map

Gene	Genotype
TP63	AC
COG6	TC
LOC144817	TC
RUNX1	CC
CLIC6	GG
LOC1079861	TC
LOC285626	TT
Intergenic	GG
IL12B	TC
IFIH1	TT
Intergenic	AA
TNFAIP3	TC
Intergenic	AG
IL12B	GG
Intergenic	TG
NOS2	AG
IL13	GG
RIGI	TC
IL28RA	CC
QTRT1	AG
IL23R	TT
STAT2	GC
REV3L	CC
ETS1	TC
TRAF3IP2	AA

Pathologies

Vitiligo

Vitiligo is a skin disease that causes loss of pigmentation, resulting in white patches on the skin. It occurs when the cells that produce melanin, the pigment that gives color to the skin, are destroyed or stop functioning. It can affect any part of the body, but is more common on the face, hands, arms, feet, and genitals. The exact cause of vitiligo is unknown, but it is believed to be an autoimmune disorder in which the body's immune system attacks and destroys the melanocytes. Vitiligo can also be triggered by physical trauma, emotional stress, or exposure to chemicals, but genetics can also be an influencing factor in certain cases, as variations in the genes IFIH1, CD80, CLNK, BACH2, and FANCA, among others, have been found to be associated with a predisposition to vitiligo.

Your genetic map

Gene	Genotype
IFIH1	GG
CD80	AC
CLNK	TC
BACH2	CC
CASP7	CC
SLC1A2	AG
TYR	CC
IKZF4	AC
ATXN2	TA
HERC2	TC
FANCA	AG
TICAM1	TT
TOB2	AG

What do your genetics tell us?

According to this study, you have a higher predisposition than most of the population. Other genetic and clinical factors may also influence.

More information:

www.ncbi.nlm.nih.gov/pubmed/22561518

Pathologies

Human Papillomavirus type Beta

Human Papillomavirus Type Beta is a genus of this virus closely linked with the development of precancerous lesions and cancer in various areas of the body, including the skin. HPV type beta and some other genera of this virus are known for their ability to cause genital warts, but they have also been frequently associated with the formation of skin lesions, especially in regions of the skin with folds and/or that are warmer and prone to moisture, such as hands, feet, elbows, and knees. The lesions can vary in size and texture, but often present a rough surface. This virus is generally transmitted through direct "skin to skin" contact, which can occur during sexual contact or by touching contaminated objects. Regarding genetics, it has been shown that a specific mutation in the LOC10798414 gene can play a decisive role in the predisposition to suffer from HPV type beta.

Your genetic map

Gene	Genotype
LOC1079841	CC

What do your genetics tell us?

According to your genotype, you have a low predisposition to suffer from human papillomavirus type beta. Other genetic and clinical factors may influence.

More information:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4118903/

Pathologies

Primary varicose veins

Veins are a crucial part of the circulatory system, as they are responsible for carrying deoxygenated blood back to the heart from the organs, where oxygenated blood arrives through the arteries. Veins have a valve system that ensures the blood continues its path to the heart, preventing it from flowing back to the organs. Primary varicose veins, commonly known as varicose veins, are a condition in which veins, usually in the legs, enlarge, twist, and become inflamed due to faulty venous valves, preventing proper blood return to the heart, leading to blood accumulation and vein dilation. Age, sex, and lifestyle increase the risk of developing varicose veins, but genetics also play a role, as studies have shown associations between variations in the MCP1 and VEGFA genes and a predisposition to varicose veins.

Your genetic map

Gene	Genotype
MCP1	AA
VEGFA	GG

What do your genetics tell us?

According to your genotype, you do not have a special predisposition to suffer from primary varicose veins. Other genetic and clinical factors may influence.

More information:

https://pubmed.ncbi.nlm.nih.gov/28623996/

Aesthetics

Cellulite

Cellulite is a very common characteristic in women (affecting 80-90% of the female population), although it also affects men to a lesser extent, causing the appearance of bumps and dimples in the skin, resulting in a rough appearance, known as "orange peel skin," due to its similarity to the appearance of this fruit. It is motivated by an accumulation of subcutaneous fat and irregular fibrous tissue, which mainly affects the buttocks, hips, and thighs, although it can also be present in other parts of the body such as the abdomen or knees. The causes of cellulite are complex and are influenced, among many other factors, by hormones, the circulatory system, or weight changes. However, genetics is also an important influencing factor, and several genetic studies have identified variations in the HIF1A gene, among others, associated with a greater predisposition to present cellulite.

Your genetic map

Gene	Genotype
HIF1A	CC

What do your genetics tell us?

According to your genotype, you are predisposed to present cellulite. Other genetic and clinical factors may also influence. Cellulite is harmless and is not considered a disease, as its main implication is aesthetic. Maintaining a healthy weight, leading an active lifestyle, following a healthy diet, and staying hydrated can help prevent it. In addition, there are medical-aesthetic treatments and cosmetic products that can help improve this condition.

More information:

https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1468-3083.2009.03556.x

Aesthetics

Pigment spots on the arms

A pigmentary spot is a skin alteration due to the increase (hyperpigmentation) or decrease (hypopigmentation) of the normal skin color. Skin spots can be due to various factors, such as sun exposure, hormonal changes, age, and genetics, among other factors. Some common types of pigmentary spots are: age spots, also known as liver spots, usually caused by years of sun exposure; melasma, which causes brown or gray-brown spots on the face, often during pregnancy or with hormonal changes; post-inflammatory hyperpigmentation, due to inflammation or injury, such as acne or a cut; and freckles, mainly hereditary. As we have discussed, genetics is an important influencing factor and it has been confirmed that a variant of the BNC2 gene is related to a lower predisposition to suffer from pigmentary spots on the arms.

Your genetic map

Gene	Genotype
BNC2	TT

What do your genetics tell us?

According to your genotype, you have a low predisposition to develop pigmentary spots. Other genetic and clinical factors may influence.

More information:

https://www.jdsjournal.com/article/S0923-1811(16)31087-8/fulltext

Aesthetics

Tanning Ease

Tanning is a physiological response of the skin to the stimulus of ultraviolet (UV) radiation from sunlight, which increases the production of eumelanin, a type of melanin pigment that darkens the skin to protect it from damage. Tanning ability varies among individuals and can have both positive and negative effects on skin health. People who have more difficulty tanning are more prone to sunburns, sun spots, wrinkles, folate loss, and melanoma, while those who tan easily are at risk of vitamin D deficiency, as they may produce less of this vitamin as a result of sun exposure. Tanning ability is genetically determined and certain mutations in genes such as GRM5, TYR, and IRF4, among others, are related to greater or lesser tanning ability.

Your genetic map

Gene	Genotype
LOC1079843	TC
GRM5	AG
GAS8	TC
IRF4	TC
LOC1053748	CC
HERC2	GG
TYR	AG
ND	TT
DPEP1	AG
CDK10	GG
SLC45A2	AA
PPARGC1B	CC
CPNE7	TT
SLC45A2	CC
CPNE7	TC
AFG3L1P	CC
LOC41937	TT

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to develop this characteristic. Other genetic and clinical factors may influence. The greater or lesser ability to tan influences the possibility of suffering dermatological injuries due to sun exposure, however, using sunscreen is a basic habit that should always be carried out, to keep the skin in optimal conditions.

More information:

https://pubmed.ncbi.nlm.nih.gov/19340012/

Hair

Alopecia Areata

Alopecia areata is a condition characterized by causing round patches of hair loss in different areas of the body where there is hair, mainly the scalp, but also the eyelashes, armpits, genital region, and beard, but it can lead to total baldness. It affects men, women, and children, and is thought to be an autoimmune disease. Sometimes hair loss can occur after an illness, pregnancy, or trauma. Its treatment usually consists of corticosteroids and other medications, often for topical use. Some people with this condition have a family history and, although alopecia areata can be caused by various factors, genetics is one of them. In this regard, different genes related to this condition have been identified, such as ICOS, IL2, ULBP3, IL2RA, and IKZF4.

Your genetic map

Gene	Genotype
Intergenic	TC
Intergenic	GG
IL2RA	TC
LOC1027238	AG
IKZF4	TG
Intergenic	AG

What do your genetics tell us?

According to this study, you have a predisposition to suffer from this disease similar to the majority of the population. Other genetic and clinical factors may influence.

More information:

www.ncbi.nlm.nih.gov/pubmed/20596022

Vitamins and minerals

Vitamin A - Retinol Levels

Retinol is a provitamin of vitamin A, which performs a large number of functions in the body, such as growth, repair, and maintenance of tissues, specifically the skin and mucous membranes. A deficiency of this vitamin can cause dryness and flaking, as well as loss of skin brightness, which begins to wrinkle very quickly. In people with retinol deficiency, a burning sensation and itching on the skin occur. Retinol has also proven to be an excellent component in topical products, with significant improvements in all skin types, in terms of wrinkles, pigmentation, elasticity, firmness, and overall reduction of sun damage, although there is no scientific evidence of the relationship of genetics with these effects. Genetic factors do play an essential role in the levels of vitamin A circulation in the blood, as demonstrated by mutations in the TTR gene, among others.

Your genetic map

Gene	Genotype
TTR	AC
FFAR4	CC

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to have normal levels. Other genetic and clinical factors may influence.

More information:

www.ncbi.nlm.nih.gov/pubmed/21878437

Vitamins and minerals

Vitamin A - Carotenoid Levels

Carotenoids, also called tetraterpenoids, are provitamins of Vitamin A in the form of organic pigments of yellow, orange, and red colors, which protect the skin against photooxidative damage and are vital components of the human skin's antioxidant protection system. It has also been observed that they can be useful in the prevention and treatment of some photodermatoses, improving the function of the immune system, in addition to having an antioxidant effect. However, it is important to note that carotenoids can degrade due to factors such as solar radiation or some diseases, among other causes. In summary, various studies have demonstrated the positive impact of carotenoids on skin elasticity and hydration. At the genetic level, research has shown that mutations in the PKD1L2 gene, among others, are directly related to circulating levels of carotenoids.

Your genetic map

Gene	Genotype
PKD1L2	AG
PKD1L2	TG
ND	TG

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to have normal levels. Other genetic and clinical factors may influence. A diet rich in carotenoids, found in fruits and vegetables, mainly those of bright red or orange color, such as carrots, apricots, or red peppers, but also in spinach, watercress, tomatoes, or egg yolks, can be an effective strategy to reduce skin aging and achieve beneficial effects in the prevention and improvement of health and appearance of the skin.

More information:

www.ncbi.nlm.nih.gov/pubmed/19185284

Vitamins and minerals

Vitamin B6 Levels

Vitamin B6 (pyridoxine) is a water-soluble vitamin, which, among many other functions, influences the maintenance of strong and healthy hair. Vitamin B6, along with other B-complex vitamins, is vital for cellular metabolism and the production of red blood cells, which ensures adequate oxygenation of the scalp and the delivery of nutrients to the hair follicles. It also plays an important role in the synthesis of keratin, contributing to the formation of strong and shiny hair. By adopting a healthy and varied diet, which ensures the intake of vitamins and minerals, we can provide our hair with the essential elements it needs to stay in optimal condition. Genetics is shown as a factor influencing hair health as a mutation in the NBPF3 gene has been associated in numerous studies with the predisposition to have reduced levels of vitamin B6 in the blood.

Your genetic map

Gene	Genotype
NBPF3	TC

What do your genetics tell us?

Based on your genotype, you are predisposed to have adequate levels of vitamin B6. Other genetic and clinical factors may be relevant.

More information:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2667971/

Vitamins and minerals

Vitamin B9 Levels

Vitamin B9 (folate) is a water-soluble vitamin, which also has a synthetic version, called folic acid, and which, in addition to having an important function in DNA repair and synthesis, is commonly used as a supplement for dermatological purposes. Folic acid acts as a vital substance in the battle against unwanted wrinkles and skin aging, and it is analyzed whether folic acid deficiency can be related to certain skin problems such as acne, dermatitis, and premature aging. Although the conclusions are promising, the relationship is complex and may be influenced by several factors, including diet, other nutrients, and genetics. In this sense, mutations in the MTHFR gene have been identified associated with the tendency to have low levels of vitamin B9 in the blood.

Your genetic map

Gene	Genotype
MTHFR	AG
MTHFR	TT

What do your genetics tell us?

Based on your genotype, you are not predisposed to have a vitamin B9 deficiency. Other genetic and clinical factors may be relevant.

More information:

https://www.ncbi.nlm.nih.gov/pubmed/17115185

Vitamins and minerals

Vitamin B12 Levels

Vitamin B12 (cobalamin) is a water-soluble vitamin, which plays an important role in the health of our skin and hair. Some skin conditions, such as vitiligo, atopic dermatitis, or acne, treated in this report, may be indicative of a possible inadequate level of this vitamin. Among the skin manifestations of abnormal levels of cobalamin are hyperpigmentation, redness, inflammation, or skin rashes. A study conducted revealed that vitamin B12 has the ability to modulate the balance of bacteria present on our skin (skin microbiota). Additionally, a relationship has also been identified between blood levels of vitamin B12 and hair loss or premature graying. Various genetic studies have identified that the FUT2 gene is associated with inadequate levels of circulating vitamin B12 in women.

Your genetic map

Gene	Genotype
FUT2	AG

What do your genetics tell us?

According to this study, you have a standard predisposition to have normal levels. Other genetic and clinical factors may influence. Cobalamin is produced by bacteria and is naturally found in animal-derived foods: meat, fish, eggs, and dairy. Also, the topical use of vitamin B12 has emerged as a new therapeutic approach to address some skin conditions, due to its potent anti-radiation, anti-inflammatory, and anti-fibrosis effects.

More information:

https://www.ncbi.nlm.nih.gov/pubmed/18776911?dopt=Abstract

Vitamins and minerals

Vitamin C Levels

Vitamin C (ascorbic acid) is a water-soluble vitamin that has an important antioxidant effect in our body. Regarding skin care, it has been found to promote collagen formation, eliminate free radicals and toxic oxidants, protect against photoaging and damage caused by UV rays, hydrate dry skin, and prevent wrinkles. When we talk about the health of our hair, its function as an antioxidant is important, protecting cells from damage caused by free radicals, which are unstable molecules that can damage cells and accelerate the aging process. In the genetic field, it has been observed that the SLC23A1 gene may play a role in the health of the skin and hair, due to the effect of vitamin C in the body, and it has been proven that variations in this gene are related to the predisposition to have low levels of circulating vitamin C.

Your genetic map

Gene	Genotype
SLC23A1	CC

What do your genetics tell us?

Based on your genotype, you are not predisposed to have low levels of vitamin C. Other genetic and clinical factors may be relevant. The best way to maintain adequate levels of vitamin C is to eat a balanced diet that contains a variety of foods. Smokers and pregnant or breastfeeding women may need to increase their daily intake of vitamin C.

More information:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3605792/

Vitamins and minerals

Vitamin D Levels

Vitamin D (calcidiol or calcifediol) is a fat-soluble vitamin that is synthesized in the skin after exposure to sunlight. To achieve adequate levels of this vitamin, beneficial for the skin, we face the dichotomy of sunbathing to synthesize it, or not doing so to avoid the harmful effects of UV radiation. The answer may be that we can sunbathe in a controlled and completely safe manner. However, a qualified professional can prescribe supplementation that has proven effective. Regarding hair health, vitamin D plays a fundamental role by stimulating cell division in the hair follicles of the scalp, facilitating healthy, shiny, and strong hair. The predisposition to the correct synthesis of vitamin D is related to genetics, and several studies have identified variations in the GC gene related to vitamin D deficiency.

Your genetic map

Gene	Genotype
GC	TC
GC	TT

What do your genetics tell us?

Based on your genotype, you are not predisposed to vitamin D deficiency. Other genetic and clinical factors may be relevant.

More information:

https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0065716/

Vitamins and minerals

Vitamin K Levels

Vitamin K (phytomenadione) is a fat-soluble vitamin, which has potential therapeutic benefits in the treatment of skin conditions related to the alteration of the skin barrier, by improving its function and reducing the healing time of eruptions. Various findings suggest a promising role of vitamin K in efficient healing and skin health care. Also, the topical application of vitamin K has shown significant effects in healing compared to other treatments, evidenced in wound contraction and full recovery time. At the genetic level, variations of the VKORC1 gene have been described, which are associated with abnormally low levels of vitamin K, reinforcing its importance in maintaining healthy skin.

Your genetic map

Gene	Genotype
VKORC1	TC

What do your genetics tell us?

According to your genotype, your predisposition to have low levels of vitamin K is standard. Other genetic and clinical factors may influence.

More information:

https://www.ncbi.nlm.nih.gov/pubmed/19436136?dopt=Abstract

Vitamins and minerals

Calcium Levels

Calcium is a fundamental element in the development of bones and teeth, among many other functions, and it is also a factor influencing skin health. Calcium is distributed in the layers of the epidermis, according to an "epidermal calcium gradient", which, in healthy epidermis, is found in higher concentrations in the outer layers, such as the corneal layer and the granular layer. This gradient helps maintain skin integrity, prevents dehydration, and protects against environmental damage. When the calcium gradient is altered, the skin barrier may weaken and lead to skin problems, such as dryness, itching, and irritation. Additionally, calcium is recognized for promoting healthy hair growth and preventing premature graying. Regarding genetics, studies show that mutations in the CYP24A1 and CASR genes, among others, are related to blood calcium levels.

Your genetic map

Gene	Genotype
CASR	GG
DGKD	GG
GCKR	TC
LINC00709	TC
CARS1	AG
LOC1053701	AG
CYP24A1	AA
WDR81	CC

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to have normal levels. Other genetic and clinical factors may influence.

More information:

www.ncbi.nlm.nih.gov/pubmed/24068962

Vitamins and minerals

Iron Levels

Iron is an essential mineral for many functions of our body, including its contribution to hair health. Hair loss, both in premature patterns and in premenopause, can be related to low ferritin levels, and several studies have explored the relationship between iron deficiency and hair loss, linking this deficiency with conditions such as alopecia areata and androgenetic, telogen effluvium, and diffuse hair loss. However, other studies draw different conclusions, so a direct correlation between iron deficiency and poor hair health cannot be established. At the genetic level, it has been proven that variations in the TF gene, among others, affect the levels of circulating iron in the female biological sex.

Your genetic map

Gene	Genotype
TMPRSS6	AA
TF	AG

What do your genetics tell us?

According to your genotype, you are predisposed to having low iron levels. Other genetic and clinical factors may influence. The recommended amounts of iron can be obtained by consuming a variety of foods, such as lean meats, seafood, poultry, cereals, some legumes, spinach, nuts and other nuts, and seeds, such as chia.

More information:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5839608/

Vitamins and minerals

Magnesium Levels

Magnesium is an essential mineral in human nutrition, very important for many processes carried out by the body, and is also essential for skin health and the maintenance of the skin barrier, which is the outer surface of the skin, and includes the stratum corneum, the outermost layer of the epidermis. It has been shown that magnesium has anti-inflammatory effects on the skin, which can help reduce redness and inflammation associated with skin conditions such as acne and rosacea. Some studies suggest that topical application of magnesium can help relieve eczema and psoriasis. Magnesium is also key for healthy hair, strengthening it and giving it vitality. From a genetic standpoint, interesting associations have been revealed with mutations in the MUC1 and SHROOM3 genes, among others, which influence the predisposition to have altered levels of magnesium in the blood.

Your genetic map

Gene	Genotype
MUC1	TC
SHROOM3	GG
Intergenic	AA
LOC1019283	TT
LOC1001294	GG
MECOM	AG

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to have normal levels. Other genetic and clinical factors may influence.

More information:

www.ncbi.nlm.nih.gov/pubmed/20700443

Vitamins and minerals

Omega-6 Levels

Omega-6 are essential fatty acids key to skin health and the control of skin conditions. A balanced diet or the administration of omega-6 fatty acid supplements can improve skin health, as it produces anti-inflammatory molecules, such as PGE1 and 15-HETrE, which reduce inflammation from dermatitis, psoriasis, or acne. Additionally, omega-6 strengthens the skin barrier against the sun and wind, maintaining hydration and flexibility. It also hydrates the skin, reduces redness, and promotes healing. On the other hand, an unbalanced diet can cause hair thinning, dry skin, dandruff, and brittle nails. From a genetic point of view, it has been found that mutations in the PDXDC1 gene, among others, are related to the predisposition to present abnormal levels of omega-6.

Your genetic map

Gene	Genotype
PDXDC1	AA
TMEM258	TC
IL23R	TT
Intergenic	GG
FADS1	TC
FADS2	CC
PDXDC1	GG
Intergenic	CC
FADS1	TT
PDXDC1	AG
TMEM39A	CC
PDXDC1	GC
ELOVL2	CC

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to have normal levels. Other genetic and clinical factors may influence. We can find a good source of omega-6 in multiple foods, mainly nuts, cereals, vegetable oils, avocado, or eggs. Some oils rich in omega-6, such as flaxseed oil, can be found in topical products that can help balance sebum production in the skin and reduce the appearance of acne outbreaks.

More information:

www.ncbi.nlm.nih.gov/pubmed/24823311

Vitamins and minerals

Zinc Levels

Zinc is a trace element with multiple benefits for the health of the skin and hair. In the field of wound healing, zinc has shown positive effects by reducing inflammation and promoting wound healing. Additionally, it helps protect skin cells against the harmful effects of UVA radiation and has antibacterial and anti-inflammatory properties, making it an ally in the treatment of conditions such as melasma, acne, and rosacea. Zinc also plays an essential role in hair health and, along with other nutrients, contributes to maintaining healthy and strong hair, and preventing premature graying. Conversely, a deficiency of this trace element has been associated with alopecia areata and female pattern hair loss. At the genetic level, multiple studies link mutations in the CA1 gene, among others, with blood zinc levels.

Your genetic map

Gene	Genotype
CA1	AG
ND	TT
PPCDC	TT
NBDY	TC

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to have normal levels. Other genetic and clinical factors may influence.

More information:

https://www.ncbi.nlm.nih.gov/pubmed/23720494

Others

DHEA Levels

Dehydroepiandrosterone (DHEA) is an endogenous prohormone naturally secreted by the adrenal glands. Natural DHEA levels peak in early adulthood and decline with age. DHEA appears to have a beneficial impact on the skin because it increases sebum production, which helps maintain hydration and flexibility of the skin, improving its appearance and texture. Additionally, it may exert an anti-aging effect on the skin by stimulating collagen biosynthesis, improving the structural organization of the dermis. These combined effects contribute to the improvement of skin elasticity and firmness, reducing the appearance of fine lines and wrinkles commonly associated with skin aging. At the genetic level, studies show that mutations in the intergenic zone ZKSCAN5 and other genes are related to blood DHEA levels.

Your genetic map

Gene	Genotype
ZKSCAN5	CC
Intergenic	GG
Intergenic	AA
Intergenic	CC
LOC1079842	TT
TRIM4	GG
Intergenic	CG
ARPC1A	CC

What do your genetics tell us?

According to this study, you have a predisposition similar to the majority of the population to have normal levels. Other genetic and clinical factors may influence.

More information:

www.ncbi.nlm.nih.gov/pubmed/21533175

Others

Earwax type

Earwax is a waxy substance of gray, orange, red, or yellowish color formed by a liquid secreted in the external auditory canal. Its natural function is to protect the skin of the auditory canal, aid in its cleaning and lubrication, and provide protection against bacteria, fungi, insects, and water. From a medical point of view, it is good to have a little earwax in the ear, and excess normally drains by itself and does not cause problems. In some cases, it may accumulate causing a blockage of the auditory canal that can affect hearing. Genetics influences our type of earwax, and specifically, a certain mutation in the ABCC11 gene has been correlated with the production of a wetter or drier type of earwax.

Your genetic map

Gene	Genotype
ABCC11	CC

What do your genetics tell us?

According to your genotype, you are predisposed to produce dry earwax. Other genetic and clinical factors may influence. Excessive or improper cleaning of the ear with swabs or other tools can push the earwax into the ear canal and cause a blockage or other problems, such as ringing or vertigo. Sometimes, to remove very compact earwax, the help of a qualified health professional is necessary.

More information:

https://www.ncbi.nlm.nih.gov/pubmed/18037328?dopt=Abstract

Others

Use of deodorant

The use of deodorant has a cultural component, but genetics is an important influencing factor in the frequency of use of this cosmetic product. The ABCC11 gene plays a crucial role in determining the activity of the apocrine glands, which are responsible for the production of secretions in areas such as the armpits, influencing the composition and odor of sweat, and in turn determining the effectiveness of the deodorant. As each individual has a unique skin chemistry, factors such as dermal sensitivity or personal preferences influence when selecting the format of a deodorant (roll-on, stick, or spray) or its composition (natural or chemical ingredients, antibacterial agents or soothing agents, with or without fragrance, etc). At the genetic level, it has been demonstrated that a specific mutation in the ABCC11 gene can significantly influence the frequency of use of deodorants.

Your genetic map

Gene	Genotype
ABCC11	CC

What do your genetics tell us?

According to your genotype, your predisposition is to habitually use deodorant. Other genetic and clinical factors may influence.

More information:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3674910/

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