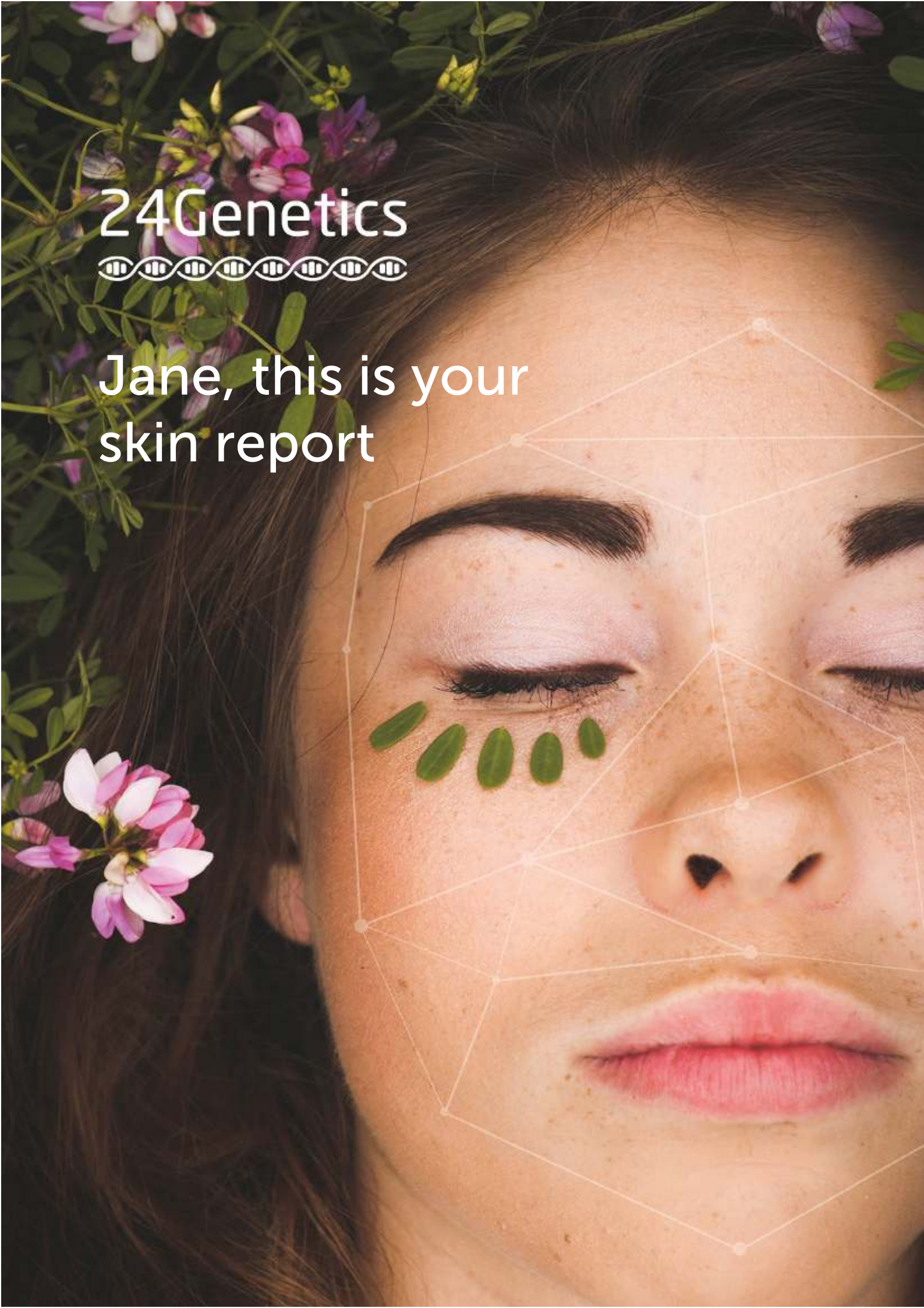


24Genetics



Jane, this is your
skin report





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1. Introduction

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

Thanks to your DNA sequencing, you will know the response of your skin to different factors, as oxidation response, premature aging, redness, freckles, varicose veins and even 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, optimizing the results of your dermatologic treatments.

As usual in our reports, in the first pages you will find an iconographic summary of each of the analyzed values, which we develop more broadly in later pages.

We remind you that any changes you want to make in your health or your skin treatments should be guided by health professionals. Any doubts you have about any genetic test should be contrasted with medical personnel who are experts in Genetic Diagnosis or Dermatologists. In our website we offer the services of this type of professionals.

1.1. Frequently Asked Questions

Should I make drastic changes in my health management with the data of this test?

No, any changes you want to make in your health and skin care should be guided by health professionals such as geneticists or doctors. Any question you have about any genetic test should be checked with an experts in Genetic Diagnosis or Dermatologist.

Does it all depend on my genes?

No, our body responds to a lot of conditions. Our genes are certainly an important parameter. Lifestyle, sport, food, and many other circumstances influence our body. Knowing yourself well clearly help us to treat our body in the most appropriate way. And this is what this tests are about: more knowledge.

Are all the analyzed genes listed in the sections?

We include only a sample of the genes we analyze, some of the sections are defined by the analysis of some more genes that we did not show in the report. Our algorithms combine all your genotypes from the analyzed markers.

What is this report based on?

This test is based on different genetic studies internationally consolidated and accepted by the scientific community. There are some databases where studies are published only there is a certain level of consensus. Our genetic tests is done by applying these studies to our clients genotype. In each section you will see some of the studies on which it is 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

Skin care



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.

The sun and your skin



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.

Feed your skin



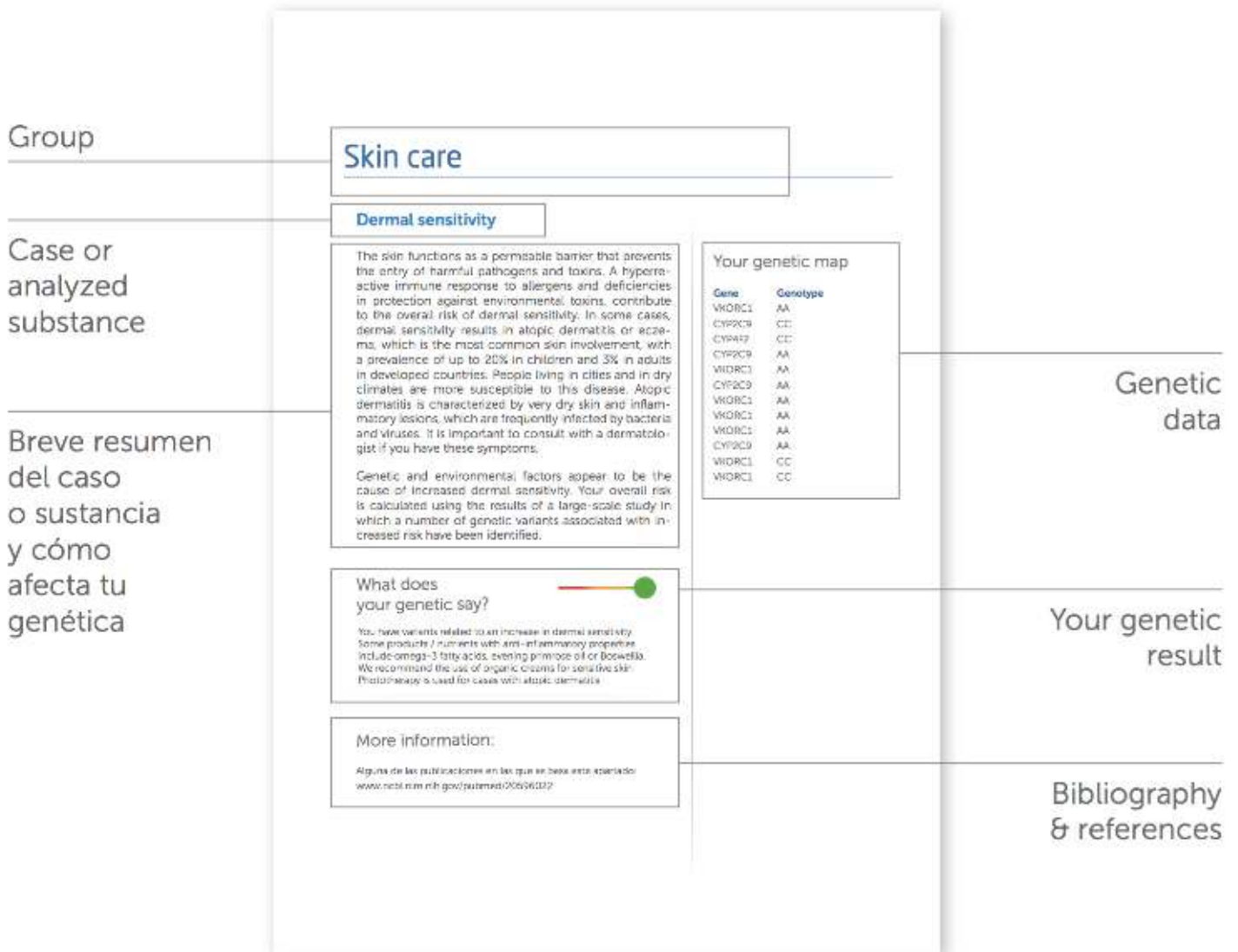
Caption:

- 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. What information is included in the results?



3.2. Your genetic results



Skin care

Dermal sensitivity

The skin functions as a permeable barrier that prevents the entry of harmful pathogens and toxins. A hyperreactive immune response to allergens and deficiencies in protection against environmental toxins, contribute to the overall risk of dermal sensitivity. In some cases, dermal sensitivity results in atopic dermatitis or eczema, which is the most common skin involvement, with a prevalence of up to 20% in children and 3% in adults in developed countries. People living in cities and in dry climates are more susceptible to this disease. Atopic dermatitis is characterized by very dry skin and inflammatory lesions, which are frequently infected by bacteria and viruses. It is important to consult with a dermatologist if you have these symptoms.

Genetic and environmental factors appear to be the cause of increased dermal sensitivity. Your overall risk is calculated using the results of a large-scale study in which a number of genetic variants associated with increased risk have been identified.

What does your genetic say? 

You have genetic variants associated with a normal dermal sensitivity.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4805319/>

Your genetic map

Gene	Genotype
IL18	CC
ADAD1	GG
EPHX1	TT



Skin care

Protection against pollution

Environmental pollution causes signs of aging on the skin, dark spots and inflammation. Two important enzymes (EPHX1 and NQO1) protect the skin and body from highly reactive external chemicals (epoxides and quinones).

The enzyme EPHX1 prevents the absorption of epoxides by converting them into less reactive, water-soluble forms. The enzyme NQO1 converts coenzyme Q10 (ubiquinone) to its reduced form, ubiquinol, which captures free radicals in the mitochondria and in the lipid membrane of the skin. This enzyme detoxifies quinones by converting them into reduced forms that can be excreted. On the skin, both enzymes play an important role in preventing the outer layer (the epidermis) from absorbing toxins.

Genetic variations in the EPHX1 gene may cause deficiency in its function and in the NQO1 gene decrease the production of ubiquinol. People with reduced levels of these two enzymes have significantly reduced skin protection against environmental toxins.

Your genetic map

Gene	Genotype
EPHX1	TT
NQO1	AG

What does your genetic say?

You have a greater risk of not eliminating correctly the external agents that can damage your skin. Consider taking Coenzyme Q10 supplements and antioxidants like Astaxanthin. It uses products containing antioxidants and coenzyme Q10 and a high sun protection factor. It also reduces exposure to contaminants. Cleanse your skin at night.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4868095/>



Skin care

Antioxidant capacity

A balance between free radicals and antioxidants is necessary for a proper physiological function, as well as for a healthy and youthful looking skin. In the skin, the increase of free radicals (called oxidative stress) causes a breakdown of collagen - a structural support of the skin - and alters the cycle of cell regeneration, causing premature aging (dull complexion with spots and non-uniform texture) proteins and lipids. Free radicals can affect all layers of the skin (hypodermis, dermis and epidermis, particularly vulnerable).

The antioxidant machinery present in the skin is started when there is oxidative stress, turning the harmful free radicals into less harmful products. Antioxidants are the natural defense of our body to minimize the damage caused by free radicals and can drastically reduce some signs of aging: reduce wrinkles and preserve the natural shine of the skin. Genetic variations encoding antioxidant enzymes (SOD2, EPHX1, CAT and NQO1) have been associated with an increased risk of oxidative stress or a reduction in antioxidant activity, which increases the aging of the skin.

Your genetic map

Gene	Genotype
CAT	TT
NQO1	AG
SOD2	AG
EPHX1	TT
CAT	CC

What does your genetic say?

The overall antioxidant capacity of your skin is average, some genetic variants are beneficial while others decrease the antioxidant power of your skin.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4085290/>



Skin care

Acne

Acne is the most common skin disease, very common among adolescents and young people, although it can also occur in adults. It affects the sebaceous glands, connected to the pores of the skin through a channel called follicle. These glands produce a fatty substance called sebum, which transports dead cells and sebum to the surface of the skin through the follicle. When a follicle is clogged, a pimple or pimple is created and the bacteria inside the follicle cause swelling.

The treatment focuses on healing the grains, preventing new ones from forming and preventing scarring. There are anti-acne medications that are applied directly to the skin and also to pills.

In addition to hormonal changes, stress, certain medications or the use of greasy makeup, there are hereditary factors that contribute to the onset of acne. Variations in different genes contribute to this skin disorder.

Your genetic map

Gene	Genotype
NQO1	AG
SELL	AG
TGFB2	AG
intergenic	GG

What does your genetic say?

Your genetic results predispose you to having acne.

More information:

<https://www.ncbi.nlm.nih.gov/pubmed/25061327>



Skin care

Inflammation of the skin

Skin inflammation occurs when skin cells have a hyperreactive response to allergens or toxins. Acute inflammation is a natural reaction to repair the skin after being exposed to environmental infections or toxins, and usually lasts a few days. While it is a useful short-term response, if inflammation continues it can play a negative role. When the inflammation is chronic it begins to be destructive and damages the skin.

There are numerous stimuli that induce chronic inflammation: UV rays, stress, toxins, tobacco, alcohol, pathogen infections, excess free radicals. While inflammation is the first line of defense of the skin, excessive inflammatory response causes premature aging of the skin.

Signs include dermal tenderness, redness, and irritation. Genetic variations in various proinflammatory and antiinflammatory substances genes are associated with an increased risk of chronic skin inflammation.

Your genetic map

Gene	Genotype
IL18	CC
IL6	AA
IFNG	AA
ADAD1	GG
IL10	GG
IL6	CC

What does your genetic say?

Your genetics predisposes you to a lower risk of having an excessive inflammatory response on the skin.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4805319/>



Skin care

Freckles

Freckles, also known as ephelides, are hyperpigmented spots that often appear on the face, neck, thorax, and arms. They are the result of an increase in the production of melanin in the skin. They usually appear in childhood, but decrease with age and darken with sun exposure.

Freckles are common among the Caucasian population and more frequent in light-skinned and red-haired people, with difficulty in tanning, increased likelihood of sunburn and sun spots (sun lenses), as well as the possibility of malignant melanoma and skin cancers in melanomas.

Freckles are associated with genetic variations in the IRF4 and MC1R genes. The MC1R gene contributes the most to red hair and fair skin. The number of parts depends on the number of variants of the MC1R gene.

Your genetic map

Gene	Genotype
intergenic	TC
intergenic	GG
IRF4	TT
TYR	AC
TYR	AG
MC1R	CC
MC1R	CC

What does your genetic say? 

Your risk of having freckles is medium.

More information:

<https://www.ncbi.nlm.nih.gov/pubmed/17952075>



Skin care

Varicose veins

Varicose veins are small veins that have a strong purple-blue color and extend into the skin as roots (known as spider veins). They affect more than a third of the world's population and can cause pain, itching, ulceration or venous thrombosis.

There are very simple measures to avoid the formation of varicose veins. The Mayo Clinic recommends exercising regularly, maintaining a healthy diet, avoiding standing or sitting for prolonged periods, and raising your legs. Women should also avoid wearing high-heeled shoes and crossing their legs.

People who have a family history of varicose veins are more likely to have them. Genetic variations in the MTHFR gene have been associated with an increased risk of developing varicose veins. Other non-genetic risk factors are obesity, age, sitting or standing for a long time and hormonal changes.

Your genetic map

Gene	Genotype
MTHFR	TT
MTHFR	AG

What does your genetic say?

Based on your genotype, the likelihood of you having varicose veins is medium.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2674155/>



Skin care

Psoriasis

Psoriasis is a chronic inflammatory disease that affects the skin and joints and causes desquamation and inflammation (pain, swelling and redness). During cell renewal, skin cells grow from the deepest layers and rise to the surface by constantly replacing dead cells, which takes about a month.

In the case of psoriasis, cell renewal occurs in only a few days, which causes new cells to rise too quickly and accumulate on the surface. It is a disorder of the immune system: T lymphocytes protect the body against infections and diseases, but in psoriasis are unduly activated. This causes swelling and rapid cell replacement in the skin.

Factors that can cause skin worsening with psoriasis include: infections, stress or psychological stress, changes in the weather that resolves the skin, exposure to UV light or certain medications. Variants in the analyzed genes HLA-C, IL12B, IL23R, IL13, MTHFR and TNIP1 have been associated with psoriasis. Genetic predisposition is the underlying cause of this disease.

Your genetic map

Gene	Genotype
HLA-C	CC
IL12B	GG
IL13	AA
IL23R	AA
MTHFR	AG
TNIP1	GG

What does your genetic say?

You have an average chance of developing psoriasis.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2745122/>



Skin care

Protection against glycation

Our body uses glucose as the main source of energy, but if it is not properly metabolized, it can bind to the collagen and elastin fibers and modify them both structurally and functionally. The resulting products are known as advanced glycation products (AGEs).

This process called glycation is involved in the aging of the skin and damages its ability to regenerate and self-repair. The collagen fibers that have undergone glycation become rigid, less elastic and have a lower capacity for regeneration, causing on the skin wrinkles, dryness, thickening of the skin and loss of firmness. AGEs increase with age and are more harmful in combination with exposure to UV rays.

Glycation can be reduced by controlling blood glucose levels, LDL cholesterol and triglycerides through a proper diet. Variations in the genes that determine how our body processes sugar can alter the normal functioning of energy metabolism and glucose levels. Scientists have identified variations in genes like GLO1 and AGER associated with an excess of AGE.

Your genetic map

Gene	Genotype
AGER	AA
AGER	AA
GLO1	AG

What does your genetic say?

Your genotype predisposes you to a high risk of glycation in the skin components. Niacinamide, carnosine and green tea reduce advanced glycation products on the skin. The use of creams with carnosine, niacinamide, silibinin and α -lipoic acid decreases the effects of advanced glycation products.

More information:

<https://www.ncbi.nlm.nih.gov/pubmed/23721855>



Skin care

Cellulitis

Cellulite is a common cosmetic problem for many women (80-90%) characterized by alterations in the surface of the skin that give an uneven appearance, unattractive, due to irregular fibrous tissue and accumulation of subcutaneous fat, resulting in known as "orange peel". It mainly affects the buttocks, hips and thighs, although it can also affect other parts of the body such as the abdomen.

Caucasian women are more likely to have cellulitis than Asian women, partly because of differences in diet. The causes are complex and involve hormonal factors, circulatory system, extracellular matrix, inflammation and substances produced by adipocytes, genetic predisposition and weight changes.

To minimize cellulite it is recommended to maintain a healthy weight, stay active, follow a healthy diet and be hydrated. Certain anti-cellulite creams, massages and medical-aesthetic treatments are beneficial to treat this disorder. Variations in the HIF1A gene, among others, have been associated with the risk of developing cellulite.

Your genetic map

Gene	Genotype
HIF1A	CC

What does your genetic say?

You do not have the protective genotype, so your predisposition to have cellulite is average. Caffeine is a very common component among anti-cellulite creams. Other ingredients are tetrahydroxypropyl ethylenediamide (THPE), retinol and / or red algae and glaucine. There are numerous formulations, consult with your beauty consultant.

More information:

<https://www.ncbi.nlm.nih.gov/pubmed/20059631>



The sun and your skin

Sensitivity to the sun

The skin can be sensitive to the sun for a variety of reasons: underdeveloped (childhood), inflamed (atopic dermatitis or acne), photosensitivity induced by drugs or dermatological treatments, or just plain skin. In these cases it is vital to use protection with a sun protection factor (SPF) suitable for each type of skin.

Sensitivity to the harmful effects of ultraviolet radiation is an inheritable aspect. Numerous large-scale studies have identified genetic variations that enhance sensitivity to the sun and the tendency we have to suffer from sunburn (erythema).

The genes related to skin pigmentation (ASIP, TYR, MC1R, and OCA2) and a low tanning ability are the ones that most influence the sensitivity of our skin to the sun. In addition, there is a strong association between DNA repair genes and the tendency to suffer from sunburn. These genes have no relation to the ease of tanning, so there is an underlying mechanism to burns that is independent of pigmentation.

Your genetic map

Gene	Genotype
NTM	GG
TYR	AG
ASIP	CC
LOC10537487	TC

What does your genetic say?

You have a high risk of skin sensitivity to the sun. Supplementation with omega-3 reduces the sensitivity of solar erythema. Apply a photoprotector suitable for your skin type, even a brown skin and have a good tan. Control any changes in color, size or texture of moles.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3690971/>



The sun and your skin

Ease tanning

Tan is the physiological response stimulated by ultraviolet (UV) radiation from the sun's rays. Exposure to UV rays increases the production of eumelanin, a type of melanin pigment that darkens the skin to protect it from damage. The ease of tanning varies between individuals and can have positive and negative effects on the health of the skin.

People with greater difficulty are more prone to burns and sun spots, wrinkles, folate loss and melanoma, while people who tan easily have a risk of vitamin D deficiency because they can produce less vitamin D in response to solar exposition.

The tanning ability of the skin is variable and is genetically determined. People with certain variants in genes related to pigmentation usually have clear eye color, clear skin and less tanning ability. Variations in the MC1R gene (melanin receptor) are the most determinant and are associated with red hair, freckles, increased sensitivity to the sun and less tan.

Your genetic map

Gene	Genotype
LOC10537406	TC
LOC10537487	TC
HERC2	GG
ASIP	CC
ASIP	GG
IRF4	TT
MC1R	CC
MC1R	CC
TYR	AC
TYR	AG
TYR	AG
MC1R	TC
ASIP	CC
EXOC2	TC

What does your genetic say?

Based on your genetic results, the response to the tanning of your skin is reduced, with which you have an increased risk of inflammation and burns. Omega-3 supplementation reduces the sensitivity of sunburn and helps reduce inflammation. Uses sun protection SPF 30+, creams with EGCG. It is recommended after sun with licocalcón A.

More information:

<https://www.ncbi.nlm.nih.gov/pubmed/23223146>



The sun and your skin

Sunspots

Facial sun spots (sun lentigos) are oval or round pigmented spots that measure 2 to 20 mm, brown, uniform and located in areas frequently exposed to the sun as face, arms or back of the hands. They are larger than freckles / ephelides, do not disappear in winter and are common in aged skin.

Solar lentigines are the result of local growth of melanin-producing cells in response to ultraviolet radiation. These spots are more frequent among the Caucasian and Asian population and in women, especially after 50 years. Although they are benign lesions that do not need medical treatment, they indicate that the sun exposure has been excessive. For esthetic reasons can be eliminated by different treatments, although the best form of prevention is the use of sunscreens and control the sun exposure.

Variations in MC1R and IRF4 genes have been associated with an increased risk of sunspots. There are numerous risk alleles in the MC1R (melanin receptor) gene.

Your genetic map

Gene	Genotype
IRF4	TT
MC1R	GG
MC1R	CC
MC1R	CC

What does your genetic say? 

You have a low risk of sun spots on your skin.

More information:

<https://www.ncbi.nlm.nih.gov/pubmed/25705849>



The sun and your skin

Photo-aging

Photo-aging is defined as the premature aging of the skin due to sun exposure. It is one of the harmful effects of prolonged and daily exposure to UV radiation, which causes DNA damage, oxidative stress and alterations in the normal architecture of the connective tissue of the skin, impairing its function.

Most premature aging is caused by exposure to the sun. Photoaging is responsible for uneven pigmentation, fine wrinkles, sagging skin, freckles, senile spots, spider veins on the face and rough skin. It is therefore crucial to protect the face and body against the negative effects of UVA and UVB rays.

Numerous studies suggest that photoaging has a genetic basis. Variations in the genes STXP5L and FBXO40 have been associated with an overall photoaging score that combines factors such as irregularities in pigmentation, wrinkles and sagging skin.

Your genetic map

Gene	Genotype
FBXO40	AG
STXP5L	GG
STXP5L	TC

What does your genetic say?

Your genotype indicates an increased risk of severe photoaging. Intake of fruits and vegetables rich in antioxidants is a fundamental tool in the prevention of aging. Creams with arbutin, kojic acid, L-ascorbic acid, licorice extract, retinol or vitamin B3 can help you curb the signs of premature photoaging.

More information:

<https://www.ncbi.nlm.nih.gov/pubmed/23223146>



Feed your skin

Vitamin B9 deficiency

Folate or folic acid (vitamin B9) works in conjunction with vitamins B6 and B12 in DNA synthesis and amino acid metabolism. Folate deficiency can increase the risk of skin damage such as psoriasis, venous thrombosis, oral atrophy, and dermal aging.

Increased intake of foods rich in folic acid or supplementation is beneficial for people with these disorders. Elevated levels of homocysteine, a marker of folate deficiency, cause aging of the skin by degradation of collagen, fibrillin, and elastin. Folic acid helps to improve the firmness of the skin and also reduce the signs of aging. Folate is obtained from food or synthetically as a supplement. The recommended daily allowance for adults is 400 µg (600 µg for pregnant women).

Several genetic variants in the MTHFR gene are associated with low plasma folate levels. In addition, these variants have also been associated with varicose veins.

Your genetic map

Gene	Genotype
MTRR	AG
MTHFR	TT
MTHFR	AG

What does your genetic say?

You have a high risk of high levels of homocysteine and low levels of vitamin B9. You should increase your intake of foods rich in vitamin B9 and / or take supplements containing folic acid. The external use of folate (along with creatine) helps to have a firmer skin since it improves the metabolism of the collagen.

More information:

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



Feed your skin

Vitamin B12 deficiency

Vitamin B12 (cobalamin) plays an important role in neurological function, it is essential for the formation of blood cells and for cellular DNA synthesis. Vitamin B12 and folic acid help lower homocysteine levels.

Elevated blood levels of this substance have been associated with cardiovascular diseases, psychiatric and skin disorders such as oral atrophy and hyperpigmentation. The recommended daily allowance for adults is 2.4 mg.

Older people, vegetarians and vegans have a higher risk of having low levels.

A genetic variant in the FUT2 gene has been associated with low levels of vitamin B12 in the blood.

Your genetic map

Gene	Genotype
FUT2	AG

What does your genetic say?



You have a higher risk of having low levels of vitamin B12 according to your genetic results. Increases consumption of foods rich in vitamin B12. Creams with vitamin B12 have been shown to be effective against eczema and atopic dermatitis.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2773275/>



Feed your skin

Vitamin C deficiency

Vitamin C (ascorbic acid) must ingest it in the diet because humans can not synthesize it. The dermal affections associated with vitamin C deficiency are: abnormal thickening of the outer layer of the skin, bruising easily, inflammation, deficiency in wound healing, dry and rough skin, hair loss and teeth.

The recommended daily amount of this vitamin for adults is 75-90 mg. The topical application of vitamin C is widely used to improve the signs of photoaging, including wrinkles and sagging skin. Vitamin C also promotes skin hydration and collagen production.

Many studies have reported that a genetic variant in the SLC23A1 gene is associated with reduced levels of vitamin C in the blood.

Your genetic map

Gene	Genotype
SLC23A1	CC

What does your genetic say? 

You present the genotype associated with normal levels of vitamin C.

More information:

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



Feed your skin

Vitamin D deficiency

Vitamin D is produced on the skin following exposure to ultraviolet light B (UVB rays). Excessive exposure to UV radiation accelerates skin aging, while vitamin D deficiency is associated with several skin diseases such as psoriasis, atopic dermatitis, vitiligo and ichthyosis. Enough vitamin D in the skin helps to minimize acne, increases skin elasticity and immunity, stimulates collagen production, improves brightness and decreases expression lines and dark spots.

The recommended daily allowance for adults is 15 µg (600 IU); however, the American Academy of Dermatology recommends 25 µg (1000 IU) for people who are at increased risk for deficiency.

People with dark skin, limited sun exposure, and those who use photoprotectors that block sunlight are at increased risk. Numerous studies have identified genetic variations in various genes that contribute to vitamin D deficiency.

Your genetic map

Gene	Genotype
GC	TG
CYP2R1	GG
VDR	TC
VDR	AA
VDR	AG

What does your genetic say?

You are predisposed to have low levels of vitamin D but the binding and transport of this vitamin are normal, so we recommend that you increase the consumption of foods rich in vitamin D (blue fish and fish liver oil) to reach some levels optimal.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3086761/>



Feed your skin

Vitamin E deficiency

Vitamin E refers to a group of eight antioxidant molecules, of which α -tocopherol is the most abundant in the body. Vitamin E strengthens the immune system and protects the skin from ultraviolet radiation and inflammation. Vitamin E deficiency can cause dermal ulcers and increase collagen loss.

The recommended daily allowance of vitamin E for adults is 15 mg. Many studies have shown that when vitamin E and vitamin C are taken together as an oral supplement, they reduce inflammation of the skin produced by UV radiation and decrease the skin's susceptibility to sunburn.

A genetic variant near the APOA5 gene has been associated with increased levels of plasma α -tocopherol (reduced risk of vitamin E deficiency).

Your genetic map

Gene	Genotype
near APOA5	CC

What does your genetic say?

Its genotype is not associated with increased levels of α -tocopherol. Increases consumption of foods rich in vitamin E. There are creams and serums with high concentrations of vitamin E. However, products that combine vitamin E, vitamin C, vitamin A and vitamin B3 are more effective.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2668002/>



Feed your skin

Omega 3 and omega 6 deficiency

Omega-3 and omega-6 fatty acids are important polyunsaturated fatty acids for the heart, brain, anti-inflammatory response and aging. Omega-3s (EPA and DHA) and omega-6 (AA) are essential fatty acids that must be obtained through diet. Deficiencies in these fatty acids can lead to various skin problems like dermatitis, acne, peeling, dry skin and psoriasis.

These disorders can be alleviated with omega fatty acid supplementation. Omega-3s protect against dermal damage induced by UV radiation and reduce inflammation.

In general, the diet contains enough omega-6 but insufficient omega-3, so an additional intake of omega-3 might be beneficial. A genetic variant of the FADS1 gene has been associated with low levels of omega-3 (EPA) and omega-6 (AA).

Your genetic map

Gene	Genotype
FADS1	TT

What does your genetic say?

You have a variant of the FADS1 gene that is associated with normal blood levels of omega-6 and omega-3.

More information:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4123862/>

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