

## Your summary results

#	Trait name	Your result
1	Glycation Genetic variations in susceptibility to skin glycation.	Low: Less likely to have increased skin glycation.
2	Atopic Dermatitis Genetic variations in susceptibility to atopic dermatitis.	Low: Less likely to have atopic dermatitis.
3	Psoriasis Genetic variations in susceptibility to psoriasis.	Moderate: Moderately likely to have psoriasis.
4	Rosacea Genetic variations in susceptibility to rosacea.	Low: Less likely to have rosacea.
5	Ephelides Or Freckles Genetic susceptibility to having freckles.	Low: Less likely to have freckles.
6	Lentigines Or Sun Spots Genetic susceptibility to developing sun spots.	Low: Less likely to have sun spots.
7	Tanning Response Genetic variations in tanning ability	Low: Less likely to get tanned easily.
8	Wrinkle And Collagen Degradation Genetic tendency for developing premature wrinkles.	Low: Less likely to have premature wrinkles.
9	Stretch Marks Or Striae Distensae Genetic tendency for developing stretch marks	High: Highly likely to have stretch marks.
10	Varicose Veins Genetic tendency for developing varicose veins.	Moderate: Moderately likely to have varicose veins.
11	Acne Genetic tendency for developing severe acne.	Low: Less likely to get acne.
12	Vitamin A Levels Genetic variations in vitamin A requirements	Normal: Maintain normal vitamin A intake
13	Vitamin B12 Levels Genetic variations in vitamin B12 requirements	Need more: Moderately increase vitamin B12 intake
14	Vitamin B6 Levels Genetic variations in vitamin B6 requirements	Normal: Maintain normal vitamin B6 intake
15	Vitamin B9 Levels Genetic variations in vitamin B9 requirements	Need more: Moderately increase vitamin B9 intake
16	Vitamin C Levels Genetic variations in vitamin C requirements	Need more: Moderately increase vitamin C intake
17	Vitamin D Levels Genetic variations in vitamin D requirements	Need more: Moderately increase vitamin D intake
18	Vitamin E Levels Genetic variations in vitamin E requirements	Need more: Significantly increase vitamin E intake
19	Vitamin K Levels Genetic variations in vitamin K requirements	Need more: Significantly increase vitamin K intake
20	Antioxidant Levels Genetic variations in antioxidant requirements	Normal: Maintain normal antioxidant intake

# acne

Low: Less likely to get acne.

Acne (acne vulgaris) occurs commonly among teenagers and young adults. Adults may also suffer from acne due to hormonal imbalances. Nearly 3 million people suffer from acne with 20% of incidences occurring in adults. This condition happens when dead skin cells and oil from skin clog hair follicles. Genetics, hormones and stress play a role in the risk of acne. People who suffer from acne may have whiteheads, blackheads, pus-filled large or tender bumps. People of certain genetic types have a higher risk of developing acne and may experience the following symptoms: uninflamed blackheads, pus-filled pimples or large, red, and tender bumps.

Genes Analyzed:

FST

TGFB2

## Recommendations

- You have a low genetic tendency to get acne.
- Though you have a low genetic tendency for acne, follow a good skin care regime to maintain a blemish free skin.

# atopic dermatitis

Low: Less likely to have atopic dermatitis.

Eczema (atopic dermatitis) is a common skin disease that affects a large percentage of the world's population. Eczema can be caused due to a variety of factors like genetics, environmental factors and abnormalities in immune responses. People of certain genetic types have a higher risk of being susceptible to eczema and may experience the following symptoms: skin inflammation, itching, redness and swelling.

Genes Analyzed:

LCE3E

OVOL1

C11orf30

CLEC16A

## Recommendations

- You have a low genetic tendency to have atopic dermatitis.
- Though you have a low genetic risk for atopic dermatitis, it is essential to meet the daily requirements of Vitamins A and D and zinc to prevent eczema.
- Consumption of pumpkin, sweet potato, carrots, mangoes, pink salmon, mackerel, sardines, fortified oils and breakfast cereals, mushrooms, egg yolk and cashews (10g) is recommended.

# cellulite

**Moderate: Moderately likely to have cellulite.**

Cellulite is the accumulation of subcutaneous fat and uneven fibrous tissue, leading to a bumpy appearance of skin. It occurs more commonly among women than men . Cellulite affects 85-98% of post-pubertal females of all races. Genetic predisposition, hormonal changes, gender, ethnicity, age and weight changes contribute to risk of developing cellulite. People of certain genetic types are at a higher risk of developing cellulite and may experience the following symptoms: uneven bumpy skin on the pelvic region, thighs and abdomen, characterized by padded or “orange peel” appearance.

Genes Analyzed:

HIF1A

## Recommendations

- You have a high genetic tendency to have cellulite.
- if you have excessive cellulite, consult a dermatologist.
- Here are a few recommendations to help you manage cellulite.
- poly-unsaturated fatty acids (PUFA), lean proteins and Vitamin C intake may reduce cellulite.
- Consume a low fat diet, salmon fish, sea food, low calorie fruits, citrus fruits, green leafy vegetables, mustard spinach, bell peppers, guavas, Kiwifruit (100g) and adequate quantities of water.
- Caffeine is also known to effective against cellulite.
- Apply home-made coffee scrubs and creams containing caffeine, theobromine and theophylline to decrease cellulite.
- Intense massage and skin smoothing procedures involving laser therapy, RF and IR therapy are known to eliminate and prevent cellulite under the supervision of a

dermatologist.

## ephelides or freckles

Low: Less likely to have freckles.

Freckles, also known as ephelides, are small brown spots that are commonly found in the face, neck and other sun exposed areas of the skin. Freckles are harmless and are more common among light skinned people. People of certain genetic types are at a higher risk of being susceptible to freckles and may experience the following symptoms: flat , circular spots of melanin(freckles) on the face.

Genes Analyzed:

MC1R2

MC1R1

MC1R

MC1R10

ASIP

ASIP2

IRF42

INTERGENIC

BNC2

IRF4

intergenic/ 6p25.3

TYR

TYR1

MC1R13

MC1R3

### Recommendations

- You have a low genetic tendency to have freckles.

- Though you have a low genetic risk for freckles, it is essential to meet the daily requirements of vitamins C and E to prevent the appearance of freckles.
- Include oranges, strawberries, Brussels sprouts (100g), soybean oil, sunflower seed kernels (1 tbsp), asparagus and wheat germ (1 ounce) in the diet.

## glycation

Low: Less likely to have increased skin glycation.

Glucose is the main source of energy for our body and when it is not broken down properly, it binds to collagen in the skin leading to abnormal structural and tissue impairment. This results in the production of advanced glycation products (AGEs) through a process called glycation, which is shown to be associated with accelerated aging. Glycation can lead to hardening of the skin and an inability of the skin to regenerate, leading to wrinkles and laxity. People of certain genetic types are at an increased risk of developing AGE than others and may experience the following symptoms: premature wrinkling, sagging, weak collagen and a lowered ability of the skin to rehabilitate.

Genes Analyzed:

AGER/RAGE

GLO11

AGER/RAGE1

GLO1

AGER/RAGE2

### Recommendations

- You have a low genetic tendency to have increased skin glycation.
- Though you have low genetic risk for skin glycation, it is essential to meet the daily requirements of omega-3 fatty acids to prevent skin glycation.
- Consumption of Atlantic salmon, anchovies (100-150g), mackerel, walnuts, pecan nuts, hazelnuts(30g) and flax seed powder (ALA) is recommended.

## lentiginos or sun spots

Low: Less likely to have sun spots.

Sun spots (Actinic Keratoses), also known as solar lentigines, are darkened spots on the skin, caused by prolonged exposure to UV radiations. They are caused by a local growth of pigment-producing skin cells in response to ultraviolet radiation. Solar lentigines are benign, but they do indicate excessive sun exposure, a risk factor for the development of skin cancer. Solar lentigines most commonly occur in older adults, particularly those who sunburn easily and fail to tan. Women are particularly susceptible. People of certain genetic types are at a higher risk of being susceptible to sun spots and may experience the following symptoms: red, small, scaly and rough or flat spots on areas of the body exposed to the sun like face, arms, back of the head and forearms.

Genes Analyzed:

MC1R1

MC1R 6

MC1R

MC1R 1

MC1R 4

IRF4

MC1R

MC1R 5

#### Recommendations

- You have a low genetic tendency to have sun spots.

## psoriasis

**Moderate: Moderately likely to have psoriasis.**

Psoriasis is a non-contagious chronic skin condition that produces plaques of thickened, scaling skin. It is one of the most baffling and persistent skin disorders. Generalized psoriasis is an inherited autoimmune disease. Men are generally more prone to the condition. Genetics play a major role in the development of psoriasis. People of certain genetic types have a higher risk of being susceptible to psoriasis and may experience the following symptoms: red patches of skin with white or silvery scales, cracked and dry skin, thick nails which may be ridged or pitted, swollen and stiff joints.

Genes Analyzed:

IL12B

IL23R

FUT2

MTHFR

IL13

FUBP1

TNFAIP3

### Recommendations

- You have a moderate genetic tendency to have psoriasis.
- If you have symptoms of psoriasis, you need to use specially medicated soaps and shampoos to manage the symptoms of psoriasis. Some shampoos have corticosteroids to control inflammation while others may have salicylic acid to remove the white scales.
- A dermatologist may also suggest formulas that include vitamin D, tar or retinoids.
- Follow a diet that is rich in Vitamins D, E and B12 and omega-3 fatty acids as they may reduce the symptoms and prevent the condition. Include sunflower oil, safflower oil (1 tbsp), almonds, hazelnuts (30g), walnuts, pink salmon, mackerel, sardines, fortified oils and breakfast cereals, mushrooms, egg yolk, hazelnuts (30g) mussels in your diet.
- In case of very severe psoriasis, light therapy or prescription drugs may be effective, under the supervision of a dermatologist.

## rosacea

**Low:** Less likely to have rosacea.

Rosacea is a common skin condition which affects the face and neck. The US National Rosacea association has stated that more than 16 million Americans suffer from this condition. This is a chronic condition which cannot be cured but it can be controlled. People with a lighter skin tone exhibit symptoms of Rosacea more distinctly though it can affect anybody. People of certain genetic types are at a higher risk of being susceptible to rosacea and may experience the following symptoms: facial flushing, redness, pimples, pustules and dilated blood vessels.

Genes Analyzed:

intergenic

intergenic1

#### Recommendations

- You have a low genetic tendency to have rosacea.

## stretch marks or striae distensae

**High:** Highly likely to have stretch marks.

Stretch marks, also known as striae distensae, typically appear as bands of parallel lines on the skin. They are caused by a variety of factors such as pregnancy, puberty, genetic factors, rapid weight gain or loss. Being a woman increases your risk of developing stretch marks. Stretch marks are a result of skin stretching and an increase in the hormone cortisone in our system. They are not dangerous and usually disappear over time. People of certain genetic types have a higher risk of developing stretch marks and may experience the following symptoms: streaks of red, pink or purple covering large parts of their body.

#### Genes Analyzed:

ELN

HMCN1

SRPX

#### Recommendations

- You have a high genetic tendency to have stretch marks. if you have stretch marks, consult a dermatologist.
- Follow a diet that is rich in of Vitamins A, C and E and healthy fatty acids as they may reduce and prevent the occurrence of stretch marks.
- Include sweet potato, pumpkin, carrots, mangoes, mustard spinach, bell peppers, guavas, kiwifruit (100g), soybean oil, sunflower seed kernels (1 tbsp), asparagus, wheat germ, Atlantic mackerel, salmon fish (100-150gms) and chia seeds.
- Apply olive oil and creams rich in retinoic acid, vitamin E, vitamin A, Centella extracts and panthenol.
- Percutaneous collagen induction therapy, intense pulse light, microneedling with dermaroller and laser therapy could help lower stretch mark, under the supervision of a



dermatologist.

## tanning response

**Low:** Less likely to get tanned easily.

Tanning is a response to the sun's ultraviolet radiation resulting in an increased production of melanin. This is an adaptation to protect skin from damage as the increase in melanin darkens the skin. We test for variations in genes that are associated with the production of melanin. Those who have difficulty tanning are at higher risks of sunburn, sun spots, wrinkles, folate loss and melanoma while individuals who tan easily are at risk of vitamin D deficiency as they may derive less vitamin D from sun exposure. People of certain genetic types tan faster than others due to variability in tanning response and may experience the following symptom: skin color is darkened on sun exposed areas of the skin.

Genes Analyzed:

ASIP

SLC45A2

EXOC2

ASIP1

IRF4

### Recommendations

- You have a low genetic tendency to get tanned easily.

## varicose veins

**Moderate:** Moderately likely to have varicose veins.

Varicose veins occur when your veins become enlarged, dilated, and overfilled with blood. They are dark purple to blue veins under the skin on the back of the legs that often appear twisted and bulged like cords. This condition is very common, especially among women. Some people experience pain, heaviness and itching in the legs. About 10% of the affected people develop skin changes like pigmentation or eczema. It can subsequently impair the quality of life. People of certain genetic types are at a higher risk of developing varicose veins and may experience the following symptoms: misshapen veins, especially on the legs, which may also be accompanied with pain, heaviness or

swelling.

Genes Analyzed:

MTHFR

MTHFR1

### Recommendations

- You have a moderate genetic tendency to have varicose veins.
- If you have varicose veins, consult a dermatologist. Here are a few recommendations to reduce varicose veins.
- Follow a diet rich in antioxidants, vitamins C and E as they may reduce and prevent varicose veins.
- Include pumpkin, carrots, mangoes, mustard spinach, bell peppers, guavas, kiwifruit (100g), soybean oil, sunflower seed kernels (1 tbsp), asparagus and wheat germ in your diet.
- Use of creams containing Witch Hazel extracts, grape seed extracts and flavonoids may be effective in reducing varicose veins.
- Sclerotherapy, laser and RF induced therapy are the most common procedures used in the treatment of varicose veins, under the supervision of a dermatologist.

## wrinkle and collagen degradation

**Low:** Less likely to have premature wrinkles.

Wrinkles are a sign of skin aging and are caused by a variety of factors such as genetics, skin pigmentation, dehydration, UV exposure, smoking and alcohol abuse. They are accompanied by the natural aging process and occur when collagen and elastin in the skin become weak and begin to break down. This results in the damage of skin cells. People of certain genetic types have a higher risk of having wrinkles and may experience the following symptoms: deep furrows or crevices especially around the mouth, eyes and neck.

Genes Analyzed:

STXBP5L

### Recommendations

- You have a low genetic tendency to have premature wrinkles.

## antioxidant levels

Normal: Maintain normal antioxidant intake

Antioxidants are natural substances that protect the body against the unstable molecules (reactive oxygen species or ROS) generated inside the body either as a by-product of cellular metabolism or certain environmental stresses. Increased ROS or reduced antioxidants activity in the body results in a state of oxidative stress. This leads to an increased requirement of antioxidants to protect the body from the detrimental effects of ROS. Exercise can help decrease oxidative stress as well as induce it. Certain genes like CAT (catalase) have an influence on oxidative stress. People with certain genetic types are more prone to oxidative stress than others.

Genes Analyzed:

CAT

SOD2

PON1

### Recommendations

- You may have a genetic tendency for normal antioxidant levels.
- Include foods rich in antioxidants.
- Low antioxidant level increases the risk for cardiomyopathy.
- Foods rich in antioxidants are purple, red, and blue grapes, blueberries, nuts, green leafy vegetables, sweet potato, carrots, whole grains, and beans

## vitamin a levels

Normal: Maintain normal vitamin A intake

Vitamin A is required for clear vision, healthy skin, and enhanced immunity. Animal sources provide vitamin A in the form of retinol, while plant sources provide the precursor of vitamin A in the form of carotenes, which need to be converted into retinol. Research shows that vitamin A assists in the growth and repair of body tissues and muscles and is also needed for energy production. Variants in genes like BCMO1 play a role in the conversion of carotenes. People with certain genetic types need more vitamin A in their diet due to the less efficient conversion of carotenoids to retinol.

## Genes Analyzed:

BCO1 (BCMO1)

CYP26B1

PKD1L2

PNPLA3

RBP4

TTR

### Recommendations

- You may have a genetic tendency for normal vitamin A levels.
- Meet your daily requirements for vitamin A.
- Measure your serum vitamin A levels; if below normal even after meeting RDA requirements, consult a physician.
- Include carrots, sweet potato, pumpkin, green leafy vegetables, parsley, basil, coriander, milk, fish, and bell peppers in your daily diet.

## vitamin b12 levels

**Need more:** Moderately increase vitamin B12 intake

Vitamin B12 is actively involved in red blood cell maturity, and its deficiency can lead to pernicious anemia and general fatigue. It also helps in the removal of homocysteine from the cells. Vitamin B12 is essential for energy production, muscle growth, and coordination. It helps the body meet the oxygen demands of muscles during training. Genes like CUBN can influence the amount of vitamin B12 absorbed by the body. People with certain genetic types need more vitamin B12 in their diet due to lesser absorption in the body.

## Genes Analyzed:

CUBN

CLYBL

FUT2

FUT6

MS4A3

PRELID2

TCN1

TCN2

### Recommendations

- You may have a genetic tendency for moderately lower vitamin B12 levels.
- Measure your serum vitamin B12 levels; if below normal even after meeting RDA requirements, consult a physician.
- Vitamin B12-rich foods include fish and seafood.
- Other sources of vitamin B12 include seaweed, eggs, poultry, meat, and dairy products.

## vitamin b6 levels

### Normal: Maintain normal vitamin B6 intake

Vitamin B6 is required for the proper utilization of sugars, fats, and proteins in the body. It also protects the cells against glycation-induced damage. People with certain genetic types need more vitamin B6 in their diet as they lack the ability to fully metabolize this vitamin, leading to its low levels in the body.

### Genes Analyzed:

ADCYAP1R1

ALPL

NBPF3

### Recommendations

- You may have a genetic tendency for normal vitamin B6 levels.
- Meet your daily requirements for vitamin B6.
- Measure your serum vitamin B6 levels; if below normal even after meeting RDA requirements, consult a physician.
- Vitamin B6-rich foods include whole grain products, nuts, seeds, fish, pork, and meat.

## vitamin b9 levels

**Need more: Moderately increase vitamin B9 intake**

Vitamin B9 or folate plays a major role in DNA synthesis and repair. It is also essential for the conversion of homocysteine to methionine. Excess accumulation of homocysteine can be harmful. People with certain genetic types need more vitamin B9 in their diet due to lower folate levels and inefficient enzymatic conversion of homocysteine to methionine.

Genes Analyzed:

MTHFR

MYT1L

### Recommendations

- You may have a genetic tendency for moderately lower vitamin B9 levels.
- Meet your daily requirements for vitamin B9.
- Measure your serum vitamin B9 levels; if below normal even after meeting RDA requirements, consult a physician.
- Vitamin B9-rich foods include green leafy vegetables, oranges, peaches, broccoli, papaya, grapefruit, strawberries, beans, peas, lentils, avocados, okra, sunflower seeds, peanuts, flaxseeds, almonds, cauliflower, corn, celery, carrots, and fortified grains.

## vitamin c levels

**Need more: Moderately increase vitamin C intake**

Vitamin C is a potent antioxidant and is essential for enhanced immunity. Vitamin C helps in reducing pain and speeding up muscle strength recovery after high-intensity exercises. It also plays a role in building bones and maintaining strong muscles. Research shows that it is involved in a number of biochemical pathways needed for exercise metabolism. Genes like SLC23A1 can influence the amount of vitamin C absorbed by the body. People with certain genetic types need more vitamin C in their diet due to inefficient absorption in the body.

Genes Analyzed:

SLC23A1

### Recommendations

- You may have a genetic tendency for moderately lower vitamin C levels.
- Meet your daily requirements for vitamin C.
- Measure your serum vitamin C levels; if below normal even after meeting RDA requirements, consult a physician.
- Vitamin C-rich foods include agathi, cabbage, coriander leaves, drumstick leaves, capsicum, guava, green chilies, orange, and broccoli.

## vitamin d levels

**Need more: Moderately increase vitamin D intake**

Vitamin D, also called calciferol, is essential for the absorption of calcium from the intestine and enhanced immunity. Our body can synthesize sufficient vitamin D from cholesterol when the skin is exposed to adequate amounts of sunlight. Optimal levels of vitamin D can increase muscle protein, strength, and performance. Genes like VDR (vitamin D receptor) can influence the amount of vitamin D absorbed by the body. People with certain genetic types need more vitamin D in their diet due to inefficient absorption in the body.

### Genes Analyzed:

VDR

ABO

AC007950.2

ADH1A

APOC1

ARNT

BCAR4

CADM2

CELSR2

CETP

COG5

CPS1

CYP27B1

CYP2R1

DNAH11

DOCK7

DOK7

DSG1

EBF2

FAM166AP9

FBXL19

FDPS

FLG

FLJ42102

FOXO6

GATA4

GC

GCKR

HAL

HSD17B11

HTR5BP

KLK10

LDLR

LINC00536

LINC01004



LIPC

MARC\_1

MAT1A

MED23

MRPL3

NADSYN1

NPAS2

NPHS1

NRIP1

PADI1

PDILT

PEAK1

PLA2G3

PLEKHA7

RER1

RHOA

RP11-120M18.2

RP11-21L23.4

RP13-379L11.3

RP4-657M3.2

SCUBE1

SEC23A

SERPINB11

SLCO1B1

STAP2

SULT2A1

TDRD15

TFDP2

TM6SF2

TMEM151A

TNFAIP8

UGT1A4

UGT2B7

ZNF808

ZPR1

### Recommendations

- You may have a genetic tendency for moderately lower vitamin D levels.
- Meet your daily requirements for vitamin D.
- Measure your serum vitamin D levels; if below normal even after meeting RDA requirements, consult a physician.
- Get adequate sunlight exposure as it helps in the synthesis of vitamin D inside the body.
- Include vitamin D-rich foods like cod liver oil, fish, eggs, mushrooms, and fortified dairy products in your diet.

## vitamin e levels

**Need more:** Significantly increase vitamin E intake

Vitamin E, an antioxidant, defends the body against free radical damage and protects polyunsaturated fatty acids (PUFA) from oxidation. It has anti-inflammatory effects. Optimal levels of vitamin E are needed to prevent oxidative damage from aerobic exercises. It also helps build strong muscles. Variants of genes such as CD36 can influence the amount of vitamin E absorbed and utilized by the body. People with certain genetic types need more vitamin E in their diet due to inefficient transport and lower plasma levels of vitamin E.

## Genes Analyzed:

CD36

CYP4F2

SCARB1

TTPA

ZPR1

### Recommendations

- You may have a genetic tendency for low vitamin E levels.
- Meet your daily requirements for vitamin E.
- Measure your serum vitamin E levels; if below normal even after meeting RDA requirements, consult a physician.
- Sunflower seeds, olive oil, wheat germ oil, spinach, avocados, almonds, broccoli, and shrimps are rich in vitamin E.

## vitamin k levels

**Need more:** Significantly increase vitamin K intake

Vitamin K plays an important role in helping the blood clotting process and in preventing excessive bleeding. People with certain genetic types may need enhanced vitamin K supplementation to maintain adequate levels in the blood.

## Genes Analyzed:

GGCX

VKORC1

CYP4F2

### Recommendations

- You may have a genetic tendency for low vitamin K levels.
- Meet your daily requirements for vitamin K.
- Measure your serum vitamin K levels; if below normal even after meeting RDA