

Facial Wrinkles

DNA Health Report

REPORT CATEGORY —



SKIN & BEAUTY

Sample Client

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DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

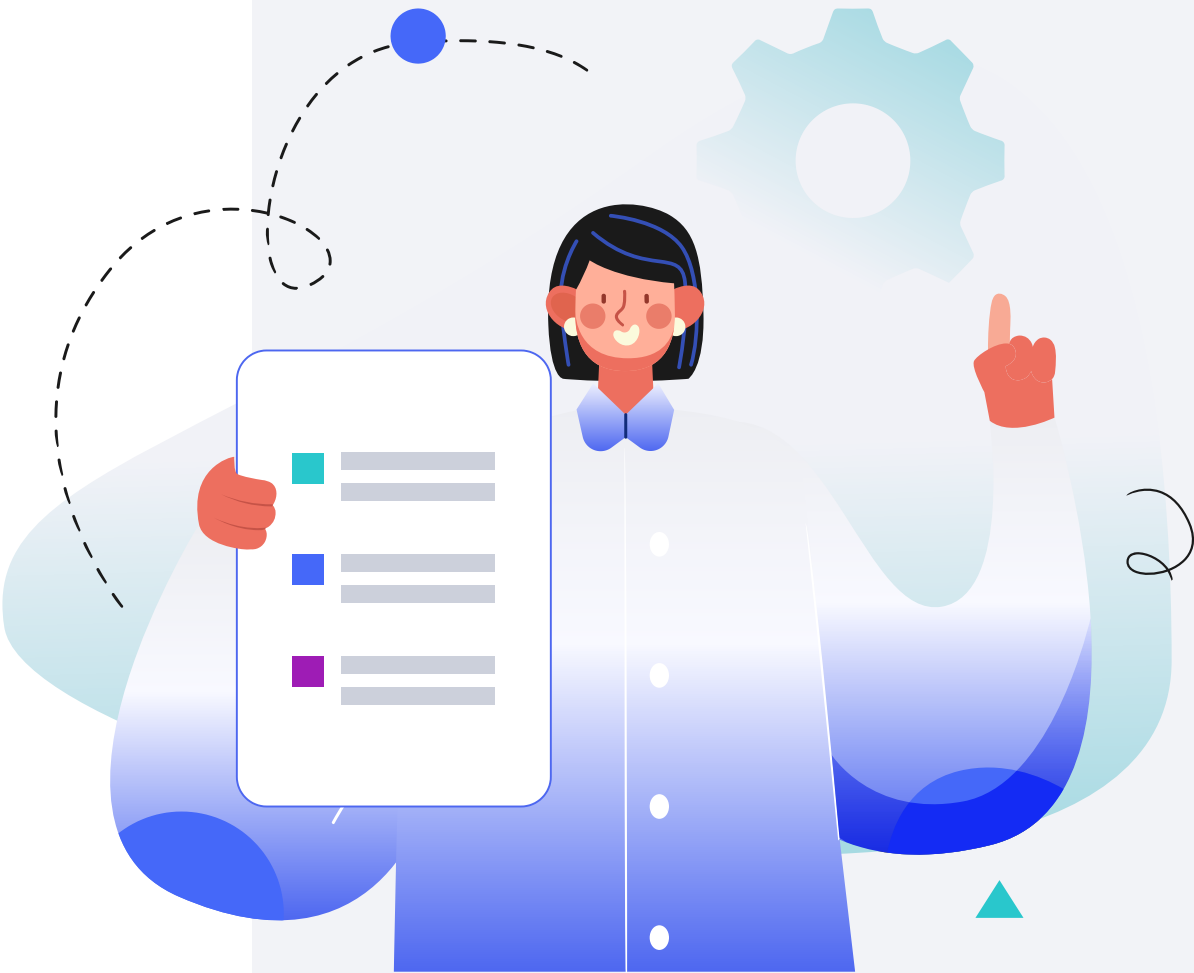
Male

HEIGHT

5ft 5" 165cm

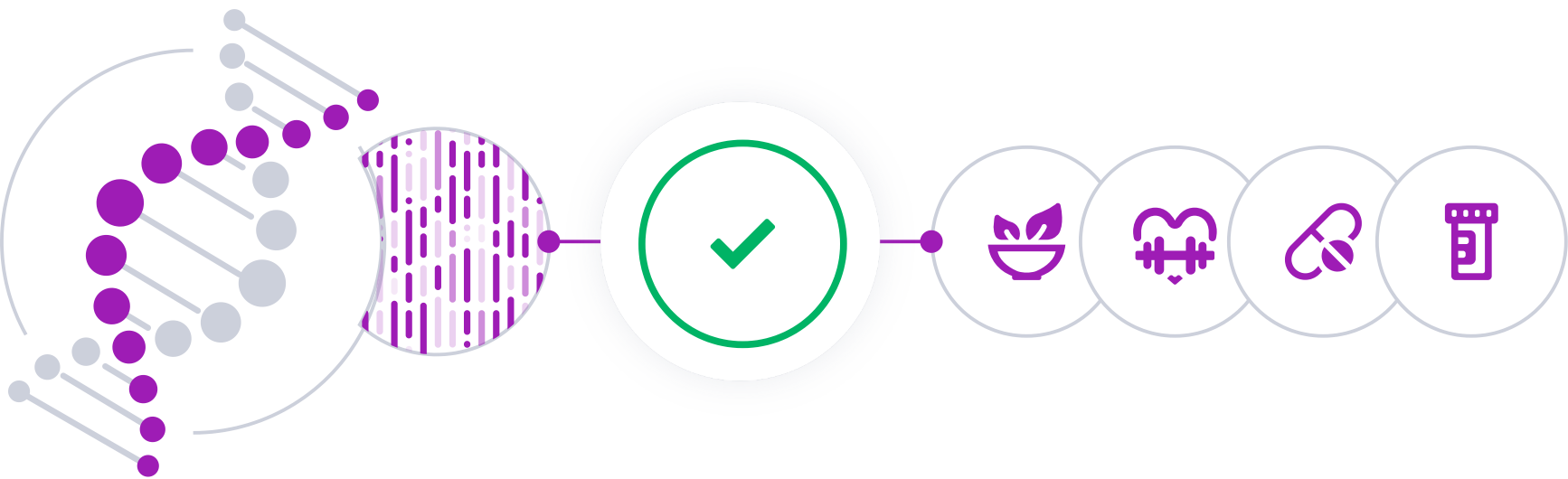
WEIGHT

137lb 62kg



How this works

Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.

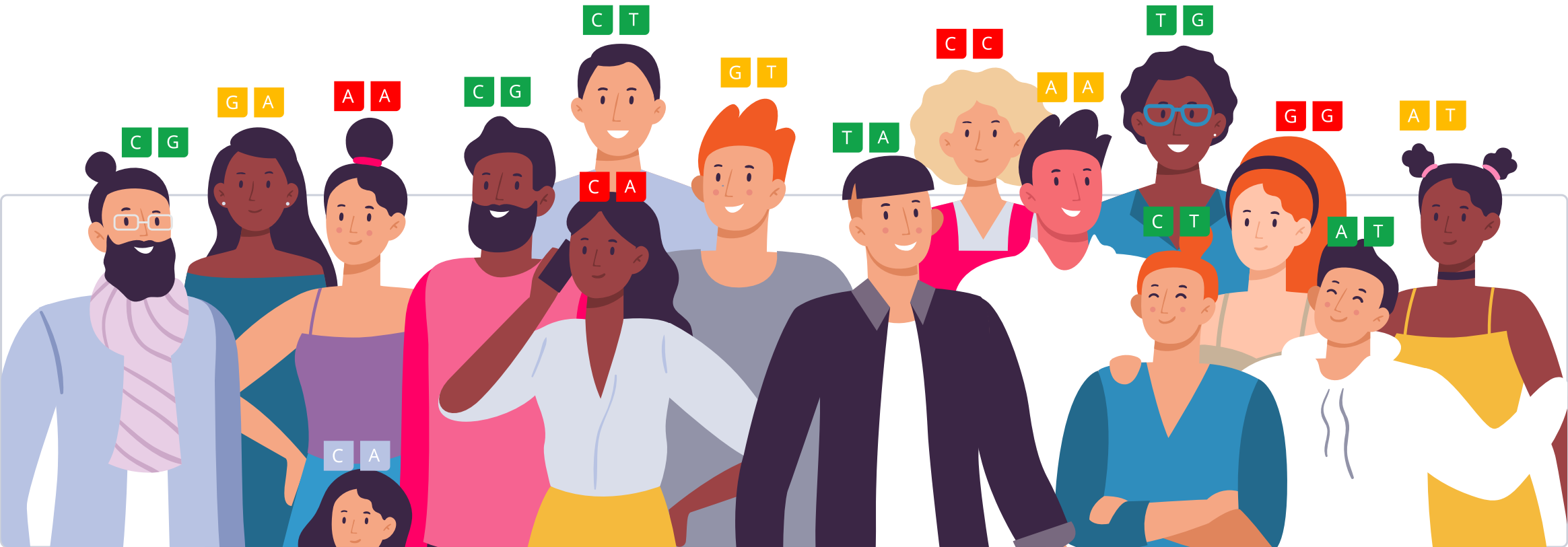


Similarly, our Trait Reports look at how your DNA influences your traits.



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information.
We then summarize your results as a risk score or display it on a gauge.

In total, we analyze up to 83 million genetic variants.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

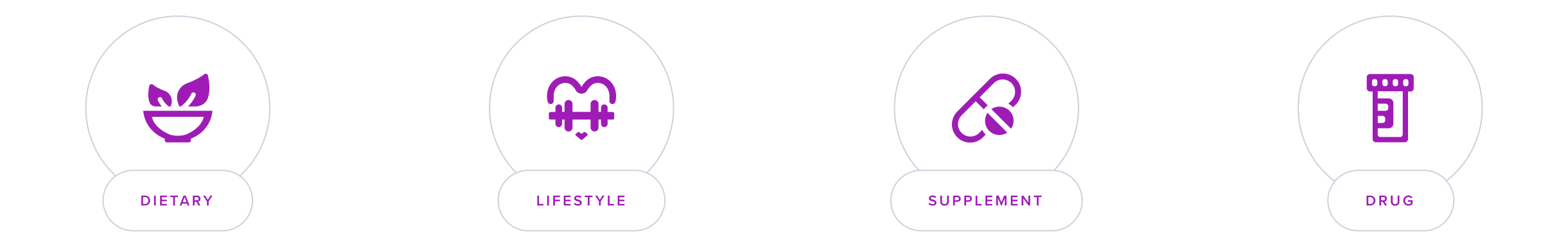
You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
-
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
-
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
-
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
-
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Wrinkles are small but visible folds in the skin. They can be classified as [\[R\]](#):

- Fine wrinkles (less than 1 mm in width and depth)
- Coarse wrinkles (greater than 1 mm)

Wrinkles appear with age and develop over several decades [\[R\]](#), [\[R\]](#).

They are more evident in areas of the body that are usually exposed, such as the face, neck, forearms, and hands. **The most noticeable wrinkles are facial** [\[R\]](#), [\[R\]](#).

Several skin changes may lead to wrinkling, including [\[R\]](#), [\[R\]](#):

- Thinning
- Loss of elasticity
- Increased fragility
- Reduced moisture

Wrinkles are not a medical condition. However, they may negatively impact a person's quality of life by affecting their [\[R\]](#):

- Physical appearance
- Self-esteem
- Social life

Factors Influencing Facial Wrinkling

Wrinkles are small but visible folds in the skin. Wrinkles appear with age and develop over several decades. They are more evident in areas of the body that are usually exposed, such as the face, neck, forearms, and hands. **The most noticeable wrinkles are facial** [\[R\]](#), [\[R\]](#), [\[R\]](#).

Up to **55%** of differences in people’s facial wrinkling may be due to genetics. Involved genes may influence **skin color and health** [\[R\]](#), [\[R\]](#), [\[R\]](#).

UV radiation also contributes to facial wrinkling. Excessive sunbathing or use of tanning beds exposes the skin to unhealthy levels of UV radiation and leads to premature aging. Hence, experts recommend wearing sunscreen [\[R\]](#), [\[R\]](#), [\[R\]](#).

Make sure to find the right balance. [Sunlight](#) or bright light during the day can benefit your body (by increasing vitamin D levels) and mind (by boosting mood) [\[R\]](#), [\[R\]](#).

The color of your skin also influences facial wrinkling. Wrinkles appear more rapidly in people sensitive to UV radiation. Hence, white skin may wrinkle earlier than other skin types [\[R\]](#), [\[R\]](#).

Others factors that may also contribute to facial wrinkling include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Aging
- Smoking
- Very low weight
- Health conditions (e.g., depression)



Predisposed to a typical amount of facial wrinkles based on 20 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SIK2	rs11213999	CC
TPGS2	rs78569750	GG
LRRC3B	rs116248825	CC
NUDT12	rs113322056	AA
HACD4	rs116873518	GG
SYNDIG1	rs184605088	CC
NUDT12	rs112608607	TT
LINGO2	rs117828793	CC
BBX	rs1283106	CA
BMP6	rs1225927	TG
/	rs11711327	GA
BMP6	rs382029	TA
MON1B	rs62047859	TT
DCSTAMP	rs147672305	TT
GLIS1	rs702491	CC
RESF1	rs1150997	AA
CA3	rs184880542	GG
/	rs72811030	GG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You’ll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

DOSAGE		DOSAGE			
1	Avoid Air Pollution	2	Avoid Excess Sunlight Exposure		
3	Light Therapy for Skin	30 minutes	4	Moisturize the Skin	
5	Radiofrequency (RF) Microneedling	1 hour	6	Topical Retinoids	
7	Topical Vitamin C		8	Collagen Peptides	10 g
9	Topical Niacinamide		10	Topical Green Tea	
11	Carotenoids	6 mg	12	Hyaluronic Acid	120 mg
13	Topical Tretinoin		14	Topical Retinaldehyde	
15	Pycnogenol	100 mg	16	Topical Retinol	
17	Astaxanthin	12 mg	18	Soy	
19	Topical Coffee Extract		20	Topical Gotu Kola	
21	Infrared Light Therapy		22	Aloe Vera	50 mg
23	Red Light Therapy	20 minutes	24	Zinc and Phytase	
25	Topical Alpha-Ketoglutarate		26	Topical Lycopene	
27	Bacillus Coagulans		28	Topical Macadamia Oil	
29	Dill Extract		30	Drink at Least 8 Glasses of Water a Day	
31	Almonds		32	Amla And Lingonberry	500 mg

33	Topical Ginseng		34	Topical Copper-Zinc Malonate	
35	Rice Ceramides	30 mg	36	Topical Alpha-Lipoic Acid	
37	Topical Lychee		38	Tea Of Heaven	
39	Djulis		40	Glutathione supplements	
41	Salmon Egg Extract	500 mg	42	Flaxseed Oil	15 g
43	Oleamide	100 mg	44	Persimmon	
45	Green Tea	400 mg	46	Bladderwrack	300 mg
47	Blood Orange Extract	500 mg	48	Coenzyme Q10 (CoQ10)	100 mg
49	Lactobacillus Plantarum	10 billion CFU	50	Dietary Beta-Carotene	
51	Topical Honeybush		52	Shark Cartilage	750 mg
53	Cocoa		54	Bacillus Coagulans MTCC5856	
55	Thyme And Lecithin	500 mg	56	Strength Training	1 hour
57	Pomegranate Extract	250 mg	58	Green Tea Extract	250 mg
59	Methylsulfonylmethane (MSM)	1 g	60	Topical Avocado Oil and Saffron	
61	Vitamin C	2000 mg	62	Avocado	
63	Apigenin	50 mg	64	Flaxseed	2 tbsp
65	Rose Hip	500 mg	66	Topical Saffron	
67	Phytase		68	Lingonberry	400 mg
69	Alpha-Ketoglutarate (AKG)	1 g	70	Amla	
71	Thyme				

1



Avoid Air Pollution

IMPACT4 / 5

EVIDENCE4 / 5

How to implement

Stay indoors on days when air quality indexes (AQI) indicate high pollution levels, which are often reported by weather services or government environmental agencies. **Install air purifiers** in your home, especially in bedrooms, to reduce indoor pollutants. Limit outdoor exercise when air pollution warnings are issued, opting for indoor activities instead.

Description

Avoiding air pollution by reducing exposure to pollutants in the environment is essential for respiratory and overall health. It can help lower the risk of respiratory diseases, cardiovascular conditions, and other health issues associated with poor air quality.

While city life is convenient in a lot of ways, it comes with some health hazards. Cars, factories, and other sources increase air [pollution](#) [\[R\]](#).

Air pollution plays a role in [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lung disease
- Heart disease
- Diabetes
- Asthma
- Skin conditions

How it helps

Air pollutants, especially particulate matter and ozone, contribute to premature skin aging and wrinkling [\[R\]](#), [\[R\]](#), [\[R\]](#).

Moreover, pollution may worsen the effects of excessive sunlight exposure on the skin [\[R\]](#), [\[R\]](#).

Air pollution may speed up skin aging by causing oxidative stress and inflammation. Pollutants may also increase the sensitivity of the skin to UV radiation [\[R\]](#).

2



Avoid Excess Sunlight Exposure

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

Limit direct sun exposure to early morning or late afternoon hours, ideally before 10 a.m. or after 4 p.m., when UV rays are less intense. Wear protective clothing, such as long-sleeved shirts, pants, and wide-brimmed hats, along with sunglasses that block UVA and UVB rays. Apply a broad-spectrum sunscreen with at least SPF 30 to all exposed skin, reapplying every two hours or immediately after swimming or sweating.

Description

Avoiding excessive sunlight exposure and practicing sun safety measures, such as wearing sunscreen and protective clothing, helps reduce the risk of skin damage, including sunburn and skin cancer. It supports long-term skin health and minimizes the harmful effects of UV radiation.

[Sunlight](#) or bright light during the day can benefit your body and mind. It may [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Boost your mood
- Boost your performance and energy
- Improve sleep quality

Experts recommend getting **at least 5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [\[R\]](#), [\[R\]](#).

However, **excessive sun exposure may lead to sunburn, skin aging, and skin cancer**, so make sure to find the right balance [\[R\]](#), [\[R\]](#).

How it helps

Excessive exposure to sunlight is a well-known risk factor for premature facial wrinkling [\[R\]](#), [\[R\]](#), [\[R\]](#).

Good sun-protection practices recommended by experts to reduce skin aging include [\[R\]](#), [\[R\]](#):

- Using a broad-spectrum sunscreen with an SPF of 30 or more and applying it repeatedly, especially if swimming or sweating
- Wearing sun-protective clothing
- Avoiding sun exposure during peak UV times (between 11 AM and 3 PM in summer)
- Seeking shade whenever possible
- Avoiding the use of indoor tanning
- Consulting the UV index and taking precautions based on its predicted levels

UV radiation from sunlight may age the skin by causing oxidative damage [\[R\]](#).

3



Light Therapy for Skin

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

Sit in front of a light therapy box that emits a bright light (without UV rays) for about 20 to 30 minutes daily, preferably in the morning. Make sure the light is indirectly entering your eyes, as direct exposure can be harmful. Consistently use light therapy daily over several weeks to notice improvements in skin conditions.

TYPICAL STARTING DOSE

30 minutes

Description

Light therapy, such as phototherapy or laser treatments, can be effective for various skin conditions like psoriasis and acne by reducing inflammation, promoting skin cell turnover, and improving overall skin appearance.

Light therapy involves shining different types of light on the skin. Doctors prescribe light therapy to help with certain skin conditions, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Psoriasis
- Eczema
- Acne
- Stretch marks

Different types of light can be used for skin, including [\[R\]](#), [\[R\]](#), [\[R\]](#):

- UV light
- [Blue light](#)
- [Red light](#)
- Laser therapy

How it helps

Lasers for skin resurfacing may improve facial wrinkles. Some forms destroy the outer layer of the skin (ablative laser resurfacing) while others don't (non-ablative laser resurfacing). Although ablative lasers are typically assumed to be more aggressive, most of the research found both modalities similarly effective and safe [\[R\]](#), [\[R\]](#), [\[R\]](#).

CO2 laser may be more effective than Er:YAG laser, especially for deeper wrinkles. In turn, Er:YAG may be preferred for superficial wrinkles due to its faster recovery [\[R\]](#), [\[R\]](#), [\[R\]](#).

Both RF microneedling and laser therapy may be similarly effective at improving facial wrinkles. Their combination may yield the best results [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Light therapy may help by removing the outer layer of the skin and increasing the production of elastin and collagen [\[R\]](#).

Please note: *Light therapy may damage skin and increase signs of aging. Please consult your doctor before trying any light therapy* [\[R\]](#), [\[R\]](#).

4



Moisturize the Skin

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

Apply a moisturizer to your skin within a few minutes after bathing or showering once daily. For dry skin conditions, moisturizing twice daily, once in the morning and once at night before bed, may be beneficial. Choose a moisturizer suited for your skin type; for sensitive skin, opt for fragrance-free options.

Description

Moisturizing the skin involves applying skincare products to maintain skin hydration, prevent dryness, and support a healthy skin barrier, which can help alleviate skin conditions like dryness, itching, and flakiness.

A water imbalance in the skin can make it dry and more susceptible to irritation [\[R\]](#).

Moisturizers help the skin retain water. In doing so, they may strengthen the skin barrier [\[R\]](#).

There are many types of moisturizing products, including [\[R\]](#):

- Gels
- Lotions
- Creams
- Ointments

These products differ in their water and oil content. Ointments contain the most oil. Lotions and gels contain more water. Creams have a bit of both [\[R\]](#).

It might take some trial and error to find products that work best for your skin type [\[R\]](#).

People with skin conditions like eczema may benefit more from using moisturizers with a lot of oil. These include ointments and creams [\[R\]](#), [\[R\]](#).

How it helps

Aging gradually worsens the barrier function of the skin. This results in increased water loss, causing dry, pale skin with fine wrinkles [\[R\]](#), [\[R\]](#).

Applying moisturizer products may help improve skin appearance, barrier function, and renewal. Creams, oils, and lotions may be similarly effective [\[R\]](#), [\[R\]](#).

Moisturizers may work better when they include active ingredients that reduce oxidative damage and promote skin cell growth and repair [\[R\]](#).

5



Radiofrequency (RF) Microneedling

IMPACT

4 / 5

EVIDENCE

3 / 5

How to implement

Schedule an RF microneedling session with a certified dermatologist or medical spa professional. The procedure typically takes about an hour and is done every 4-6 weeks, for a total of 3-4 sessions, to achieve optimal outcomes. Maintenance treatments might be needed annually depending on individual skin response.

TYPICAL STARTING DOSE

1 hour

Description

Radiofrequency microneedling is a cosmetic procedure that combines microneedling with radiofrequency energy to stimulate collagen production and improve skin texture and tightness, often used to reduce the appearance of wrinkles and scars.

Radiofrequency (RF) microneedling is a cosmetic procedure that uses a fine needle and RF waves to create tiny wounds in the skin. This triggers the production of capillaries, elastin, and collagen to help repair the wounds [\[R\]](#).

People use RF microneedling for a variety of skin conditions, including [\[R\]](#):

- **Fine lines**
- **Wrinkles**
- Loose, sagging skin
- Stretch marks
- Acne scars
- Scars from injury or surgery
- Excessive sweating

How it helps

RF microneedling may be a safe and effective method to improve facial wrinkles and skin texture [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Both RF microneedling and laser therapy may be similarly effective at improving facial wrinkles. Their combination may yield the best results [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

When compared to botulinum toxin injections, the effects of RF microneedling may be slower but longer lasting [\[R\]](#).

RF microneedling may help by causing tiny wounds in the skin. This stimulates its repair response, which leads to increased collagen and elastin production [\[R\]](#).

6



Topical Retinoids

IMPACT3 / 5

EVIDENCE4 / 5

How to implement

Apply a pea-sized amount of topical retinoid to clean, dry skin once every evening before moisturizing. Start with applications 2-3 times a week, gradually increasing to nightly use as your skin tolerates it.

Description

Retinoids are a class of vitamin A derivatives used topically for their ability to address various skin concerns, including acne, fine lines, and hyperpigmentation. They work by promoting cell turnover and collagen synthesis.

Retinoids are compounds related to [vitamin A](#). They include [\[R\]](#):

- Vitamin A (retinol)
- Natural vitamin A derivatives (retinoic acid, retinaldehyde, retinyl esters)
- Synthetic derivatives (tretinoin, isotretinoin, etretinate, tazarotene)

Retinoids control the growth of the skin and blood vessels. People apply topical retinoids to improve skin conditions such as [\[R\]](#):

- **Wrinkles**
- Acne
- Psoriasis
- Eczema
- Skin cancers

Please note: Topical synthetic retinoids are prescription drugs and should only be used if prescribed by a doctor. They can have significant side effects. Natural retinoids are much safer and available in different OTC cosmetic products.

How it helps

Topical retinoids may improve wrinkles and other symptoms of skin aging. Studied synthetic forms include [\[R\]](#), [\[R\]](#):

- Tretinoin (0.02-5%)
- Isotretinoin (0.05-0.1%)
- Tazarotene (0.01-0.1%)

It is unclear if natural retinoids such as retinol, retinaldehyde, and retinyl esters help with fine facial wrinkles [\[R\]](#).

Topical retinoids may help by regulating skin cell growth and increasing collagen content [\[R\]](#).

Please note: *Topical retinoids may cause skin dryness, burning, itching, and swelling at the site of application. It is recommended to start with the lowest dose and frequency of application, and gradually increase them as tolerance develops. Because retinoids increase skin sensitivity to sunlight, people on retinoid therapy are recommended to limit sun exposure. **Synthetic retinoids are prescription drugs and should only be used if prescribed by a doctor.** Pregnant women shouldn't use topical retinoids because they may increase the risk of malformations [\[R\]](#).*

7

Topical Vitamin C

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Apply a vitamin C serum to your face and neck once a day, preferably in the morning before applying sunscreen and makeup. It should be left on the skin, not washed off. Consistent daily use is needed for best results.

Description

Topical vitamin C, often in the form of ascorbic acid, is used for its antioxidant properties to protect the skin from environmental damage and promote collagen synthesis, benefiting overall skin health. It can be sourced from various natural plant extracts, such as citrus fruits.

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

How it helps

Topical vitamin C (1-5%) may improve collagen production, skin appearance, and wrinkling [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Vitamin C may also help combined with other active ingredients such as:

- Retinol [\[R\]](#)
- Gotu kola [\[R\]](#)
- Rice peptides [\[R\]](#)

Vitamin C may help by reducing oxidative damage to the skin and promoting collagen production [\[R\]](#).

8



Collagen Peptides

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 10-20 grams of collagen peptides daily, mixing the powder into a glass of water, juice, or a smoothie. It is recommended to consume this supplement on an empty stomach to improve absorption, ideally first thing in the morning or right before bedtime for a period of at least 8-12 weeks to observe beneficial effects.

TYPICAL STARTING DOSE

10 g

Description

Collagen peptides are a form of collagen that is broken down into smaller, more easily absorbed molecules. They are commonly used in supplements and skincare products for their potential to promote skin elasticity, hair strength, and nail health.

[Collagen](#) is a protein that helps build skin, bones, and joints [\[R\]](#), [\[R\]](#).

People use collagen supplements for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Joint pain
- Skin health
- Hair growth

How it helps

Oral hydrolyzed collagen (2.5-5 g/day for 8-12 weeks) may improve skin wrinkling, elasticity and hydration [\[R\]](#), [\[R\]](#).

The collagen content of the skin naturally decreases with age. Collagen supplements may help with wrinkles by restoring it [\[R\]](#).

9

Topical Niacinamide

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Apply a topical niacinamide product, containing 2-5% niacinamide, to clean, dry skin once or twice daily. For best results, use consistently as part of your morning and/or evening skincare routine.

Description

Niacinamide, a form of vitamin B3, is used topically for its ability to improve skin texture, reduce redness, and minimize the appearance of pores. It is a versatile skincare ingredient suitable for various skin types and conditions.

[Niacinamide](#) is a form of [vitamin B3](#) (niacin). Vitamin B3 supports your nerves, skin, gut, and more [\[R\]](#).

Niacinamide can be applied to the skin to potentially help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Acne
- Wrinkles
- Dark patches

How it helps

Topical creams with niacinamide (3-5% applied for 2-12 weeks) may reduce wrinkles, fine lines, skin roughness, and water loss [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Niacinamide may help by improving the barrier function of the skin and protecting it from sunlight damage [\[R\]](#), [\[R\]](#).

10



Topical Green Tea

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Apply a green tea extract cream or lotion to the affected area of the skin once or twice daily, depending on the specific product instructions. Ensure the skin is clean and dry before application.

Description

Green tea extracts, rich in catechins and antioxidants, are used topically for their potential to protect the skin from UV damage, reduce inflammation, and address conditions like acne. Green tea is sourced from the leaves of the *Camellia sinensis* plant.

[Green tea](#) is made from the same plant as black tea (*Camellia sinensis*). However, the leaves and buds are processed differently [\[R\]](#).

Green tea contains **catechins**. These are antioxidants that help reduce [oxidative stress](#) and inflammation [\[R\]](#).

EGCG is the main catechin found in green tea. It may help reduce inflammation and support healthy skin [\[R\]](#).

How it helps

Topical formulations with green tea extract (2-5%) may reduce wrinkling, improve skin elasticity, and prevent skin aging caused by sunlight. [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Topical green tea extract may also help in combination with other plant extracts and antioxidants [\[R\]](#), [\[R\]](#), [\[R\]](#).

Green tea catechins may reduce oxidative damage to the skin [\[R\]](#).

11



Carotenoids

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take a carotenoid supplement daily, with a meal that includes fats to improve absorption. Dosage can vary, but a common range is between 6 to 20 milligrams per day. Continue as long as it is recommended by your healthcare provider.

TYPICAL STARTING DOSE

6 mg

Description

Carotenoids are pigments found in colorful fruits and vegetables like carrots, sweet potatoes, and tomatoes. They have antioxidant properties and may support eye health, immune function, and overall antioxidant protection.

Carotenoids are red, orange, and yellow pigments produced by plants, algae, and some microorganisms. Some of the most common carotenoids include [\[R\]](#):

- [Beta-carotene](#)
- [Lycopene](#)
- [Astaxanthin](#)
- Zeaxanthin
- Lutein

The main effects of carotenoids on human health derive from their antioxidant activity. They help with eye health, cognition, heart health, and more. [\[R\]](#), [\[R\]](#).

Carotenoids are especially abundant in yellow- and orange-colored fruits and vegetables, as well as in green leafy vegetables. Some of the main food sources include [\[R\]](#):

- Carrots
- Sweet potatoes
- Tomatoes
- Mangoes
- Oranges
- Watermelon
- Bell peppers
- Kale
- Spinaches

Supplements are also available for people who don’t consume enough fruits and vegetables. Because they are fat-soluble, carotenoids are better absorbed with a fatty meal.

How it helps

Astaxanthin is the most widely investigated carotenoid for wrinkles. Oral supplementation (3-6 mg/day for 4-12 weeks) may restore skin moisture and improve skin texture and elasticity. However, it may not reduce wrinkle depth [\[R\]](#), [\[R\]](#).

Other carotenoids that may help repair skin aging include:

- Zeaxanthin [\[R\]](#), [\[R\]](#)
- Beta-carotene [\[R\]](#)
- Lycopene [\[R\]](#)
- Lutein [\[R\]](#)

Carotenoids may help by reducing oxidative damage to the skin [\[R\]](#).

12



Hyaluronic Acid

IMPACT

3 / 5

EVIDENCE

2 / 5

How to implement

Take 120-240 mg of oral hyaluronic acid supplement daily, ideally with or after a meal to enhance absorption. Consistent use for at least one month is recommended to evaluate its effects on skin hydration and joint health.

TYPICAL STARTING DOSE

120 mg

Description

Hyaluronic acid is a natural substance that plays a key role in joint and skin health. As a supplement or topical application, it may help support joint mobility and skin hydration.

How it helps

Hyaluronic acid may boost skin quality, serving as a potent adjunct to facial rejuvenation procedures and post-surgical recovery. However, the evidence is limited [R].

Preliminary research suggests that hyaluronic acid may also increase the benefits of other procedures for the management of wrinkles such as botulinum toxin [R].

According to meta-analyses, injected hyaluronic acid may help with nasolabial folds [R, R, R, R]

Hyaluronic acid may help by improving skin hydration [R].

Please note: While hyaluronic acid is widely regarded for its benefits in improving skin, individual reactions can vary. It is essential to consult with a dermatologist before starting any new treatment regimen, especially if you have underlying health conditions or concerns [R].

13

Topical Tretinoin

IMPACT2 / 5

EVIDENCE3 / 5

Description

Tretinoin, a topical retinoid, is used for its potential to treat acne and improve skin texture by promoting collagen production. It is derived from vitamin A and functions as a synthetic compound.

Retinoids are compounds related to vitamin A. They include natural and synthetic derivatives. Tretinoin is a synthetic derivative [\[R\]](#).

Retinoids control the growth of the skin and blood vessels. People apply topical retinoids to improve skin conditions such as [\[R\]](#):

- **Stretch marks**
- Wrinkles
- Acne
- Psoriasis
- Eczema
- Skin cancers

How it helps

Topical tretinoin (0.02-0.05% applied for 4-12 months) improved skin elasticity and repaired skin photodamage according to 8 trials of 173 people. Tretinoin may help by increasing collagen skin elastic fiber production [\[R, R, R, R, R, R, R, R\]](#).

14

Topical Retinaldehyde

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Apply a pea-sized amount of retinaldehyde cream or serum to clean, dry skin once every evening before bedtime. Avoid applying it around the eyes and mouth. Consistent use over months is usually necessary to see improvement in skin texture and tone.

Description

Retinaldehyde is a vitamin A derivative often used in skincare for its potential to improve skin texture, reduce wrinkles, and promote collagen production. It is milder than prescription retinoids, making it suitable for those with sensitive skin.

How it helps

In one study, 19 healthy volunteers used a cream with a small amount of retinaldehyde (0.05%), which resulted in more elastic and thicker skin. Another study involving 23 volunteers found that applying a slightly higher concentration of retinaldehyde (0.1%) for 8 weeks also improved skin elasticity and other signs of aging [\[R, R\]](#).

Moreover, a larger study with 1,462 participants used a combination of retinaldehyde (0.05%) and hyaluronic acid for 90 days, improving skin elasticity [\[R\]](#).

15



Pycnogenol

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take 100 mg of pycnogenol supplement daily. This can be taken in a single dose or divided into two doses of 50 mg each, one in the morning and one in the evening.

TYPICAL STARTING DOSE

100 mg

Description

Pycnogenol (pine bark extract) is derived from the bark of the maritime pine (Pinus pinaster). It has been used in traditional n European folk medicine for centuries, and more recently as a supplement. The extract contains a group of bioactive compounds known as proanthocyanidins, which may be beneficial in supporting cardiovascular health, promoting skin health, and aiding in the management of various conditions related to inflammation and oxidative stress.

Pycnogenol comes from the bark of pine trees that grow in the Mediterranean [\[R\]](#), [\[R\]](#).

It may improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Athletic performance
- Seasonal allergies
- Cognitive function
- Joint health
- Varicose veins

How it helps

Oral pycnogenol (40-100 mg/day for 12 weeks) may reduce skin aging and moisture loss while increasing skin elasticity and collagen content [\[R\]](#), [\[R\]](#), [\[R\]](#).

Pycnogenol is rich in polyphenols that may reduce oxidative damage to the skin [\[R\]](#).

16

Topical Retinol

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Apply a pea-sized amount of retinol cream to clean, dry skin, focusing on areas of concern such as the face, avoiding the immediate eye area, once every third night for the first two weeks. If well tolerated, gradually increase to every other night, and eventually nightly as your skin adjusts, over a period of several weeks.

Description

Retinol is a form of vitamin A used in skincare for its potential to reduce the appearance of wrinkles, improve skin texture, and promote a youthful complexion. It is derived from animal sources and is widely used in anti-aging products.

Retinol is a form of [vitamin A](#), a nutrient important for [\[R\]](#), [\[R\]](#):

- Vision
- Immunity
- Gut health
- Skin health

Foods rich in vitamin A include [\[R\]](#):

- Beef liver
- Sweet potato
- Spinach
- Carrots
- Cheese

Retinol is more commonly used in topical skin care products.

How it helps

Applying retinol (0.1-1%) on the skin for 8-12 weeks improved elasticity, firmness, skin tone, and moisture in 4 placebo-controlled trials of 101 healthy volunteers, 41 patients with photodamaged skin, and 15 women with cellulite [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Retinol may help by [\[R\]](#):

- Increasing skin collagen levels
- Protecting against UV rays

However, the evidence supporting the use of topical retinol for skin aging is still limited [\[R\]](#).

17



Astaxanthin

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take an astaxanthin supplement daily, with a typical dosage ranging from 4 to 12 mg. It is best taken with a fat-containing meal to enhance absorption.

TYPICAL STARTING DOSE

12 mg

Description

Astaxanthin is a powerful antioxidant found in certain microalgae and seafood. It is known for its potential benefits in reducing oxidative stress, supporting skin health, and promoting eye health.

[Astaxanthin](#) is a naturally-occurring orange-red pigment carotenoid found in algae, shrimp, lobster, crab, and salmon [\[R\]](#). As an antioxidant, astaxanthin is **10 times stronger than zeaxanthin, lutein and [beta-carotene](#), and 100 times stronger than [vitamin E](#)** [\[R\]](#). People take astaxanthin to:

- Support skin health [\[R, R\]](#)
- Reduce exercise fatigue [\[R, R\]](#)
- Prevent heart disease [\[R, R, R\]](#)

How it helps

Oral supplementation with astaxanthin (3-12 mg/day for 4-12 weeks) may improve skin elasticity and texture while restoring skin moisture according to 2 meta-analyses (the largest one with 11 studies). However, larger studies without conflicts of interest are needed to confirm these benefits [\[R, R\]](#).

18



Soy

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Incorporate soy-based products such as tofu, soy milk, and edamame into your daily diet. Aim for at least one serving per day, equivalent to about a cup of soy milk, a half-cup of cooked soybeans, or a 3-ounce piece of tofu.

Description

Soy is a legume native to East Asia, and its health benefits include being a source of plant-based protein, fiber, and various vitamins and minerals. It is known for its potential to support heart health, reduce cholesterol levels, and provide essential nutrients in vegetarian and vegan diets.

Soy is a common food in many cuisines around the world, especially Asian cuisines [\[R\]](#).

It’s a great source of [\[R\]](#), [\[R\]](#):

- Plant-based protein
- Fiber
- Omega-3 fats
- Antioxidants (isoflavones)

Soy-based foods include [\[R\]](#):

- Soy beverages
- Tofu
- Tempeh
- Edamame
- Miso
- Natto

Soy protein and soy isoflavones are also available as supplements.

How it helps

Soy supplements may improve skin wrinkling, elasticity, and firmness, especially when combined with plant extracts and antioxidants. Studied forms include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Soy isoflavones (40-70 mg/day for 12-14 weeks)
- Soy extract (350 mg/day for 6 months)

Soy components such as isoflavones may help by reducing oxidative damage to the skin, stimulating skin cell growth, and preventing collagen breakdown [\[R\]](#).

19



Topical Coffee Extract

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Apply a thin layer of coffee extract cream or gel directly onto the clean, affected area of the skin. Use once or twice daily, depending on the product's instructions or a healthcare provider's advice. Continue this routine for a minimum of six to eight weeks to observe potential benefits.

Description

Coffee extract is derived from coffee beans and is often used in skincare products for its antioxidant properties, which can help protect the skin from free radical damage and reduce the appearance of fine lines and wrinkles.

People drink coffee for an energy and mood boost. [Caffeine](#) is the main ingredient responsible for these effects [\[R\]](#) [\[R\]](#).

Caffeine may also help [\[R\]](#) [\[R\]](#) [\[R\]](#):

- Support heart health
- Improve mood
- Maintain healthy blood sugar
- Improve skin health

How it helps

Applying coffee pulp serum (3 mL/day for 4 weeks) on the skin may improve skin elasticity, texture, moisture, and collagen content. Drinking it may be similarly effective [\[R\]](#).

Topical formulations with coffee extract and other fruit and vegetable extracts applied for 8-12 weeks may improve wrinkles and other signs of skin aging [\[R\]](#) [\[R\]](#).

Coffee extract may help by reducing oxidative damage to the skin [\[R\]](#).

20



Topical Gotu Kola

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Apply a cream or gel containing gotu kola extract directly to the affected skin area twice daily, typically in the morning and evening. Continue this application regularly for up to 4-8 weeks to notice improvements.

Description

Gotu kola extracts, containing triterpenoids as the primary bioactive compounds, are used topically to support wound healing, reduce scars, and improve skin elasticity. This herb originates from Southeast Asia and is commonly found in skincare products.

[Gotu kola](#) or Pennywort (*Centella asiatica*) is an herb used in Tai-Chi tradition and Ayurvedic and Chinese Traditional Medicine.

Gotu kola is used as an antioxidant and anti-inflammatory. Traditional uses include:

- Wound healing [\[R\]](#)
- Improving leg circulation [\[R\]](#)

How it helps

Applying topical creams with gotu kola around the eyes and lips for 12 weeks may help improve wrinkles [\[R\]](#).

Gotu kola may help by increasing collagen production [\[R\]](#).

21



Infrared Light Therapy

IMPACT

2 / 5

EVIDENCE

2 / 5

Description

Infrared light therapy is a type of light therapy that uses infrared light to improve circulation, reduce pain, and promote healing. It has been shown to be effective in treating a variety of conditions, including arthritis, chronic pain, and wound healing.

How it helps

A meta-analysis of 31 studies identified infrared LEDs among those helping with psoriasis lesions, as well as with skin rejuvenation [\[R\]](#).

22



Aloe Vera

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take a 50 mg Aloe vera supplement daily, with a glass of water, preferably at the same time each day to maintain consistency.

TYPICAL STARTING DOSE

50 mg

Description

Aloe vera is a succulent plant native to arid regions and contains a gel-like substance in its leaves that is rich in vitamins, minerals, and antioxidants, making it beneficial for soothing skin irritations, promoting wound healing, and providing relief from conditions such as sunburn and minor burns. The primary active compounds in aloe vera gel include polysaccharides, vitamins like vitamin C and E, and minerals such as zinc, which contribute to its healing and anti-inflammatory effects.

[Aloe vera](#) lives in the desert, and its thick leaves store water in the form of a gel [\[R\]](#).

People use aloe gel to help soften the skin and soothe burns [\[R\]](#).

Oral aloe supplements may help with blood sugar and gut health [\[R\]](#).

How it helps

Oral aloe extract (1,200-5,000 mg/day for 8-12 weeks) may improve wrinkle depth, skin moisture and elasticity, and collagen production [\[R\]](#), [\[R\]](#).

Aloe may help by improving collagen production [\[R\]](#).

23



Red Light Therapy

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Position yourself or the specific area of your body that needs treatment about 6 inches away from a red light therapy device. Use the device for 10 to 20 minutes daily. It is recommended to continue this daily regimen for at least several weeks to notice benefits.

TYPICAL STARTING DOSE

20 minutes

Description

Red light therapy involves exposure to low-level red or near-infrared light, which may promote skin rejuvenation, reduce inflammation, and improve circulation when used for therapeutic purposes in skin care and wellness treatments.

How it helps

In a study of 31 subjects, a combination of red and infrared LED light therapy helped improve skin conditions. They had **less sun-induced aging and wrinkles** [\[R\]](#).

In another trial of 52 female patients, 12 weeks of daily treatment with red light therapy significantly improved eye wrinkles. Red light therapy also significantly **improved skin complexion, roughness, and collagen density** in a trial of 136 participants [\[R\]](#), [\[R\]](#).

24



Zinc and Phytase

IMPACT2 / 5

EVIDENCE1 / 5

Description

Zinc is an essential mineral found in various foods, including meat, dairy, and nuts. It is crucial for immune function, wound healing, DNA synthesis, and maintaining healthy skin and nails. Zinc supplements are sometimes used to support immune health and manage zinc deficiencies.

[Zinc](#) is an essential mineral. Your body needs it to [\[R\]](#), [\[R\]](#):

- Defend against disease
- Protect DNA from damage
- Heal wounds
- Control blood sugar

Some of the best sources of zinc include shellfish, pork, beef, and beans. It is also available as a supplement [\[R\]](#).

Adults should get 8-11 mg of zinc per day [\[R\]](#).

Phytase is an enzyme that helps break down phytic acid, a form of phosphorus stored in plants, which can hinder the absorption of essential minerals like iron, calcium, and zinc in the human body. By enhancing the bioavailability of these minerals, phytase can contribute to better nutrition and overall health [\[R\]](#).

How it helps

A study of 77 people explored whether oral zinc plus phytase supplementation could enhance botulinum toxin treatments for facial wrinkles and certain spasms. It found that zinc citrate (50 mg/day) and phytase (3,000 PU/day) led to a nearly 30% increase in the duration of the toxin's effects [\[R\]](#).

25

Topical Alpha-Ketoglutarate

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Topical alpha-ketoglutarate (AKG) is a form of the amino acid alpha-ketoglutaric acid that is applied to the skin. It is used to treat a variety of skin conditions, including acne, eczema, and psoriasis. AKG may help to reduce inflammation and improve skin barrier function.

How it helps

Alpha-ketoglutarate (AKG) may support skin hydration and elasticity through its role in collagen and elastin synthesis. Collagen and elastin are key structural proteins in the skin, contributing to its firmness and elasticity.

AKG, as a critical molecule in the Krebs cycle, is involved in the production of energy needed for the synthesis of these proteins. It also serves as a precursor for the amino acids like proline and lysine, essential for collagen formation. Additionally, its potential antioxidative properties may protect skin cells from oxidative stress, which can degrade collagen and elastin.

In cultured human dermal fibroblasts, α-KG stimulates procollagen production and activates prolidase, an enzyme involved in collagen metabolism. In UVB-irradiated hairless mice, topically applied α-KG reduces wrinkle formation [R].

Alpha-ketoglutarate (Alpha-KG), an important metabolic intermediate, has shown skin benefits. In vitro tests revealed that Alpha-KG promotes skin hydration, barrier function, and cell proliferation. Clinical testing demonstrated reduced wrinkles, improved firmness, and increased skin gloss with Alpha-KG. Rice fermented liquid containing Alpha-KG is a promising ingredient for skin care products, offering potential benefits for skin health [R].

26

Topical Lycopene

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Apply a topical lycopene cream or serum with a concentration between 0.001% and 0.1% to the affected skin areas once or twice daily. Continue applying consistently for at least 8 to 12 weeks to observe potential benefits.

Description

Lycopene, a carotenoid found in tomatoes and other red fruits, is used topically for its potential to protect the skin from UV damage and reduce the risk of sunburn. It acts as a natural sunscreen and may help maintain skin's youthful appearance.

[Lycopene](#) is a bright red carotenoid that gives color to a number of fruits such as [\[R\]](#), [\[R\]](#):

- Tomato
- Guava
- Watermelon
- Papaya
- Apricot
- Grape
- Peach
- Cranberries

How it helps

According to one study, applying a lycopene-based gel (1x/day for 12 weeks) may improve skin elasticity and hydration in a placebo-controlled trial. It may also reduce redness, oiliness, and hyperpigmentation [\[R\]](#).

27



Bacillus Coagulans

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a Bacillus coagulans supplement containing 1 to 2 billion CFUs (colony forming units) daily, with a glass of water, preferably with meals. This routine should be consistently followed for at least four weeks to potentially see benefits.

Description

Bacillus coagulans is a probiotic strain believed to support digestive health and boost the immune system. It's used in various probiotic supplements and may aid in maintaining gut balance.

How it helps

Bacillus coagulans, a probiotic bacteria, may help reduce the appearance of facial wrinkles by supporting skin health and reducing inflammation. It may achieve this by promoting collagen production and improving overall skin elasticity.

In a [placebo-controlled trial of 56 healthy women](#), applying a cream with B coagulans MTCC 5856 for 10 weeks **reduced the visibility of wrinkles around crow's feet, nasolabial folds, frown lines, and facial fine lines** [\[R\]](#).

28



Topical Macadamia Oil

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Macadamia nut oil is rich in monounsaturated fats, antioxidants, and vitamins. It is also known for moisturizing the skin when applied externally. Its lightweight, non-greasy nature makes it a favored choice for nourishing creams and serums [\[R\]](#).

How it helps

A study explored the anti-aging effects of macadamia nut oil in a nanocream form versus a conventional cream. The nanocream, which incorporated macadamia nut oil at 10%, demonstrated superior anti-aging activity. Over 4 weeks, it improved skin moisture and evenness, and reduced pore size, black spots, and wrinkles more than the conventional cream [\[R\]](#).

29



Dill Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take dill extract in supplement form, usually available in capsules, following the manufacturer's recommended dosage. For most supplements, this implies taking one capsule, typically containing around 500mg of dill extract, daily with water. It's best to consult with a healthcare provider for personalized dosage and duration.

Description

Dill extract is a concentrated form of the herb, often used for its potential digestive and antimicrobial properties. It is sometimes taken as a supplement or used in traditional herbal remedies.

How it helps

In a placebo-controlled trial of 50 healthy women, treatment with 1% dill extract (for 56 days) increased skin elasticity [\[R\]](#).

A combined extract with dill and raspberry improved skin elasticity in a 12-week placebo-controlled trial of 60 women [\[R\]](#).

30



Drink at Least 8 Glasses of Water a Day

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume a total of at least 64 ounces (or approximately 1.9 liters) of water over the course of the day. This can be divided into 8 glasses, each containing 8 ounces of water. Aim to drink evenly throughout the day to avoid dehydration.

Description

Water is an essential nutrient for nearly every process in your body, helping to mainting brain and gut function, maintain a health weight, as well as energy and performance levels, among others.

Water is essential for life. It supports nearly every process in your body [\[R\]](#).

Water helps maintain [\[R\]](#):

- Energy and performance levels
- Brain function
- Gut function
- Healthy weight

Most experts recommend drinking **around 8 glasses (64 oz. or 2 L) of water daily**. You might need more or less than this, depending on how active you are, where you live, or what your overall health is like [\[R\]](#).

How it helps

A systematic review of studies in healthy adults aged 24 to 56 revealed that drinking water may cause a slight improvement in skin hydration, particularly in those previously consuming less water. Drinking water may also enhance skin elasticity and reduce dryness. However, the evidence supporting these benefits is limited and weak [\[R\]](#).

31



Almonds

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate a handful of almonds (about 23 kernels) into your daily diet. You can eat them as a snack, add them to your breakfast cereals or yogurt, or include them in salads and other dishes. Do this consistently for ongoing health benefits.

Description

Almonds are a good source of omega-6s, protein and vitamins, making for a great snack food. A 1-ounce serving provides 3700 mg of omega-6.

Almonds are nutritious tree nuts that originate from the Prunus dulcis tree. They are packed with essential nutrients, including healthy fats, fiber, vitamin E, and magnesium, which collectively contribute to heart health, support weight management, and may help regulate blood sugar levels.

How it helps

A study involving 56 postmenopausal women showed that consuming almonds (equivalent to 20% of the total daily energy for 24 weeks) led to a significant reduction in facial wrinkles and skin pigmentation compared to a calorie-matched snack. The almond group saw wrinkle severity decrease by 15% and 16% at 16 and 24 weeks, respectively, and a 20% reduction in facial pigment intensity [R].

32



Amla And Lingonberry

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take an amla supplement of 500 mg twice daily and a lingonberry supplement of 400-500 mg daily. Continue this regimen for at least 3-6 months to evaluate its benefits.

TYPICAL STARTING DOSE

500 mg

Description

Amla, also known as Indian gooseberry, is a fruit known for its high vitamin C content and antioxidant properties. It is used in traditional Ayurvedic medicine for various health benefits, including immune support and skin health. Lingonberry is a small, red, tart berry, rich in vitamin C content and potential health benefits, including its role in supporting urinary tract health.

How it helps

In a study involving 99 healthy women, the impact of lingonberry (25-50 mg/day) and amla fruit extract (30-60 mg/day) on skin health was tested over 12 weeks. The results showed improvements in skin elasticity, thickness, and moisture along with a reduction in wrinkles [R].

33



Topical Ginseng

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Apply a thin layer of ginseng-infused topical cream or gel to the affected area of the skin. Use once or twice daily for at least 4-6 weeks to observe potential benefits.

Description

Ginseng topical products incorporate ginsenosides, the key bioactive compounds in ginseng, to potentially enhance skin elasticity and reduce signs of aging. Ginseng is a root plant native to Asia, widely recognized for its adaptogenic properties.

[Ginseng](#) is a plant people use to improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Sexual function
- Immunity
- Fatigue
- Attention

There are many different types of ginseng. The most common ones are [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Korean red ginseng, also called Asian ginseng (*Panax ginseng*)
- [American ginseng](#) (*Panax quinquefolius*)

Chinese notoginseng, also called Sanchi (*Panax notoginseng*)

How it helps

Applying red ginseng on crow’s feet wrinkles for 12 weeks may reduce skin roughness and damage due to sun exposure [\[R\]](#).

Active components from ginseng may help by increasing collagen production and reducing skin damage caused by sun exposure [\[R\]](#).

34



Topical Copper-Zinc Malonate

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Copper is an essential trace mineral that plays a vital role in various bodily functions, including the formation of red blood cells and the maintenance of healthy connective tissues.

Zinc is an essential mineral found in various foods, including meat, dairy, and nuts. It is crucial for immune function, wound healing, DNA synthesis, and maintaining healthy skin and nails. Zinc supplements are sometimes used to support immune health and manage zinc deficiencies.

How it helps

A study on photoaged facial skin of 21 women showed that a cream containing 0.1% copper-zinc malonate (for 6 weeks) may increase elastin production and support the regeneration of the skin's elastic fiber network, crucial for maintaining skin's elasticity and resilience [\[R\]](#).

35



Rice Ceramides

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a rice ceramide supplement daily, preferably with meals to improve absorption. The typical dosage ranges from 30 to 40 mg per day. Continue this regimen for at least 3 months to notice improvements in skin hydration and texture.

TYPICAL STARTING DOSE

30 mg

Description

Rice ceramides are lipid molecules derived from rice bran that are often used in skincare products for their potential to hydrate and improve skin barrier function.

How it helps

Oral supplementation with rice ceramides significantly improved skin hydration, firmness, elasticity, reduced TEWL, melanin index, erythema index, sebum production, pH, and wrinkle severity, particularly in a study of 50 older individuals [R].

Rice ceramides may help by increasing skin hydration and strengthening its barrier. This ultimately helps to smooth out wrinkles and slows down their formation over time.

36

Topical Alpha-Lipoic Acid

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Apply a thin layer of alpha-lipoic acid cream, gel, or serum to the affected area of the skin once or twice daily, after cleansing and drying the skin thoroughly. Ensure to avoid contact with eyes and mucous membranes. Use consistently for at least 1-2 months to observe potential benefits.

Description

Alpha-lipoic acid is an antioxidant compound that can be applied topically to protect the skin from oxidative stress and promote a more youthful appearance. It may help reduce signs of aging and improve skin texture.

[Alpha-lipoic acid](#) is a natural antioxidant. It’s found in almost every cell in your body [\[R\]](#), [\[R\]](#), [\[R\]](#).

People use alpha-lipoic acid to help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Complications of high blood sugar
- Skin aging
- Weight loss

How it helps

Applying cream with alpha-lipoic acid (5-13%) for 12-24 weeks may reduce skin roughness while improving skin elasticity. Alpha-lipoic acid may be more effective in combination with plant extracts, marine proteins and antioxidants [\[R\]](#), [\[R\]](#).

Alpha-lipoic acid may help by reducing oxidative damage to the skin [\[R\]](#).

37



Topical Lychee

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Apply lychee extract topically to the affected area of the skin. Use a product with lychee extract once or twice daily for at least 8 to 12 weeks to see noticeable improvements in skin hydration and elasticity.

Description

Lychee extract, obtained from the lychee fruit, is a topical ingredient rich in antioxidants, particularly vitamin C. It is used to support skin health, combat oxidative stress, and promote a more youthful complexion.

How it helps

Topical lychee contains antioxidants and vitamin C which can boost collagen production in the skin. This can reduce the appearance of wrinkles by plumping up the skin and improving its elasticity.

In a randomized-single blind placebo control clinical with 29 volunteers, Mexameter® MX18, Cutometer® MPA 580 and Visioscan® VC 98 (0.05 and 0.1% litchi serum) applied in the inner forearm (for 112 days) helped with hyperpigmentation. It **increased skin lightening, skin elasticity, and wrinkles**, especially with the 0.1% concentration [\[R\]](#).

38



Tea Of Heaven

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To take Tea of Heaven as a supplement, steep one tea bag or one teaspoon of loose leaves in hot water for 5 to 10 minutes. Drink this tea 2 to 3 times per day, ideally before meals. Continue this routine daily for at least 4 weeks to observe benefits.

Description

"Tea of Heaven" is a term often used to describe high-quality teas, particularly in Chinese culture. These teas are prized for their exceptional flavor, aroma, and potential health benefits.

How it helps

According to a placebo-controlled trial of 151 people, supplementation with tea of heaven (600 mg/day for 12 weeks) may improve skin elasticity. Tea of heaven may help by [\[R\]](#):

- Fighting oxidative stress
- Improving collagen composition

39



Djulis

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate djulis (*Chenopodium formosanum*), also known as Taiwanese quinoa, into your diet by adding it to soups, salads, or as a rice substitute. Cook djulis similar to how you would prepare quinoa: rinse thoroughly, then combine one part djulis with two parts water in a pot, bring to a boil, reduce heat to low, cover, and simmer for about 15-20 minutes until the water is absorbed. Include djulis in your meals 2-3 times per week for dietary variety and potential health benefits.

Description

Djulis, also known as red quinoa, is a grain-like crop native to Taiwan. It is rich in nutrients and antioxidants, offering potential health benefits such as improved heart health and overall nutritional wellness.

Djulis (*Chenopodium formosanum*) is a cereal native to Taiwan, where it’s a key component of the indigenous diet. Djulis is rich in fiber, protein, and antioxidants [R].

How it helps

Consuming a djulis drink for 8 weeks may increase the elasticity, moisture, and collagen content of the skin while reducing wrinkles and textures [R].

Djulis is a rich source of antioxidants that may prevent skin aging [R].

40



Glutathione supplements

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take glutathione supplements orally, usually in pill or powder form, with a recommended dose ranging from 500mg to 1000mg daily, divided into two doses. It's best taken on an empty stomach or as directed by a healthcare professional. Continuous use is advised for sustained benefits, but consulting with a healthcare provider for personalized advice and duration is important.

Description

Glutathione (GSH) is your body’s strongest antioxidant. It has an enormous capacity to combat [oxidative stress](#) and neutralize harmful free radicals. Chemically speaking, glutathione is a tripeptide made up of 3 amino acids [\[R\]](#):

- [Glutamate](#)
- **Cysteine**
- [Glycine](#)

Low glutathione levels have been linked to cognitive decline, age-related disease, and general mortality among the elderly [\[R, R\]](#).

People take glutathione supplements to help with:

- Oxidative stress and detox
- Immune system support
- Skin aging and damage
- Exercise recovery
- Chronic diseases such as type 2 diabetes, Alzheimer's disease, Parkinson's disease, or COPD

How it helps

Both reduced and oxidized glutathione (250 mg/day for 12 weeks) reduced facial wrinkles while showing a trend for increased skin elasticity in a placebo-controlled trial of 57 healthy subjects [\[R\]](#).

41



Salmon Egg Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a salmon egg extract supplement daily, following the dosage instructions on the product label, which typically range from 500 to 2000 mg. Continue this regimen for at least 3 to 6 months to observe potential health benefits.

TYPICAL STARTING DOSE

500 mg

Description

Salmon egg extract is derived from the eggs of salmon and is often used in dietary supplements for its potential health benefits like heart health, due to being a source of essential omega-3 fatty acids and phospholipids, vitamins, and minerals that support overall well-being.

How it helps

A double-blinded trial of 66 healthy female volunteers found that salmon egg extract (1% and 5% in vehicle formulation for 56 days) improved wrinkles, pigmentation, redness, brightness, and hydration and led to global improvement of facial skin in a dose-dependent and time-dependent manner [\[R\]](#).

Salmon egg extract is rich in omega-3 fatty acids and proteins which nourish and hydrate your skin.

42



Flaxseed Oil

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 1 to 2 tablespoons (15-30 g) of flaxseed oil daily. It can be taken with or without food. For best results, use consistently for at least 2 months.

TYPICAL STARTING DOSE

15 g

Description

Flaxseed oil is a source of healthy fats, particularly alpha-linolenic acid (ALA), an omega-3 fatty acid. It can help support cardiovascular health and may have anti-inflammatory properties when used as part of a well-rounded diet.

[Flaxseed](#) is a common ingredient in bakery products. Some people also use it as a health food to support digestion [\[R\]](#).

Flaxseed is rich in many compounds, including [\[R\]](#):

- Vitamins and minerals
- Protein
- Fiber
- Omega-3 fatty acids ([ALA](#))

How it helps

In a [placebo-controlled trial of 45 women](#), consuming flaxseed oil (2.2 g/day fatty acids) for 12 weeks **increased skin hydration while decreasing reddening, water loss, roughness, and scaling** [\[R\]](#).

43



Oleamide

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 100-200 mg of oleamide supplement orally, 30 minutes before bedtime, daily. This regimen can be adjusted based on individual response but should not exceed 400 mg daily without consulting a healthcare provider.

TYPICAL STARTING DOSE

100 mg

Description

Oleamide is a naturally occurring compound found in the body that has been studied for its potential role in promoting relaxation and sleep.

How it helps

In a non-placebo-controlled trial of 55 women with photoaging, applying a cream with 0.1% retinaldehyde, glycylglycine oleamide, and pre-tocopheryl for 8 weeks reduced crow's feet wrinkles depth and volume, crow's feet and periorbital wrinkle length, and the number of fine lines and wrinkles as effectively as a glycolic acid peel. In the case of skin texture improvement, it was more effective [\[R\]](#).

Oleamide may boost skin hydration, thus enhancing the skin's overall plumpness and elasticity. In addition, it may improve skin barrier function.

44



Persimmon

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a dried persimmon supplement of 100-200mg daily, with water, preferably in the morning after breakfast. Continue this routine for at least 4-8 weeks to observe potential health benefits.

Description

Persimmon is a tropical fruit that comes from a variety of Diospyros trees . It has been used traditionally in Asian countries for centuries. Persimmons are a good source of nutrients, including vitamin A, vitamin C, dietary fiber, and various antioxidants like beta-carotene and flavonoids, which may support immune function and healthy skin.

How it helps

Recommendation references: [\[R\]](#)

In a placebo-controlled trial of 13 healthy men, applying emugels loaded with persimmon fruit extract 2x/day for 12 weeks increased skin moisture and elasticity, and reduced skin wrinkles (by 12.40%), roughness (by 11.76%), and scaliness (by 18.59) [\[R\]](#).

45



Green Tea

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume 400 mg of green tea extract daily. This can be taken in the form of capsules or tablets available that specify the amount of green tea extract. Ensure the supplement is taken according to the product's specific instructions, usually once a day with water.

TYPICAL STARTING DOSE

400 mg

Description

Tea is a beverage made by steeping the leaves of the *Camellia sinensis* plant in hot water. It comes in various types, including black, green, white, and herbal teas, and is known for its diverse flavors and potential health benefits due to antioxidants and other bioactive compounds.

[Green](#) and black tea are made from the same plant (*Camellia sinensis*). This plant is processed in different ways to make each type of tea [\[R\]](#), [\[R\]](#).

Tea contains antioxidants called **flavonoids**, which may help prevent [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heart disease
- Cancer
- Diabetes

How it helps

According to a placebo-controlled trial of 60 women, drinking green tea (containing 1,400 mg/day of catechins for 12 weeks) may protect the skin against the negative effects of UV radiation on elasticity and other skin parameters [\[R\]](#).

Please note: polyphenols from green tea may bind to iron and form insoluble complexes, which reduces iron absorption in the gut. If you have anemia, consult your healthcare provider before using green tea [\[R\]](#).

46



Bladderwrack

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 300-500 mg of bladderwrack supplement daily, preferably with meals to enhance absorption. It's recommended to start with the lower dose and gradually increase if needed. Consult with a healthcare provider before beginning, especially if you are pregnant, nursing, or have a medical condition like hyperthyroidism.

TYPICAL STARTING DOSE

300 mg

Description

Bladderwrack is a type of seaweed that has been used for its potential health benefits, including iodine content that supports thyroid function.

How it helps

In an uncontrolled trial, applying a gel with 1% bladderwrack on the cheeks 2x/day for 5 weeks decreased skin thickness while increasing skin elasticity [\[R\]](#).

Bladderwrack is high in antioxidants and has hydrating properties. Its application might plump up the skin, thus reducing the visibility of wrinkles, and protect it from skin aging due to oxidative stress.

47



Blood Orange Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500 mg of blood orange extract supplement daily with water, ideally in the morning with breakfast. Continue this regimen for at least 8 to 12 weeks to see potential benefits related to cardiovascular health and antioxidant effects.

TYPICAL STARTING DOSE

500 mg

Description

Blood orange extract is rich in antioxidants and vitamin C, potentially supporting immune health and providing protection against oxidative stress.

How it helps

Blood orange extract is rich in vitamin C, which boosts collagen production, reducing the appearance of wrinkles. It also contains powerful antioxidants which combat skin-damaging free radicals.

A 56-day study involving 110 Asian and Caucasian subjects showed that a daily intake of 100 mg of red orange extract improved UV protection, increased skin antioxidants, moisture, elasticity, and radiance while reducing melanin intensity, wrinkle depth, and TEWL [\[R\]](#).

48



Coenzyme Q10 (CoQ10)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a 100 mg Coenzyme Q10 (CoQ10) supplement once daily with a meal that contains fat for better absorption.

TYPICAL STARTING DOSE

100 mg

Description

Coenzyme Q10 (CoQ10) is a naturally occurring antioxidant that plays a crucial role in cellular energy production. It is often taken as a supplement to support heart health, improve energy levels, and provide antioxidant protection, especially for individuals with certain medical conditions or as they age.

[Coenzyme Q10](#) (CoQ10) is a compound that helps enzymes work better. By doing so, CoQ10 helps improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Energy levels
- Antioxidant protection
- Heart health
- Muscle strength
- Blood sugar control

The amount of CoQ10 made by your body decreases as you get older. Luckily, you can also get it from food or supplements. Good sources of CoQ10 include [\[R\]](#), [\[R\]](#):

- Organ meats
- Fatty fish
- Whole grains

How it helps

Taking coenzyme Q10 (50-150 mg/day for 12 weeks) may reduce signs of skin aging [\[R\]](#).

Supplements combining coenzyme Q10 and collagen may be more effective [\[R\]](#).

Coenzyme Q10 may help by reducing oxidative damage to the skin [\[R\]](#).

49



Lactobacillus Plantarum

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a probiotic supplement containing *Lactobacillus plantarum* 299V daily. The typical dosage is 10 billion colony-forming units (CFUs). Continue for at least 4 weeks to assess benefits on digestive health.

TYPICAL STARTING DOSE
10 billion CFU

Description

Lactobacillus plantarum is a [probiotic](#) bacterium found in many fermented plant products such as sauerkraut, pickles, brined olives, and Korean kimchi [\[R\]](#).

People take *L. plantarum* supplements to improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Diarrhea
- Skin appearance
- IBD
- High cholesterol

How it helps

Lactobacillus Plantarum promotes skin health by enhancing skin hydration and elasticity, helping to smooth out facial wrinkles. It also has strong antioxidant properties that fight against skin-damaging free radicals.

In a placebo-controlled trial of 21 participants, applying topical L. plantarum LB244R for 56 days **improved skin density, hydration, firmness, and elasticity, while decreasing trans-epidermal water loss and sub-epidermal low echogenic band thickness** [\[R\]](#).

Oral supplementation with L. plantarum HY7714 for 12 weeks **reduced wrinkle depth and increased skin elasticity (by 21.73%) and gloss** in a [placebo-controlled trial for 110 volunteers](#) [\[R\]](#).

50



Dietary Beta-Carotene

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Incorporate foods rich in beta-carotene into your diet daily. These include carrots, sweet potatoes, spinach, kale, and cantaloupe. Aim for at least one serving of these vegetables or fruits at each meal to ensure an adequate intake of beta-carotene.

Description

Beta-carotene is a type of dietary antioxidant and a precursor to vitamin A. It supports healthy vision, skin, and immune function, and may reduce the risk of certain diseases.

[Beta-carotene](#) is a plant-derived golden-yellow carotenoid pigment. In addition to its antioxidant activity, **beta-carotene is converted to vitamin A in the body**. Beta-carotene **contributes about 30-35% of the dietary intake of this vitamin** in western countries. In developing countries, it represents the most abundant, and sometimes the sole source of vitamin A [\[R\]](#), [\[R\]](#), [\[R\]](#)

Good sources of beta-carotene include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Fruits (apricots, peaches, persimmons, melons, citrus, tomatoes, etc.)
- Green vegetables (spinach, broccoli, parsley, collard greens)
- Orange tuber vegetables (carrots, sweet potatoes)

How it helps

A study on 30 women over 50 showed that beta-carotene supplementation (30 mg/day for 3 months) improved facial wrinkles and elasticity. A higher dose of 90 mg/day did not offer the same benefits [\[R\]](#).

Beta-carotene may help by increasing collagen production.

Please note: *While dietary beta-carotene is generally considered safe, beta-carotene supplements have been linked to heart disease and cancer, especially lung cancer. These links may be stronger in smokers. Make sure to consult your doctor before taking beta-carotene supplements* [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

51



Topical Honeybush

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Apply a thin layer of honeybush extract cream or gel to the affected area of the skin once or twice daily, allowing it to absorb fully. Continue usage for at least 2-4 weeks to see improvements in skin conditions such as irritation or inflammation.

Description

Honeybush extracts, obtained from the indigenous South African plant, are used topically for their potential antioxidant and anti-inflammatory effects. They may support skin health and soothe skin irritations.

How it helps

In a placebo-controlled trial of 120 participants with crow's feet wrinkles, applying honeybush extract (400-800 mg/day for 12 weeks) improved skin elasticity, hydration, and wrinkles [\[R\]](#).

52



Shark Cartilage

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take the shark cartilage supplement orally in capsule or powder form, following the dosage instructions on the product label, which is typically around 750 mg to 2000 mg per day, divided into two to three doses. It should be taken with meals to help with absorption. Continue daily for a period as suggested by a healthcare provider.

TYPICAL STARTING DOSE

750 mg

Description

How it helps

In a [placebo-controlled trial of 66 participants](#), applying blue shark cartilage on the wrists for 10-20 min **enhanced skin elasticity and hydration, and reduced wrinkles** [\[R\]](#).

53



Cocoa

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate 30-60 grams of high-quality dark chocolate (with at least 70% cocoa content) into your daily diet. Enjoy it as a snack or dessert to reap the potential heart health benefits.

Description

[Cocoa](#) comes from the beans of the *Theobroma cacao* tree. It is found any many foods and drinks, and people have also used it as a medicine for thousands of years. The numerous active components of cocoa can help with weight control, fatigue, mood, and digestion, among others.

[Cocoa](#) comes from the beans of the *Theobroma cacao* tree. It’s often used for making chocolate, hot chocolate, and pastries. People have also used it as a medicine for over a thousand years [\[R, R\]](#).

Cocoa contains many active components that likely help [\[R, R, R, R\]](#):

- Control weight
- Lower fatigue
- Boost mood
- Improve digestion
- Balance blood sugar
- Support heart health

Note that pure cocoa is likely a healthier choice than chocolate. If you eat chocolate, choose dark chocolate with more cocoa and less sugar and fat.

How it helps

According to two non-placebo-controlled trials of 136 participants, consuming cocoa flavanols (30 g/day chocolate or 320 mg/day flavanols for 12-24 weeks) may improve facial skin elasticity and wrinkles [\[R, R\]](#).

54



Bacillus Coagulans MTCC5856

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a supplement containing Bacillus coagulans MTCC5856 at a dose of 2 billion CFUs (colony forming units) once daily, either in the morning or evening, with or without food. Continue this regimen daily for a period of at least 4 to 8 weeks to assess its benefits on digestive health.

Description

Bacillus coagulans MTCC5856 is a specific strain of probiotic bacteria known for its potential to support digestive health and immune function. It's used in probiotic supplements to promote gut microbiome balance.

How it helps

In a placebo-controlled trial of 56 healthy women, applying the extracellular metabolite of *B. coagulans* MTCC 5856 (lactosporin) on the skin for 10 weeks reduced the visibility of the wrinkles around crow's feet, nasolabial folds, frown lines, and facial fine lines [R].

55



Thyme And Lecithin

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a thyme supplement in the form of capsules or oil, with a common dose of around 500 mg daily, combined with a lecithin supplement, typically in the range of 1200 mg taken 1-3 times per day. These supplements can be taken with meals to aid in absorption and minimize potential digestive discomfort.

TYPICAL STARTING DOSE

500 mg

Description

Thyme and lecithin are sometimes combined in dietary supplements. Thyme may offer antioxidant and antibacterial properties, while lecithin is a source of choline, which is essential for brain and liver health.

How it helps

According to a study on women, a topical anti-aging product containing thyme and lecithin (daily for 8 weeks) may reduce facial wrinkles by stimulating fat tissue production under the skin [R].

56

Strength Training

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Engage in strength training exercises, such as weight lifting or bodyweight exercises, for 60 minutes per session, 2 to 3 times per week. Ensure you work all major muscle groups and rest each muscle group for at least 48 hours before exercising it again.

TYPICAL STARTING DOSE

1 hour

Description

Strength training, also called resistance or *anaerobic* training, contracts the muscles against an external resistance for short periods of time. This helps gain muscle strength, tone, and mass. This can include activities like weight lifting, pushups, and crunches.

Strength training, also known as resistance training, is a type of physical exercise that uses resistance to build strength, anaerobic endurance, and size [\[R\]](#). Some of the most common strength training methods include [\[R\]](#):

- Weight lifting
- Bodyweight exercises like push-ups, pull-ups, squats, and lunges.
- Resistance bands
- Plyometrics or explosive force exercises

The benefits of strength training are numerous, and include [\[R\]](#):

- Increased muscle strength
- Improved bone health
- Reduced risk of injury
- Improved balance and coordination
- Enhanced mood
- Boost metabolism

Consult with a doctor before starting any new exercise program, especially if you have any health conditions.

How it helps

A study with 56 middle-aged Japanese women, who typically didn't exercise, found that resistance training (75–80% of the repetition maximum, 2x/week for 16 weeks) improved skin's elasticity and its underlying structure. Interestingly, resistance training also increased the thickness of the skin, which can often decrease with age [\[R\]](#).

57



Pomegranate Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 250 to 500 mg of pomegranate extract once daily, preferably with a meal to enhance absorption. This should be continued consistently for at least 4 weeks to observe potential health benefits.

TYPICAL STARTING DOSE

250 mg

Description

Pomegranate extract is derived from the fruit of the pomegranate tree, a plant that has been used traditionally for thousands of years, from the Mediterranean to Asia. Pomegranate extract is often used today in supplements due to its high levels of antioxidants like punicalagins and anthocyanins, which may support heart health and reduce inflammation.

[Pomegranates](#) are red fruits that contain seeds covered by edible sweet coats. They are rich in antioxidants [\[R\]](#), [\[R\]](#).

Pomegranate may reduce inflammation and support heart health. People use pomegranate seed oil and peel in cosmetics and traditional medicine [\[R\]](#), [\[R\]](#).

How it helps

Drinking fermented pomegranate extract (50 mL/day for 8 weeks) may improve skin elasticity, moisture, and collagen content [\[R\]](#).

Pomegranate may help by reducing oxidative damage to the skin [\[R\]](#).

58



Green Tea Extract

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a green tea extract supplement containing 250-500 mg of EGCG (the active compound in green tea) daily, preferably with a meal to enhance absorption. This dosage is typically split into two separate doses, taken in the morning and later in the day. Continue this regimen for at least three months to observe potential health benefits.

TYPICAL STARTING DOSE

250 mg

Description

Green tea extract is a concentrated form of the beneficial compounds found in green tea, such as catechins. It is used in dietary supplements for its potential to enhance metabolism, aid in weight management, and provide antioxidant protection.

[Green tea](#) is made from the same plant as black tea (*Camellia sinensis*). However, the leaves and buds are processed differently [\[R\]](#).

Green tea contains **catechins**. These are antioxidants that help prevent [oxidative stress](#) [\[R\]](#).

EGCG is the main catechin found in green tea. It may help reduce inflammation and support weight loss [\[R\]](#).

How it helps

The combination of green tea oral supplements (300 mg, 2x/day) and green tea cream (10%) improved the content of elastic tissue in the skin in an 8-week placebo-controlled trial of 40 women [\[R\]](#).

Please note: polyphenols from green tea may bind to iron and form insoluble complexes, which reduces iron absorption in the gut. If you have anemia, consult your healthcare provider before using green tea [\[R\]](#).

59



Methylsulfonylmethane (MSM)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 1 to 3 grams of Methylsulfonylmethane (MSM) per day, divided into three doses. This can be in the form of capsules or powder that is mixed with water. It is recommended to start with a lower dose to assess tolerance, then gradually increase to the desired dose over a period of 1 to 2 weeks.

TYPICAL STARTING DOSE

1 g

Description

MSM is a naturally occurring sulfur compound found in foods and used in dietary supplements. It has anti-inflammatory properties and may be used to support joint health and reduce exercise-related muscle soreness.

A molecule of MSM is broken down in the body into a sulfate (sulfur) group and two methyl groups.

The following may increase people’s needs for sulfur and methyl groups: physical activity, recovery from injuries, inflammation, infections/sickness, toxins, etc.

People also need more sulfur when taking hormones (DHEA, pregnenolone, etc.), drugs (Aspirin, Tylenol, NSAIDs, birth control, etc.) or supplements (flavonoids & polyphenols - resveratrol, quercetin, curcumin, etc.) that undergo sulfation.

How it helps

MSM may improve facial wrinkles through its role in regulating skin-related genes, enhancing skin firmness, and improving overall skin tone and texture. This supplementation appears to target the molecular mechanisms associated with skin health, resulting in the reduction of fine lines and wrinkles.

A study examined the impact of 3 grams of oral methylsulfonylmethane (MSM) supplementation on skin health. MSM regulated skin-related genes and significantly improved skin firmness, reduced crow's feet, and enhanced skin tone and texture. Further research is needed to validate these findings and understand the mechanism of action [R].

60

Topical Avocado Oil and Saffron

IMPACT1 / 5

EVIDENCE1 / 5

Description

Avocado oil has some vitamin E, other fatty acids, and antioxidant properties. The fat content is 65-70% oleic acid.

Saffron extract is derived from the saffron crocus flower and contains compounds like crocin and safranal. It is used topically for its potential to brighten skin tone and improve complexion, addressing concerns related to uneven skin pigmentation.

How it helps

In a study where volunteers applied a cream containing avocado oil and saffron extract for 12 weeks, participants saw improvements in skin elasticity. 30% and 45% of participants showed at least one-grade improvement in wrinkle grading after 6 and 12 weeks, respectively. Furthermore, there was a significant reduction in the area and volume of nasolabial folds, which are the lines that run from the side of the nose to the corners of the mouth, commonly associated with aging. Elasticity measures of the skin also showed a significant increase after the 12-week treatment [R].

Saffron may help by fighting oxidative stress [R].

Avocado may help by [R]:

- Softening and moisturizing the skin
- Increasing collagen production

61



Vitamin C

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500-2000 mg of vitamin C supplement daily. It can be taken at any time of the day, with or without food, according to personal preference or tolerance.

TYPICAL STARTING DOSE

2000 mg

Description

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Foods rich in Vitamin C include: [\[R\]](#)

- Citrus Fruits
- Peppers
- Brussel sprouts
- Kiwi
- Broccoli
- Tomato
- Cantaloupe
- Cauliflower
- Spinach

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

How it helps

Another systematic review of 7 studies involving 139 people with melasma, a condition causing brown patches on the skin, showed that skin treated with topical vitamin C tended to be smoother and less wrinkled. Additionally, vitamin C was found to lighten skin pigmentation and improve skin hydration [\[R\]](#).

However, more focused high-quality research in which vitamin C is used alone is needed to truly understand how effective it is at reducing wrinkles [\[R\]](#).

Vitamin C may help by [\[R\]](#):

- Fighting oxidative stress
- Protecting against UV-induced aging
- Increasing skin collagen levels

62



Avocado

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate half to one whole avocado into your daily diet. You can add it to salads, sandwiches, or use it as a healthy fat substitute for spreads or dressings.

Description

Avocado is a nutrient-dense fruit known for its creamy texture and healthy monounsaturated fats. It is packed with vitamins, minerals, and dietary fiber, and may support heart health, skin health, and overall nutrition.

[Avocado](#) is a fruit first cultivated in Mexico in 500 BCE [\[R\]](#), [\[R\]](#).

You can eat it raw in salads, sandwiches, and dips. Avocado oil has recently become popular, but it’s much less nutritious than the whole fruit.

Avocado is rich in antioxidants, vitamins, minerals, and fiber. It may support [\[R\]](#):

- Heart health
- Healthy weight
- Healthy aging

How it helps

In a non-placebo-controlled trial of 39 women, consuming one avocado per day for 8 weeks improved facial skin elasticity and firmness [\[R\]](#).

63



Apigenin

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 50-100 mg of apigenin supplement daily, preferably with a meal to enhance absorption. This dosage is suggested based on studies for general health benefits and should be continued as long as it contributes positively to your well-being, or as directed by a healthcare professional.

TYPICAL STARTING DOSE

50 mg

Description

Apigenin is a flavonoid compound found in various plants, including parsley, chamomile, and celery. Its potential health benefits include anti-inflammatory and antioxidant properties.

How it helps

In a placebo-controlled trial of 40 women, applying 2 g of cream with apigenin for 4 weeks increased dermal density and elasticity, reduced fine wrinkle length, and improved skin evenness, moisture content, and TEWL [\[R\]](#).

Apigenin may help by neutralizing harmful free radicals and promoting collagen production.

64



Flaxseed

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume 2 tablespoons of ground flaxseed daily. You can add it to your breakfast cereal, smoothies, or salads.

TYPICAL STARTING DOSE

2 tbsp

Description

Flaxseed is a nutrient-dense food that's high in fiber and omega-3 fatty acids. It may contribute to heart health, promote digestive regularity, and help manage cholesterol levels when included in a balanced diet.

[Flaxseed](#) is a common ingredient in bakery products. Some people also use it as a health food to support digestion [\[R\]](#).

Flaxseed is rich in many compounds, including [\[R\]](#):

- Vitamins and minerals
- Protein
- Fiber
- Omega-3 fatty acids ([ALA](#))

How it helps

Flaxseed oil is packed with nutritious fatty acids, particularly omega-3s, which may help to replenish the skin's natural oils, improving hydration and reducing appearance of wrinkles. Additionally, its antioxidant properties can help protect skin cells from damage by free radicals, which contributes to aging.

In a [placebo-controlled trial of 45 women](#), consuming flaxseed oil (2.2 g/day fatty acids) for 12 weeks **increased skin hydration while decreasing reddening, water loss, roughness, and scaling** [\[R\]](#).

65



Rose Hip

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a 500 mg rose hip supplement daily, preferably with a meal to aid absorption.

TYPICAL STARTING DOSE

500 mg

Description

Rose hip is the fruit of the wild rose plant and is commonly used in various forms, such as oil or extract. It's rich in nutrients like vitamin C, antioxidants, and essential fatty acids, making it valuable for skincare and immune health.

Rose hips are round fruits found on rose plants [\[R\]](#).

They’re a **good source of vitamin C and other antioxidants**. Some compounds in rose hips are also **anti-inflammatory** [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Rose hip supplements are rich in antioxidants and vitamins, such as vitamin C, which helps to stimulate collagen production, necessary for maintaining skin's elasticity and strength, hence reducing facial wrinkles. They also have anti-inflammatory properties that can help to reduce puffiness and redness on the skin.

In a non-placebo-controlled trial of 34 healthy volunteers with crow’s feet wrinkles, ingesting powder made from rose hip seeds and shells for 8 weeks improved crow's-feet wrinkles, skin moisture, and skin elasticity as effectively as astaxanthin [\[R\]](#).

66



Topical Saffron

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Apply a thin layer of saffron-infused cream or oil directly to the affected area of the skin once or twice daily. Continue this application regularly for at least 4 to 6 weeks to observe potential benefits.

Description

Saffron extract is derived from the saffron crocus flower and contains compounds like crocin and safranal. It is used topically for its potential to brighten skin tone and improve complexion, addressing concerns related to uneven skin pigmentation.

How it helps

In a study where a cream containing avocado oil and saffron extract was applied by volunteers for 12 weeks, participants saw improvements in skin elasticity. 30% and 45% of participants showed at least one-grade improvement in wrinkle grading after 6 and 12 weeks, respectively. Furthermore, there was a significant reduction in the area and volume of nasolabial folds, which are the lines that run from the side of the nose to the corners of the mouth, commonly associated with aging. Elasticity measures of the skin also showed a significant increase after the 12-week treatment [R].

Saffron may help by fighting oxidative stress [R].

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Phytase

IMPACT

0 / 5

EVIDENCE

0 / 5

Description

Phytase is an enzyme that helps break down phytic acid, a form of phosphorus stored in plants, which can hinder the absorption of essential minerals like iron, calcium, and zinc in the human body. By enhancing the bioavailability of these minerals, phytase can contribute to better nutrition and overall health [R].

How it helps

A study of 77 people explored if oral zinc supplementation could enhance botulinum toxin treatments for facial wrinkles and certain spasms. It found that zinc citrate (50 mg/day) and phytase (3,000 PU/day) led to a nearly 30% increase in the duration of the toxin's effects [R].

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Lingonberry

IMPACT

0 / 5

EVIDENCE

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How to implement

Take 400 mg of lingonberry supplement daily with a glass of water, preferably in the morning with your breakfast for at least 8 to 12 weeks to observe beneficial effects.

TYPICAL STARTING DOSE

400 mg

Description

Lingonberries are rich in antioxidants and vitamins, supporting immune health and potentially reducing the risk of chronic diseases. Their consumption may also promote urinary tract health and help manage blood sugar levels.

How it helps

In a study involving 99 healthy women, the impact of lingonberry (25-50 mg/day) and amla fruit extract (30-60 mg/day) on skin health was tested over 12 weeks. Results showed improvements in skin elasticity, thickness, and moisture along with a reduction in wrinkles [\[R\]](#).

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Alpha-Ketoglutarate (AKG)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take alpha-ketoglutarate (AKG) as a dietary supplement in a dose of approximately 1-2g per day, preferably with meals to aid in its absorption. The exact dosage may vary based on the specific product and individual health needs, so it's important to follow the label instructions or consult a healthcare provider for personalized advice. This supplementation can be ongoing, with periodic evaluations to assess its effects on your health.

TYPICAL STARTING DOSE

1 g

Description

Alpha-ketoglutarate (AKG) is a key molecule in the Krebs cycle, crucial for energy production in cells. It plays a role in amino acid synthesis and nitrogen transport. In supplement form, it's claimed to improve athletic performance and support recovery, but the scientific evidence for these benefits is limited.

How it helps

Alpha-Ketoglutarate (AKG) may support skin hydration and elasticity through its role in collagen and elastin synthesis. Collagen and elastin are key structural proteins in the skin, contributing to its firmness and elasticity.

AKG, as a critical molecule in the Krebs cycle, is involved in the production of energy needed for the synthesis of these proteins. It also serves as a precursor for the amino acids like proline and lysine, essential for collagen formation. Additionally, its potential antioxidative properties may protect skin cells from oxidative stress, which can degrade collagen and elastin.

In cultured human dermal fibroblasts, α-KG stimulates procollagen production and activates prolidase, an enzyme involved in collagen metabolism. In UVB-irradiated hairless mice, topically applied α-KG reduces wrinkle formation [R].

Alpha-ketoglutarate (Alpha-KG), an important metabolic intermediate, has shown skin benefits. In vitro tests revealed that Alpha-KG promotes skin hydration, barrier function, and cell proliferation. Clinical testing demonstrated reduced wrinkles, improved firmness, and increased skin gloss with Alpha-KG. Rice fermented liquid containing Alpha-KG is a promising ingredient for skin care products, offering potential benefits for skin health [R].

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Amla

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate 1-2 teaspoons (approximately 4-8 grams) of amla powder into your daily diet. You can mix it into a glass of water, blend it into a smoothie, or sprinkle it over salads or cooked meals. Do this consistently every day for best results.

Description

Amla, also known as Indian gooseberry, is a fruit known for its high vitamin C content and antioxidant properties. It is used in traditional Ayurvedic medicine for various health benefits, including immune support and skin health.

How it helps

In a study involving 99 healthy women, the impact of lingonberry (25-50 mg/day) and amla fruit extract (30-60 mg/day) on skin health was tested over 12 weeks. The results showed improvements in skin elasticity, thickness, and moisture along with a reduction in wrinkles [\[R\]](#).

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Thyme

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take thyme supplements in the form of capsules or pills, following the dosage instructions on the product label, usually once or twice a day with meals. It is important to consult with a healthcare provider before starting any new supplement regimen.

Description

Thyme is an aromatic herb used in cooking and herbal remedies. It contains essential oils and antioxidants and is known for its potential antibacterial and anti-inflammatory properties, supporting respiratory health.

How it helps

According to a study on women, a topical anti-aging product containing thyme and lecithin (daily for 8 weeks) may reduce facial wrinkles by stimulating fat tissue production under the skin [\[R\]](#).

Next Steps

Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.

