

Your Guide To
AGING WELL AND
LOOKING YOUTHFUL



Science-backed anti-aging
natural strategies that go
beyond skincare

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Understanding Skin Aging

Aging is inevitable—and our skin, the body's largest organ, shows it first. The face, neck, hands, arms, and legs are especially vulnerable to visible changes over time. But the way we live—our habits, routines, and lifestyle—has a major impact on how our skin ages and how we feel throughout our lives.



Your skin isn't

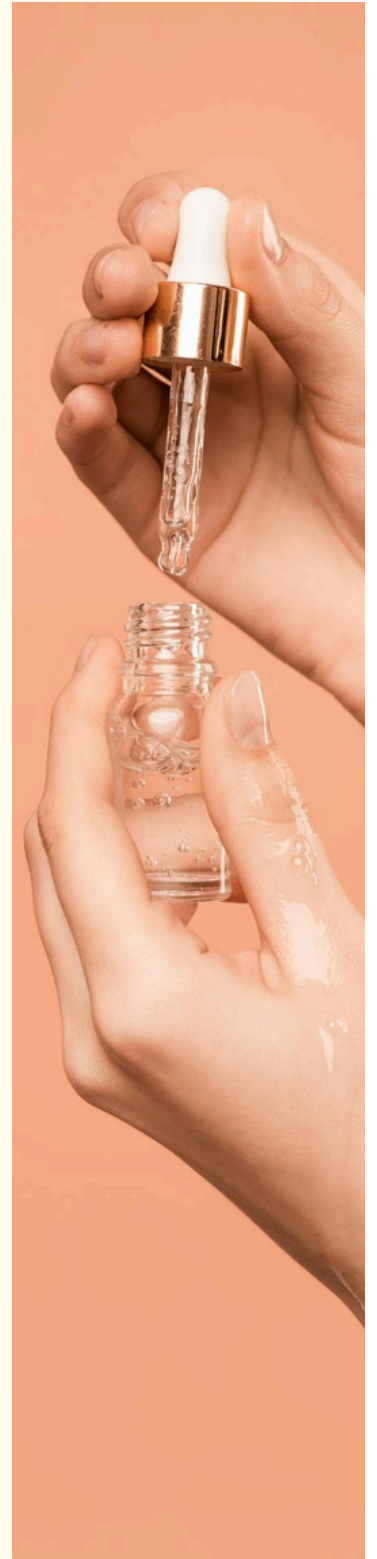
just about looks.

It protects your body from harmful bacteria and viruses, UV radiation and injuries, and it helps produce Vitamin D and regulate your body temperature.

In women, skin continues to thicken until around the ages of 25 to 30. After that point, all layers of the skin begin to thin gradually. This decline is most noticeable in areas exposed to the sun. Components like collagen, elastin, and hyaluronic acid begin to decline, leading to reduced firmness and elasticity. Blood vessels become more fragile, increasing the tendency to bruise. Sebaceous glands produce less oil, which can lead to dryness. Pigmented spots may also begin to appear as melanin production becomes uneven.

How Skin Ages

1. **Intrinsic aging** is a natural, gradual process driven by internal factors such as genetics, hormonal changes and immune function. Over time, the accumulation of reactive oxygen species (ROS) leads to oxidative stress, which gradually damages skin structures. Chronic stress can also indirectly speed up aging through hormonal and immune responses.
2. **Extrinsic aging** is largely influenced by environmental and lifestyle factors. Chronic exposure to UV light is the most significant, also known as photoaging. Photoaging triggers oxidative stress and inflammation, increasing skin damage. Other external contributors include pollution, smoking or vaping, poor diet, lack of exercise and the presence of skin or systemic diseases.





Hormones & The Skin

1. The age-mediated decline in estrogen correlates with a decrease in elastin and collagen, linked to the appearance of wrinkles .
2. Higher androgen levels (male hormones) negatively impact the skin. In women with PCOS, they are largely associated with acne.
3. Progesterone is also important for skin hydration and elasticity, although it stimulates sebum production and acne.



Nutrition plays a vital role. Water, protein, trace minerals like zinc, copper, and selenium, along with vitamins A, B–complex, C, D, and E, are all essential for maintaining healthy skin.



Vitamin C in Food:

- yellow peppers: one provides 380% DRI
- black currants: 56 g (1 cup) provides 113% DRI
- kale: 100 g provide 103% DRI
- kiwi: one kiwi provides 62% DRI
- broccoli: 100 g provide 72% DRI
- strawberries: 1 cup (166 g) provides 108% DRI
- oranges: one orange provides 92% DRI
- mandarin oranges: one provides 27% DRI

*DRI: Daily Recommended Intake

Vitamin C

Vitamin C stabilizes collagen's triple helix structure, supports iron absorption, enhances selenium bioavailability, and reduces UV-induced oxidative stress that leads to wrinkles and pigmentation. It also promotes wound healing by boosting collagen production and strengthens the skin barrier while improving hydration. Its derivatives can lighten dark spots by decreasing melanin synthesis, offering benefits for conditions like melasma or age spots.

Vitamin A

Vitamin A and its derivatives—such as retinoids and carotenoids—play a crucial role in skin health by regulating how skin cells grow, differentiate, and renew themselves. Retinoids, found mostly in animal-based foods, are the active forms of vitamin A, while plant-based foods provide provitamin A carotenoids like beta-carotene, which the body converts into usable retinoids. These compounds are known for their antioxidant properties, helping to neutralize free radicals and reduce oxidative stress in the skin. Beta-carotene, in particular, acts as a natural internal photoprotector, and studies have shown that regular dietary intake can help reduce UV-induced redness and skin damage.

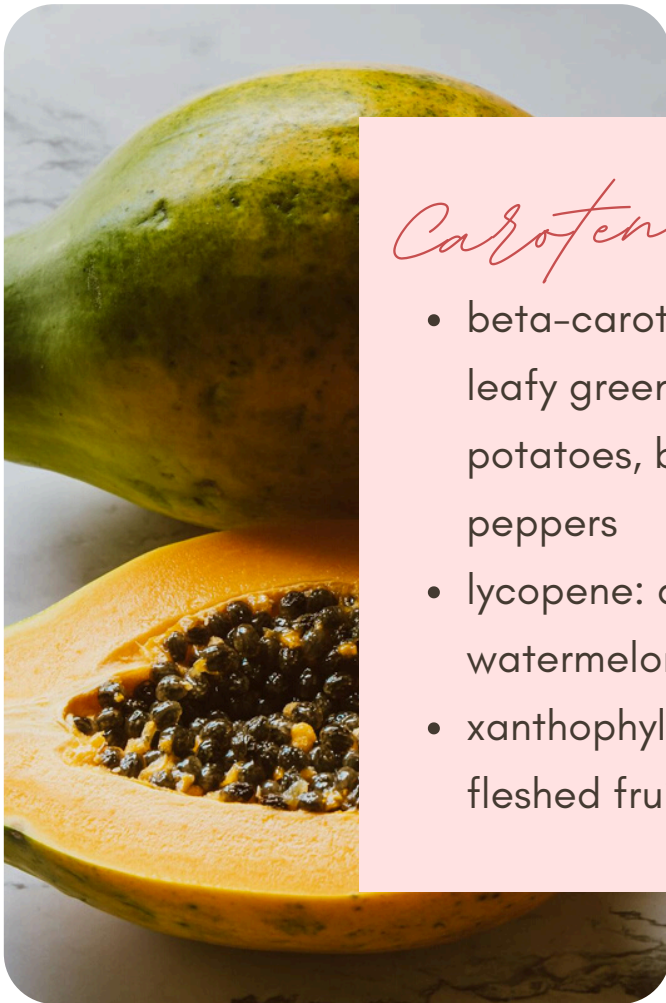


Retinol in Food:

- beef liver: 100 g 860% DRI
- eggs: one egg provides 8% DRI
- bluefin tuna: 100 g provide 84% DRI
- goat cheese: 28 g provide 9% DRI
- whole milk: one cup provides 72% DRI
- clams: 100 g provide 11% DRI

also other cheeses, liver from other animals

*DRI: Daily Recommended Intake



Carotenoids in Food:

- beta-carotene: carrots, cantaloupe, dark leafy greens (kale, spinach), sweet potatoes, broccoli, red and yellow peppers
- lycopene: all tomato products, watermelon, pink grapefruit, papaya
- xanthophylls: pumpkin, kale, yellow-fleshed fruits

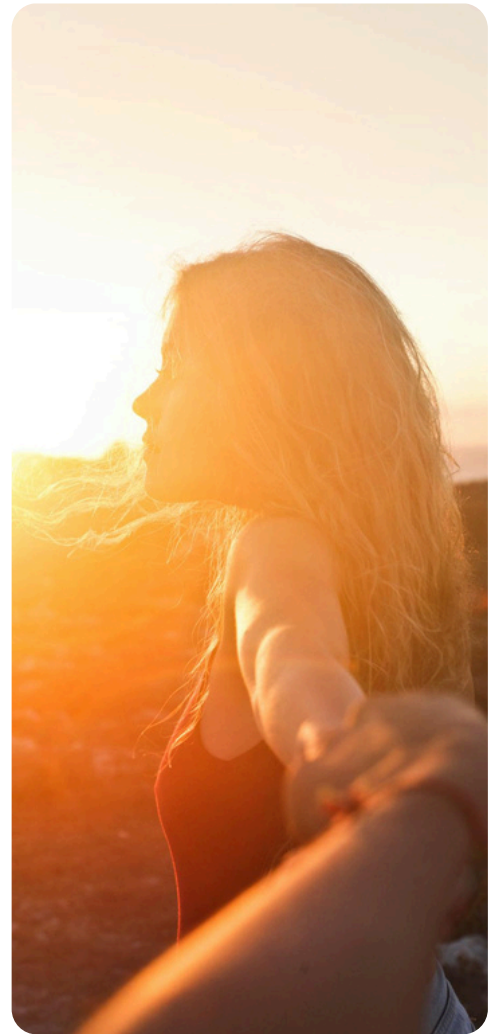
Topical retinoids are widely used in dermatology to prevent the breakdown of collagen caused by sun exposure and to support the production of new collagen, improving skin texture and firmness.

However, high-dose supplementation—especially in smokers—has raised concerns. The CARET study, for example, reported a potential link between high intakes of retinyl palmitate and beta-carotene and an increased risk of lung cancer, reminding us that more is not always better when it comes to nutrients, even natural ones.

Vitamin D

Vitamin D is synthesized in the skin when exposed to UVB sunlight, beginning with a compound called 7-dehydrocholesterol. One of its most important roles in the skin is to support the immune system by enhancing antimicrobial defense and helping regulate inflammation.

As we age, however, the skin's ability to produce vitamin D declines significantly. In fact, studies show that by the age of 80, levels of its precursor can drop by about 50% compared to those in younger individuals.



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This makes vitamin D—along with calcium—an essential nutrient to supplement in older adults, not only for bone health but also to help maintain resilient, healthy skin.



Vitamin E in Food:

- almonds: 30 g provide 45% DRI
- hazelnuts: 30 g provide 29% DRI
- sunflower seeds: 30 g provide 49% DRI
- avocados: one provides 28% DRI
- kiwis: one provides 7% DRI
- salmon: half a fillet provides 14% DRI

*DRI: Daily Recommended Intake

Vitamin E

Vitamin E is a powerful antioxidant found in cell membranes. It's easily depleted by sun exposure, yet plays a critical role in preventing collagen breakdown and UV-induced damage. When combined with vitamin C, together they offer enhanced photoprotection, significantly reducing sunburn and UV-induced inflammation. This synergistic effect makes the combination especially powerful in anti-aging skincare.

Folic Acid

Folate, a B-vitamin well known for its role in DNA synthesis and repair, is also crucial for maintaining healthy skin. Because skin cells regenerate rapidly, they have a high demand for folate to support continuous renewal. Interestingly, the skin increases its uptake of folate in response to UV exposure, likely as a protective mechanism against photoaging. Adequate folate levels help support normal skin cell metabolism and contribute to a smoother, more youthful appearance.



Folic Acid in Food:

- lentils: 1 cup cooked (200 g) provide 90% DRI
- kidney beans: one cup cooked (177 g) provide 33% DRI
- asparagus: 90 g provide 34% DRI
- eggs: one egg provides 6% DRI
- beets: one cup (136 g) provides 37% DRI
- oranges: one provides 14% DRI
- beef liver: 85 g cooked provide 54% DRI

*DRI: Daily Recommended Intake



Zinc in Food:

- red meat: 100 g ground beef provide 50% DRI
- oysters: 6 provide 300% DRI
- lentils: 100 g provide 14% DRI
- hemp seeds: 30 g provide 30% DRI
- cashews: 30 g provide 17% DRI
- eggs: one provides 5-7% DRI

*DRI: Daily Recommended Intake

Zinc

Zinc is a trace mineral essential to over 200 enzymatic processes in the body. It plays a protective role by absorbing harmful UV radiation and shielding skin cells from photodamage. Zinc also helps regulate inflammation and supports wound healing, making it a critical component in the treatment of conditions like acne.

In combination with vitamin C, zinc exhibits antimicrobial effects that can help clear skin infections and support overall immune defense. Because the body does not store zinc long-term, maintaining an adequate dietary intake is vital for sustaining healthy, resilient skin.

Selenium

Selenium is another powerful mineral, crucial for protecting the skin against oxidative damage from UV exposure. It supports the function of glutathione peroxidase and other selenium-dependent antioxidative enzymes. By reducing oxidative stress, selenium helps prevent cellular damage that can accelerate aging and increase the risk of skin disorders.



Selenium in Food:

- Brazil nuts: 6-8 provide 10x DRI!
- tuna, sardines, halibut, shrimps: 100 g provide almost 100% DRI
- ham: 100 g provide 50% DRI
- wholegrain bread: 2 slices provide $\frac{1}{3}$ DRI
- eggs: one provides 25% DRI
- cottage cheese: one cup provides 36% DRI

*DRI: Daily Recommended Intake



Copper in Food:

- cooked spinach: 100 g provide 33% DRI
- cashews: 30 g provide 67% DRI
- almonds: 30 g provide 33% DRI
- dried shiitake mushrooms: four provide 89% DRI
- oysters: 100 g provide 844%! of the DRI

*DRI: Daily Recommended Intake

Copper

Copper contributes to skin vitality by supporting collagen and elastin production, the two proteins that give skin its structure and elasticity. It acts as an antioxidant and is also involved in the maturation of collagen fibers, enhancing skin firmness and thickness. Copper peptides, found in skincare formulations, have been shown to promote wound healing and tissue regeneration. Together with other minerals and vitamins, copper helps strengthen the skin barrier.

Advanced Glycation Endproducts (AGEs)

Advanced glycation end products, or AGEs, are harmful compounds formed when sugars bind to proteins or fats- both in the body and in the food. In the skin, AGEs weaken important structural proteins like collagen and elastin, leading to reduced strength, elasticity, and slower wound healing.

Factors like sun exposure, smoking, alcohol, obesity, and dry high-temperature cooking environment (frying or grilling) can speed up AGEs formation. Diets rich in whole foods and cooking methods such as boiling or steaming can help keep AGEs levels low and protect skin health. The food groups highest in AGEs include fatty meats, full-fat dairy products (especially cheeses) and highly processed foods. On the bright side, switching up the cooking methods can significantly reduce AGEs content in those foods.



Unhealthy Habits



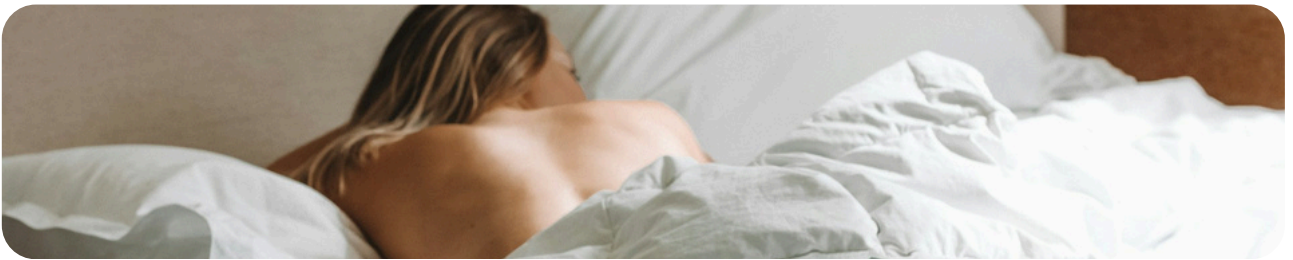
Regular alcohol consumption (two drinks per day) can dehydrate the body and deplete essential vitamins and minerals, while also increasing inflammation and oxidative stress. This not only slows skin cell renewal but also weakens antioxidant defenses.

Smoking visibly accelerates skin aging. It reduces skin tone and elasticity, deepens wrinkles—especially around the mouth and eyes—and makes people appear older than their actual age, even after a short smoking history. Vaping has similarly harmful effects, contributing to both skin damage and serious respiratory issues.

A high-fat diet and obesity also play a damaging role in skin health. Obesity (BMI over 30) is linked to systemic inflammation and a wide range of chronic diseases, including several skin conditions. Between 60 to 70 percent of individuals with obesity experience issues like eczema, psoriasis, dermatitis, infections and poor wound healing.

Lifestyle Factors

1. Even one night of poor sleep can lead to visible changes—like dark circles and a tired appearance—particularly around the eyes. Sleep deprivation raises cortisol levels, which weakens the immune system, reduces T cell function, and increases the risk of infections.



2. Regular physical activity boosts circulation, delivering oxygen and nutrients while flushing out toxins. Exercise also stimulates collagen production, strengthens the skin barrier, and improves elasticity and tone, helping to delay visible aging.



3. Social connection is just as important. Studies have found that older adults who experience social isolation have higher levels of inflammatory markers, all linked to poorer health outcomes.
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Aging Is Inevitable, But How You Age Is Largely Up to You

While aging is a natural biological process, how it shows up in your skin is deeply influenced by the way you live. Nutrition, sleep, movement, mental well-being, and social connection all play critical roles in maintaining youthful appearance. It's not just what you apply to your skin, but how you care for your body and mind that determines the rate and quality of skin aging.

Taking care of all of this is not just lifestyle goals—it is the essential skin-care strategy.



Thank you!

In the end, healthy skin is not just about beauty—it's a reflection of inner health, balance, and how well we care for ourselves, inside and out.



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