



## DO YOU MAKE THESE SKIN CARE MISTAKES?

A Complete Guide to Preserving Your Natural Beauty

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*'Do not regret growing older. It is a privilege denied to many.'*  
*Author unknown.*

## THE AGING FACE

There are few things other than death and taxes that are certain. The aging process is one of them. If we learn more about the process of our changing face, we can make better decisions in maintaining our daily skincare routines. This eBook will lay out the basics for you.

## COMMON SIGNS OF AGING

### 20's

- Facial aging begins
- Our body stops producing ceramides, the molecules that surround and nourish skin cells. This results in dryer, flakier skin.
- Skin firmness begins to decrease
- Fine lines, blemishes, and sunspots (lentigines) will start to appear
- The early signs of Crow's feet appear around the eyes
- Wrinkles appear on the forehead with movement

### 30's

- The production of collagen and elastic fibers slows down. As a result, skin elasticity is reduced.
- Fine lines and wrinkles become more apparent, specifically forehead lines, frown lines, crow's feet, smile lines, lip lines, marionette lines, and sagging

### 40's

- The early signs of marionette lines appear at the outer edge of the lips
- The cheeks sag as they lose volume
- The under-eye area darkens, some may begin to notice under eye bags

- Wrinkles and lines start to appear deeper and more permanent
- Larger pores appear on the nose
- Fine blood vessels appear on the cheeks and around the nasal opening

### 50's

- Once firm skin now sags
- A collection of wrinkles crisscrosses the skin in high movement areas
- Deep nasolabial folds cause the cheek to sag around the edges of the chin.
- Deep marionette lines cause the skin to droop around them.
- The signs of sun damage are noticeable as darkened spots on the entire skin

### 60's

- Continued reduction of facial fat and bone structure causes the cheeks and eye sockets to appear more hollowed.
- Hair thinning continues.

### 70's and beyond

- All the above continues to progress

## YOU CAN MODIFY ALL AGING INFLUENCERS EXCEPT GENETICS AND AGE

**Intrinsic or natural aging** begins in our mid 20's and continues steadily throughout life. Genetics plays a key role, allowing us to either thank or blame our parents.

**Extrinsic aging** results from a combination of external factors such as exposure to *UV radiation, skin care products, antioxidants, supplements, diet, stress, pollution and smoking.*

Extrinsic aging makes up most of the aging process and can be controlled with lifestyle changes and preventative measures.

**An Ounce of Prevention is Worth a Pound of Cure.** While we cannot control our genetics or age, we can control basically all remaining aging influencers.

You can slow your aging process by avoiding the mistake of not paying attention to the 12 *Beautiful Skin Secrets* discussed in this eBook.

## EXPOSURE TO UV RADIATION

Sunlight is the main source of UV rays. Tanning lamps and beds are also sources of UV rays. UV exposure accelerates the skin aging process by causing:

- Breakdown of **collagen**, the supporting structure of our skin
- Breakdown of **elastin**, which gives our skin its resilience and bounce
- Loss of **hyaluronic acid**, which holds water and gives skin its volume
- Damage to **DNA**, which can cause cancer
- Shortening of **telomeres** (the 'caps' on our chromosomes)

You will typically accumulate 80% of your lifetime sun damage before turning 20.

At that time, collagen production will decline by 1% per year and skin thickness will decrease around 7% every decade.

**Protecting your skin from the sun keeps it looking its best.** There is no such thing as a safe, healthy or protective tan, since tanning itself is the result of DNA damage to your skin. Skin damage from UV radiation, whether from a tanning bed or the sun, starts within minutes. It takes just one damaged skin cell to start a skin cancer.

The #1 rule for younger looking skin is UV protection.

### *BEAUTIFUL SKIN SECRET #1:*

**Apply sunscreen every morning, even if you do not expect to go outdoors.**

Apply a teaspoon portion to face, neck, upper chest and hands.

If you plan to expose the rest of your body to the sun for more than 20 minutes, apply sunscreen to your legs, shoulders, arms, back, and feet, too.

**Staying indoors will not protect you. UVA is virtually inescapable.** It is present in the same amount throughout the day, 356 days a year, entirely independent of climate conditions. UVA does not only penetrate car windows and T-shirts, but it also reaches your skin during fog, rain and even blizzards.

Many car manufacturers install laminated windshields that filter out UVB light, the main cause of a burn and a tan, but not UVA light, which penetrates your skin more deeply.

The A in UVA is for aging. These rays are not only responsible for premature fine lines, wrinkles and dark spots, but also increase your risk of skin cancer.

The SPF number only indicates your protection against burning UVB light, but nothing about how well a sunscreen protects you against aging and cancer-causing UVA light.

*BEAUTIFUL SKIN SECRET #2:*

**Mexoryl SX is the most effective UVA (A=Aging) block available in the US.**

It is therefore particularly useful in lowering your risk of skin cancer, fine lines, wrinkles, brown spots, yellow discoloration, and sagging skin.

Mexoryl SX is made by the Paris-based skin-care giant La Roche-Posay.

The brand name is **Anthelios SX**.

US Americans have fewer choices and notably poorer protection from UVA rays in their sunscreen options than Europeans.

According to a study published in 2015, US sunscreens allow, on average, 3 times more UVA rays to pass through to skin than European products, which included the modern UVA filters.

So far, the FDA has approved 4 ingredients protective against UVA: mexoryl, zinc oxide, titanium dioxide and avobenzone (trade name Parsol 1789).

Between 2003 and 2010, sunscreen makers applied for FDA permission to use 8 sun-filtering chemicals developed by European companies. Four of those – **tinosorb S, tinosorb M, mexoryl SX and mexoryl XL**, are more effective than avobenzone, the most common UVA filter permitted by the FDA.

When its most recent round of sunscreen regulations went into effect in December 2012, the FDA set lax standards for UVA protection, in part because good UVA filtering ingredients had not been approved.

Those regulations allowed nearly every sunscreen product to be marketed as 'broad spectrum,' a term that implied good UVA protection, which many products do not provide.

## TIPS FOR STAYING SAFE IN THE SUN

- While daily sunscreen use reduces UV exposure, clothing cover and seeking shade are even more effective
- Cover up with clothing, including a broad-brimmed hat and UV-blocking sunglasses, a great defense against crow's feet around your eyes.
- Always seek the shade outdoors, especially between 10:00 am and 4:00 pm.
- Wear sunscreen every day and even when you are staying indoors.
- Sunscreens should be used on babies over the age of 6 months. Keep newborns out of the sun.
- Examine your skin head-to-toe every month
- See your physician every year for a professional skin examination.
- Avoid tanning booths!

If you really desire a tan, consider using a **topical sunless tanning** product such as

Derma Spa Summer Revived Fair to Medium Skin Body Lotion	(Dove)
Flawless Coconut Tanning Serum for Face & Body	(Fake Bake)
Instant Self-Tanning Mousse Medium	(St. Moriz)
Liquid Sunshine Tinted Self-Tanner	(Arbonne)
Self Tan Towelette Classic	(Tan Towel)

*BEAUTIFUL SKIN SECRET #3:*

**Polypodium Leucotomus extract helps prevent sunburn and reduces photoaging.**

The dietary supplement **Heliocare** (Ferndale Healthcare) is derived from a fern native to Central and South Americas. This natural extract is packed with antioxidant properties that help maintain your skin's ability to protect itself against the aging effects of free radicals.

Taken daily prior to sun exposure, this antioxidant also helps melasma, vitiligo, polymorphic light eruption (a rash caused by sun exposure), and post inflammatory hyperpigmentation. In addition, it helps protect patients on sun-sensitizing medications such as doxycycline. **Heliocare should always be used in combination with topical sunscreen.**

*BEAUTIFUL SKIN SECRET #4:*

**Topical retinoids stimulate your skin to make its own collagen, elastin, and hyaluronic acid.**

**This improves fine lines, lack of elasticity, dark spots, and potentially stretch marks.**

**Please begin using topical retinoids in your mid 20's or early 30's but avoid them during pregnancy and nursing.**

Vitamin A and its derivatives, also known as retinoids, are the gold standard ingredients in topical antiaging products.

Retinoids minimize the appearance of wrinkles, bolster your skin's thickness and elasticity, slow the breakdown of collagen (which helps keep skin firm), and lighten brown spots caused by sun exposure.

Prescription-based topical retinoids include **tretinoin** (Retin-A), **adapalene** 0.3% (Differin), and **tazarotene** (Tazorac).

The most recognized prescription name of tretinoin is **Retin-A**. Some alternatives include **Atralin**, **Avita**, **Refissa**, **Renova**, **Tretin-X**, and **Ziana**. Tretinoin has 2 FDA approved indications: acne and photodamage.

The optimal dosing of tretinoin is a balance between rejuvenation and side effects, mostly redness, scaling, dryness, and itch. All 4 effects are dose dependent, occur mostly early in treatment and resolve gradually.

They are seen in the majority of patients using 0.05% concentrations daily and in upward of 90% of patients treated with 0.1% concentrations.

*BEAUTIFUL SKIN SECRET #5:*

**You can minimize or even avoid the retinoid-related side effects by starting with tretinoin just once or twice a week and slowly working your way up.**

Mixing tretinoin with moisturizer will make topical retinoids even more tolerable.

Topical **niacinamide** 2% will further minimize irritation. Retinoids can make eczema or rosacea worse.

### **YOUR NIGHT-TIME SKIN CARE ROUTINE**

1. GENTLE CLEANSER: e.g. Renaissance Cleansing Gel (Oskia)
2. SERUM: e.g. Regenerating Skin Nectar (Alastin)
3. MOISTURIZER: e.g. Multi-Active Nuit Crème (Clarins)
4. RETINOID: starting at your chin, apply a pea-size amount in upward and outward motions. You may consider retinoids also for your neck, chest, and hands.

**Maintenance** therapy does not require concentrations greater than 0.01% applied daily or 0.05% three times weekly.

Even though every case is different, tretinoin 0.0125% – 0.025% should work well for most patients with **dry skin**, 0.025% – 0.05% would be appropriate for **combination skin**, and 0.05% – 0.1% for **oily skin**.

Over-the-counter options include **retinol**, **retinyl linoleate**, **retinyl palmitate**, and **retinaldehyde**.

**Retinol is the most potent over-the-counter retinoid.** Most retinol-containing products are not sufficiently concentrated to completely address all your skin aging issues. Retinol must be converted to tretinoin to become biologically active. Therefore, **retinol is likely 20-fold less effective than tretinoin.** If retinol were applied at concentrations high enough to have similar effects as tretinoin, the side effect profile would be similar.

Retinol can induce skin rejuvenation at doses in the range of 0.4% to 1.0%.

**Most commercial products contain subtherapeutic concentrations below 0.08%.**

**Tazarotene** 0.1% cream and **tretinoin** 0.05% cream are equally effective after 24 months for fine lines, lentigines, and mottled hyperpigmentation (Kang S et al, 2001).

*BEAUTIFUL SKIN SECRET #6:*

**Soy and vitamin C are skin-smoothing retinoid alternatives that do not compromise your baby's safety during pregnancy and nursing**

**Soy's** estrogen-like effects may worsen melasma.

Positively Radiant Intensive Night Cream (Aveeno) comes without this risk.

**Vitamin C** promotes collagen production and fights free radicals.

Options include Super Antioxidant Serum (Paula's Choice) and Freshly Juiced Vitamin C Serum (Klairs).

*Beautiful Skin Secret #7*

**Hyaluronic acid acts as a moisture magnet for your skin**

The goal of wrinkle prevention is to stop the loss of hyaluronic acid, collagen, and elastin, three skin components that decrease with age.

**Hyaluronic acid** is a sugar molecule naturally found in our skin and joints.

Its key skincare attribute is that it can hold over 1,000 times its weight in water, making it an excellent hydrator and able to plump out fine lines.

Topical agents that stimulate our skin to make its own hyaluronic acid, collagen, and elastin, include topical retinoids and antioxidants. They should be included in your skin care routine.

**Topical retinoids** should be used at night only (Differin may be used in the morning), while **topical vitamin C** products should be applied in the morning: Vitamin C lotion 15 % (Revision Skincare)

**Topical hyaluronic acid** can diminish fine lines and wrinkles, improve skin elasticity, and boost skin firmness:

Mineral 89 Daily Skin Booster Serum and Moisturizer	(Vichy)
Hyalu B5 Serum	(La Roche-Posay)
Intense Hydrating Booster	(Sarah Chapman)

**Oral vitamin C** does not only improve your skin texture, but also also wound healing, sunburn, eczema, and reactive skin darkening.

Fresh fruits and vegetable contain vitamin C. Five servings per day are recommended. Adults may also take **500 mg** vitamin C every 12 hours.

### *Beautiful Skin Secret #8*

#### **Slow Aging From The Inside Out (I): Antioxidants = Anti-Aging**

In addition to using retinoids and hyaluronic acid, antioxidants are another vital ingredient in your antiwrinkle program because they block the harmful effects of free radicals. Free radicals are oxygen molecules that have an *odd* number of electrons.

They prefer an *even* number, so they steal electrons from vital skin components such as DNA and cell membrane lipids. This process promotes aging and cancer.

Almost all available topical formulations containing antioxidants contain low concentrations that are not well absorbed by our skin. Intake by mouth is therefore likely to yield better results.

**Vitamin C** reduces fine lines by stimulating collagen production. A daily dose of **1,000 mg** is adequate for many adults.

**Coenzyme Q10 (CoQ10)** firms the skin and improves fine lines.

CoQ10 is naturally produced in our body to help convert food into energy. Recent research suggests that CoQ10 helps reduce wrinkles and alleviate age-related issues.

However, not everyone is deficient in CoQ10. Thus, you may not need to take this supplement, specifically, since there can be potentially harmful side effects, including blood clots. Please be sure to talk to your doctor to make sure CoQ10 is right for you. Recommended doses range from **50 to 200 mg every morning**.

**Green tea** contains a powerful antioxidant called **EpiGalloCatechin Gallate (EGCG)** that fights DNA damage from UV rays to prevent skin cancer. Green tea is also a potent anti-aging ingredient that combats signs of aging when ingested or applied topically. It is frequently recommended to drink **3 to 5 cups** of green tea every day. Too much green tea may cause diarrhea, so please be aware of your intake.

*Beautiful Skin Secret #9*

### **Slow Aging From The Inside Out (II): Supplements**

Your DNA is located within the nuclei of your cells, where it is bundled within structures called chromosomes. Telomeres are little protective tips at the end of our chromosomes. Telomere shortening is associated with aging.

**Adequate omega-3 fatty acids allow better telomere maintenance.** The easiest way to ensure that may be a daily supplement containing 1,000 mg of lemon-flavored *cod liver oil* from Carlson. You will also find omega-3s in *flaxseeds* and in oily fish such as *salmon*.

**A high intake of Vitamin D protects telomeres.** It also lowers the risks of cardiovascular conditions, cancer, type 2 diabetes, childhood dental caries, periodontitis, autoimmune conditions, infectious diseases, and neurological conditions such as Alzheimer's and multiple sclerosis.

Foods naturally containing vitamin D include oily fish such as *salmon, mackerel,* and *herring, mushrooms* exposed to sunlight or that are sun-dried, and *cod liver oil*.

The recommendations for vitamin D intake of **400-1000 IU, 600-1000 IU** and **1500-2000 IU** daily for children under 1 year, children 1-18 years and all adults, respectively to treat and prevent vitamin D deficiency by the Endocrine Society is reasonable. The Endocrine Society agreed that **4,000 IU** daily is reasonable as the upper limit for children but for adults **10,000 IU** daily is more reasonable especially since obese individuals require 2-3 times more vitamin D. Your blood level should never fall below **60 ng/ml**. Recommended brands include *Thorne* (caps & liquid drops), *Designs for Health & Nutrigold*.

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**Vitamin B12** is essential for cell reproduction. Vegans and vegetarians tend to be deficient. You are likely deficient if you have premature appearance of fine lines, brittle hair or nails, acne, or dry skin. Vitamin B12 rich foods include *watermelon, walnuts, and shellfish*. Some medications interfere with the absorption of vitamin B12, resulting in often-unrecognized deficiencies. These include *oral contraceptives, antibiotics, and acid-blocking medications*. The recommended daily amount of vitamin B12 for adults is a scant **2.4 mcg**. But because aging and common drugs interfere with vitamin B12, it is frequently recommended to take **500 – 1,000 mcg** daily.

**Zinc** is essential for good health. It is slowing fine line formation at the molecular level and prevents hair thinning. Foods that are high in zinc include *shellfish, beans, lentils, nuts, whole grains, and eggs*. Women require 12 mg/day and men require **15 mg**/day.

**Biotin** is needed for maintaining healthy skin, hair and nails. There is no recommended dietary allowance established for biotin. Adults frequently take **25 mcg**/day.

*Beautiful Skin Secret #10*

### **Slow aging from the inside out (III): The anti-inflammatory diet**

You are what you eat. A healthy diet is rich in fresh fruit and vegetables, omega-3 fatty acids, flax seeds, fish oil or evening primrose oil supplements and limited in red or processed meat and high fat or sugar foods. The most natural approach would be adding salmon and sources of free fatty acids.

### **Sugar = Wrinkles**

Eating sugar triggers a chain reaction that results in inflammation, a breakdown of healthy collagen and even sagging skin. Too much sugar damages your cells and causes premature aging. While it is unclear as to how much consumption is necessary to damage your skin, we know that refined sugars are more harmful than other carbohydrates, as they tend to have a greater effect on insulin levels.

*Beautiful Skin Secret #11*

**Slow Aging From The Inside Out (IV): Minimize Stress By Thinking Positive**

The more chronically stressed we are, the shorter our telomeres become. Nobel laureate Dr. Elizabeth Blackburn conducted research on mothers caring for children with autism and other chronic conditions and found that mothers who were more resilient to stress, perceiving their situation as challenge, rather than something hopeless or overwhelming, kept their telomeres longer.

*“The foods you eat, your response to emotional challenges, the amount of exercise you get, whether you were exposed to childhood stress, even the level of trust and safety in your neighborhood—all of these factors and more appear to influence your telomeres and can prevent premature aging at the cellular level.”*

*Beautiful Skin Secret #12*

**Free-radical Damage From Air Pollution Accelerates Skin Aging**

Smoking is beyond detrimental to your skin. Not only is smoke filled with harmful chemicals like nicotine, tar, nitric oxide and carbon monoxide, but it also ruins collagen levels internally.

Secondhand smoke affects your skin greatly because collagen-destroying enzymes (MMPs) ramp up when exposed to it, causing increased wrinkling and visible aging. Air pollution also triggers fine lines, wrinkles, and dark spots.

**Grape seed extract, turmeric, and vitamin C** appear to have a protective effect. Nightly use of a sonic cleansing device such as **Clarisonic** should be followed by application of moisturizer.

## YOUR MORNING SKIN CARE ROUTINE

### 1. GENTLE CLEANSER

#### **Renaissance Cleansing Gel (Oskia)**

*For all skin types, particularly combination, Dr. Esche's favorite*

#### **Daily Microfoliant (Dermalogica)**

*Extremely gentle exfoliator for all skin types. Daily exfoliation with non-abrasive ingredients helps promote skin cell turnover without removing natural oils. Serums and treatments will be absorbed more easily.*

*The grainy white powder turns into a paste when water is added. **Rice bran** and **rice extract** exfoliate physically, **papain** and **salicylic acid** exfoliate chemically, **licorice** brightens and evens tone.*

#### **Meyer Lemon Creamy Cleanser (Andalou Naturals)**

*Best for normal to combination skin*

#### **Cleansing Milk with Gentian (Clarins)**

*Best for combination to oily skin*

#### **Cleansing Milk with Alpine Herbs (Clarins)**

*Best for normal to dry skin*

#### **Soy Face Cleanser (fresh)**

*Best for dry skin, extragentle do-it-all cleanser, removes even mascara*

### 2. ANTIOXIDANT SERUM

#### **Regenerating Skin Nectar (Alastin)**

*For all skin types. **TriHelix** technology helps support your skin's natural ability to produce collagen and elastin, **naringenin** with **panthenyl triacetate** is an antioxidant with calming properties, **phytoene** & **phytofluene** are antioxidants*

*extracted from saltwater micro-algae, **arnica montana** extract has calming properties. Can be used on face, neck, and chest. Dr. Esche's favorite*

### **Vitamin C Lotion 15% (Revision Skincare)**

*For all skin types*

## **3. MOISTURIZER**

### **Ceramidin Cream (Dr. Jart +)**

*Best for dry and sensitive skin, it really hydrates without adding oiliness to your T-zone*

### **Liquid Gold 24 Hour Moisture Repair Cream (Alpha-H)**

*For mature, parched skin*

### **Moisture Surge Intense Skin Fortifying Hydrator (Clinique)**

*For very dry to dry combination skin*

### **Hydra-Essentiel Silky Cream (Clarins)**

*For normal to dry skin*

### **Hydrance Optimale Rich Hydrating Cream (Eau Thermale Avene)**

*Avene is renowned for its sensitive skin-friendly products*

## **4. SUNSCREEN**

### **UVA Block: Anthelios SX SPF 15 (La Roche-Posay)**

*The higher SPF version is only available abroad. Mexoryl is the #1 individual ingredient in terms of protection from UVA. UVA does not cause sunburn, it causes aging and skin cancer. This is a chemical sunscreen that works by absorbing sunrays. Please wait 20 minutes before going in the sun.*

UVB Block: **Mineral Tinted Crème Broad Spectrum SPF 30 UVA–UVB Sunscreen**  
(MDSolarSciences)

*This is a physical sunscreen that works instantly by reflecting sunrays. Use over Anthelios SX on sunny days*

## 5. (MAKEUP)

### YOUR NIGHT-TIME SKIN CARE ROUTINE

1. GENTLE CLEANSER
2. ANTIOXIDANT SERUM
3. MOISTURIZER
4. RETINOID

## FURTHER READING

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