

Daily Skin Care: What's Your Routine?

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Disclosures

- No relevant financial disclosures
- Discussion of off-label use of tretinoin for anti-aging

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2



Objectives

1. Discuss the benefits and limitations of a daily skin care routine
2. Identify characteristics of different topical products and how they contribute to overall skin health based on specific patient needs and preferences
3. Discuss how emerging evidence in treatment strategies can change skin care routines over the decades

3



What is Skin Care?

- For the sake of this talk:
 - Prevention of skin cancer
 - Cleansing
 - Maintaining moisture
 - Anti-aging

4



A True Routine Seems Complicated

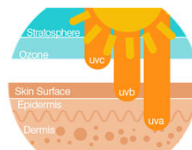
- Protect
- Clean
- Moisturize
- Prevent
- Support



5

Ultraviolet (UV) Radiation

- Broken up into UVA, UVB, and UVC
 - UVA: sunrise to sunset
 - UVB: peaks from approximately 10 a.m. to 2 p.m.
 - UVC: does not penetrate to the Earth's surface
- UVA passes through glass, while UVB does not
- Both UVA and UVB lead to skin aging and skin cancer
- Broad spectrum: UVA and UVB protection



6



Protect

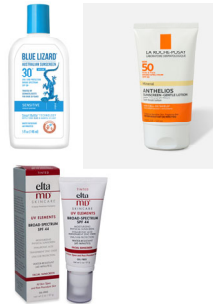
- Sunscreen types
 - Physical
 - Chemical
- SPF: commonly 15-100
 - Recent study demonstrated that higher SPFs provide further protection
- Features of each type of sunscreen provide benefits

7



Physical/Mineral Sunscreen

- Active ingredient scatters light
 - Zinc oxide or titanium dioxide
- All physical sunscreens are broad spectrum
- Good for sensitive skin
- Higher SPFs can leave a chalky residue
 - I recommend a tinted physical blocker at SPF 30+



8



Chemical Sunscreen

- Active ingredients convert UV radiation into small amounts of heat
 - Avobenzone
 - Octocrylene
 - Oxybenzone
 - Several others
- All are not broad spectrum
- More likely to cause skin reactions
- Present in the bloodstream but with unknown significance
- Higher SPFs without causing chalky residue



9



Sunscreen Use

- Should use 1-2 ounces for an adult
 - Children under the age of 6 months should not use sunscreen
- Should reapply:
 - Every two hours
 - After swimming or excessive sweating
 - Any time a towel is used
 - Waterproof/sweatproof: 80 minutes of protection



10



Clothing as Protection

- All fabrics have some UV blocking capabilities
- The more tightly woven, the higher the blocking
- This is called the UV protection factor (UPF), and is considered nearly equivalent to SPF
 - Cotton shirt: UPF 15
 - Polyester shirt: UPF 50
 - Jeans: UPF 1,700
- No need to reapply!



11



Moisturize

- Maintaining moisture provides multiple benefits
 - Improved texture
 - Improved appearance
 - Decreased inflammation (itch)
- Pay attention to words
 - Lotions, creams, and ointments are significantly different
- As we age, our skin produces fewer natural moisturizers which leads to drier skin



12

Cleanse

- Clean skin is an important aspect of overall health
- Cleansers are usually separated into body, face, and shampoo
- Several additives can be put into these products



Facial Cleansers

- Several varieties, and with several active ingredients; most commonly:
 - Benzoyl peroxide: used to treat acne and reduce inflammation; can cause bleaching of towels/linens
 - Salicylic acid: used to treat acne and acts like a very weak superficial chemical peel; may cause irritation and peeling



Extras in Facial Cleansers

- In addition to the active ingredients, other properties may include
 - Exfoliating: should be avoided with sensitive skin
 - Moisturizing: this is unlikely to replace a moisturizer
 - Support: may contain peptides and small molecules; these may eliminate the need for additional serums



Soaps

- An important aspect of the texture and tone of the skin of the body
- Many scents, dyes, additives
- As a rule, sensitive soaps are recommended, as many of the above lead to dryness and irritation



Types of Moisturizers

- Ointment: petroleum jelly
- Cream: ointment with water added
- Lotion: cream with more water and alcohol



Skin Moisture and Aging

- As we age, our skin produces less natural moisturization factor, leading to drier skin as we get older
- Dry skin is a significant contributor to itch
- Moisturizers that used to be effective, like lotions, may no longer provide enough moisturization
- Once skin becomes dry, moisturizing once per day is no longer enough to rehydrate the skin
- Skin that is dry can have a wrinkled appearance



Which Moisturizer?

- Many factors
 - Cost
 - Texture on skin
 - Ingredients



19



General Recommendations

- Creams or ointments
- For accomplishing strictly moisturization, basic is better
- Once per day application of moisturizers may not be adequate
- If it feels good on your skin, use it!

20



For Some in Attendance

- For most individuals, a consistent routine using sunscreen and moisturizer is all that would be needed for overall skin health
- Photoaging is what we can prevent with sun protection, but other aspects of skin aging will occur even with the most diligent use of sunscreen

21



Skin Aging: What Can I Do?

- The most important: sun protection!
- Further benefit: retinoids
- More in-depth prevention: botulinum toxin
- Correction: lasers and fillers



22



Sun Protection

- All the anti-aging techniques discussed after would be nearly useless without proper UV protection
- If you are by a window, you are still getting UVA
 - UVA is thought to contribute more to photoaging than UVB
- Don't forget UPF clothing



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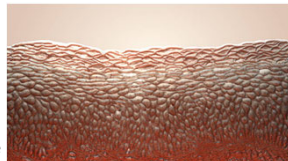
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23



What Happens to Aging Skin?

- Loss of normal collagen and elastin
 - Resulting in saggy, wrinkled, and more easily bruised skin
- Loss of subcutaneous fat
 - Results in accentuated aged appearance
- Loss of natural moisturization factor
 - Increasingly dry skin that may lead to itch and irritation



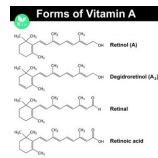
Retinoids

- Vitamin A analogs
- Well known for their use in the treatment of acne
- Provide several benefits for the skin
 - Help to regulate amount of oil produced by the skin
 - Decrease inflammation that can lead to acne
 - Promotes even pigmentation
 - Increases natural hyaluronic acid
 - Increases collagen
- Can cause irritation and dryness
- 3 categories



Types of Retinoids

- Retinols and retinals: available over-the-counter
- Retinoic acids: prescription (tretinoin and tazarotene), and over-the-counter (adapalene)



Retinols and Retinals

- These are the retinoids that are seen on most commercials
- Their anti-aging properties are less than that of retinoic acids, but they cause less irritation and dryness
- Even a few years ago, these would have been more affordable than prescription retinoids (more to come)



Adapalene

- Retinoic acid that was previously available only as a prescription
- Found in several over-the-counter preparations
- A wide range of prices, and until recently, almost all would have been more affordable than prescription tretinoin



28



Tretinoin and Tazarotene

- Available by prescription only
- FDA approved for treatment of acne
 - Use for anti-aging is considered off-label and is not covered by insurance
- The most significant anti-aging properties of any topical product
- Mail order compounding pharmacies have made these topicals significantly more affordable
- Irritation and dryness are the most common side effects
 - This can be reduced by using every other night or every third night

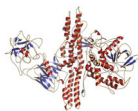


29



Botulinum Toxin

- Neurotoxin derived from the bacteria *Clostridium botulinum*
- There are 8 subtypes, but all will behave similarly
- FDA approved for the treatment of wrinkles (rhytides)
- "Treats" wrinkles by paralyzing specific muscles that are used for facial expressions
- Common misconception that this will eliminate wrinkles
 - It is a preventive measure
- Requires treatment every 3-4 months for maximal effect



30





Support

- Newer research has revealed that the natural properties of collagen in the skin may be improved with the use of various peptides and small molecules
 - Hyaluronic acid
 - Ascorbic acid (vitamin C)
 - Tocopherols (vitamin E)

Hyaluronic Acid

- A naturally occurring glycosaminoglycan in the skin
- Absorbs over 100 times its weight in water
 - This allows increased structural support and a more youthful appearance
- Found in several beauty products and cosmeceuticals
- Primary ingredient in dermal fillers
 - More effective as an injectable



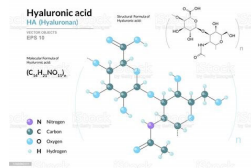
Ascorbic Acid

- More commonly known as Vitamin C
- Helps to promote healthy collagen, according to newer research
- Found in several over-the-counter products



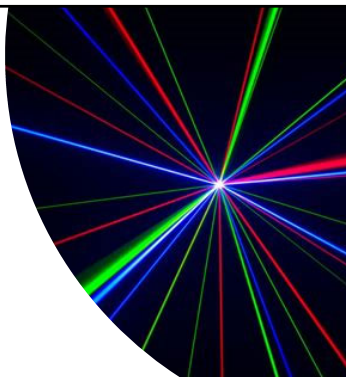
Dermal Fillers

- As we age, we lose subcutaneous fat, which is most evident on the face
- Dermal fillers are used to replace the lost volume
 - This is a way to remove wrinkles
- The most common is hyaluronic acid, but several other varieties exist
- Typically, last for 6-12 months, though some formulations are considered permanent



Lasers

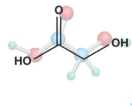
- Can improve and potentially remove sunspots and redness
- More in-depth procedures can be used for facial contouring and reduction of fine lines and wrinkles
 - Require strict sun protection for several weeks for greatest benefit



Chemical Peels

- Several types of acids, each with a different depth of penetration
- The deeper a chemical peel the more drastic the difference but with a longer healing period

Glycolic Acid



Salicylic acid



Wrapping Up

- Skin routines can be straightforward or more complex, depending on your goals
- Even the best topical daily regimen will not be able to prevent all signs of aging, but there are strategies to improve, if desired
- Changes in aging skin require changes to our daily routine and your desired outcome will determine how aggressive your routine should be



Nebraska Medicine Dermatology Retail Store

- Hand selected products from our dermatologists
 - Products from Pierre Fabre, elta MD, Revision Skincare, and SkinCeuticals
- Available at our Lauritzen Outpatient Center and Elkhorn clinic locations





