



Dermatology in the Older Adult: The care and science

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Disclosures

- Speaker's Bureau for Abbvie, Beiersdorf, Eli Lilly, Janssen, Sanofi Genzyme, Sanofi-Aventis/Regeneron®, and Sun Pharma
- Strategic Advisor and Medical Board Member: Arcutis Biotherapeutics, Incyte Labs, Leo Pharma, and Novartis.
- No experimental or investigational use of drugs or devices will be presented.

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Objectives

- At the end of this presentation, the participant will be able to:

1. Define the integument in later years.
2. Learn to assess, diagnose and treat the most common benign geriatric skin conditions.
3. Become familiar with the more serious geriatric skin conditions.

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Tips



- References
 - Listed throughout and at the end of the presentation
- To facilitate your learning
 - Specific tables/images can be viewed full page at the end of your handout.

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Facts and Figures

- Fastest growing segment of population is age 85 years and older.
- By 2030, 20% of all Americans will be older than age 65 years, same as pediatric size.
- National Center for Health Statistics (NCHS) found incidences of dermatologic conditions are quickly rising.

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National Center for Health Statistics

"We need to explicitly incorporate principles of geriatrics in the practice of dermatology in the same way principles of pediatrics have been incorporated into dermatology for decades."

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Geriatric Dermatology

"...old age, to which all wish to attain, and at which all grumble when attained."¹

~Cicero, Treatises on Friendship and Old Age, 65 B.C.

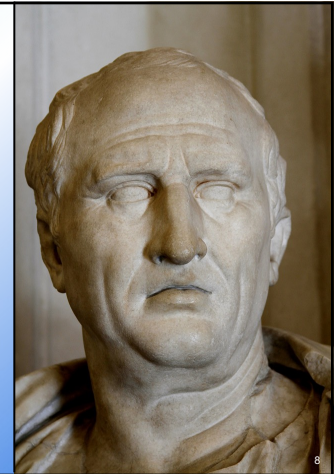


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Why have geriatric dermatology?

- Serves a specific population with common needs
- Encompasses a distinct group that continues to grow at a rapid rate
- Comes with many dangerous, life-threatening skin conditions at a particularly vulnerable time in life

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Why have geriatric dermatology? (continued)

- Often presents with difficult multi-disorders, polypharmacy, and broad adverse effects panel
- Poor nutrition slows wound healing.
- Immune system response delayed.
- Functional status may be impaired.
- OTC self-medication and reliance on supplements confuse treatment.

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The Breakdown by Gerontologists

- Ages: The young-old (65 to 74 years), middle-old (75 to 84 years), and old-old (85+ years)
- Two British scholars, Paul Higgs and Chris Gilleard, have expressed that there is a period in life of active retirement, followed by a marked slowing down, and then a final age “of inactive, unhealthy, unproductive, and ultimately unsuccessful aging.”²

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My 94-year-old father; what AI predicts I will look like at 94.



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Challenges of Our Elderly – Physical

- Hearing loss
- Walking and falls
- Bone density loss
- Eyesight worsens
- Chronic disease and pain
- Dental problems
- Sleep disorders
- Dietary challenges, taste loss
- Urinary incontinence
- Vocal cords weaken

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Challenges of Our Elderly – Mental

- Fear and anxiety
- Depressed mood
- Extreme caution
- Stubbornness to change
- Mental disorders
- Reduced cognitive ability
- Loss – Family, loved ones, work, home, travel, meaningful employ and socialization

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Father of Modern Pharmacology

“All substances are poisons; there is none which is not a poison. The right dose differentiates a poison and a remedy.”³

~von Hohenheim, MD



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Medication-related Skin Disorders

- Beta-blockers worsen psoriasis.
- Antibiotics worsen photo-sensitivity.
- Statins: A culprit in severe pruritus
- Home remedies complicate already difficult situations.
- Liver and kidney processes slow and increase drug toxicity in the body.

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Some More Fast Facts⁴

- In 1990, Americans ages 65+ years and older were 29.6% of the population.
- In 2010, Americans ages 65+ years and older were 38.6% of the population.
- By 2050 there will be more Americans ages 65+ and older than under 14 years of age.

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Some More Fast Facts⁴ (continued)

Americans aged 90 years and older tripled in the past 30 years and are expected to quadruple in the next 20 years.

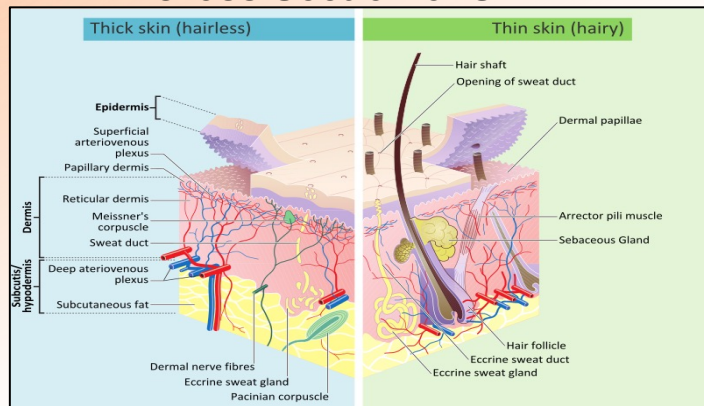


Image source: From I Craig from Glasgow, Scotland. (2005). Nurse in Geriatrics. (<https://commons.wikimedia.org/w/index.php?curid=3114293>) CC BY 2.0

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Cross Section of Skin



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Key Changes in Older Skin

- Loss of subcutaneous fat loosens the skin and loss of collagen decreases strength and pliability.
- Sebaceous glands secrete less oil. The skin becomes dry and flaky.
- Tamponade is sometimes nonexistent because of blood thinners, and small bleeds lead to complications.

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Key Changes in Older Skin (continued)

Cumulative UV damage from sun exposure and blistering burns result in skin cancer.



Basal cell carcinoma

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Key Changes in Older Skin (continued)

With hormonal changes, hair follicles stop producing hair, and melanocytes produce color unevenly, making “liver spots” and contributes to easier bruising.



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Key Changes in Older Skin (continued)



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- Melanocytes may completely stop producing melanin, as in the hair gradually turning gray or white.
- There are some developments and research to slow the trend, and even reverse the process.

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Key Changes in Older Skin (continued)

- Thinner skin with less fat increases pressure sores, as activity decreases.
- Thermoregulation is poor, patient requires increased heating because *of the cold*.
- Perfusion is dramatically slowed because of circulation, which leads to poor repair and increased rates of infection.

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The Concept of Inflammageing

- Immunosenescence is a concept that refers to age-related changes of immunity, particularly as we age.
- Inflammageing is a risk factor for many common diseases in older individuals.
- Congestive heart failure, cognitive impairment, chronic kidney diseases and pain, diabetes, high blood pressure, obesity and many other ailments increase proinflammatory markers in blood and tissue.
- Exercise and diet are major components to slow the process, but patients may be very resistance to change.

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The #1 Reason for the First Dermatology Visit



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Seborrheic Keratosis

- Benign epidermal growth
- Considered a defect of hair follicles
- Found anywhere except palms of hands and soles of feet
- While normal, patients find these growths very distressing.



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Seborrheic Keratosis (continued)

- Look carefully: There is a basal cell carcinoma hidden in this field of SKs.
- Treatment is not necessary, but with skill one can apply liquid nitrogen or electro-cautery.

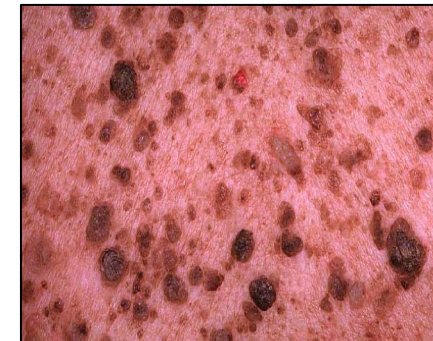


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SKs: Itching is off the charts.

- Strong hereditary and sun-exposed area component
- Main complaint is aesthetic and itching.
 - Great deal of picking when on face, scalp and arms
- Can bleed easily
- Smart to biopsy the outliers

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The existence of hair in a mole is often a good sign. We do not see hairs growing in skin cancers or melanomas.



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Senile or "Cherry" Angioma

- Vascular papule consisting of blood and collagen often appears on face and trunk.
- Color ranges from bright red to dark purple or nearly black, dependent on blood pressure.
- Treatment is often discouraged, but reasonable to cauterize those that frequently bleed or biopsy the inflamed, bulging papule.

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Senile Angiomas (continued)



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This stable "senile angioma" began to swell and burn. Biopsied as nodular melanoma.



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**"Bruising:"
Pigmented
Purpura**

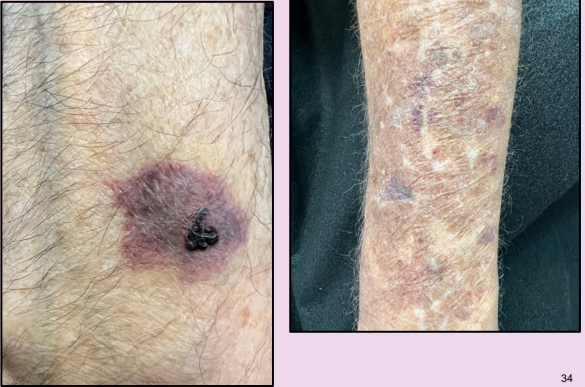


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Pigmented Purpura Management and Treatment

- Reassurance, no active treatment required
- Simple capillary breakage and loss of fat reserves in arms and legs
- May increase as a result of multiple blood-thinner products, both prescription and over-the-counter
- Protection and awareness to protect from trauma
- Topical steroid may help but discouraged due to atrophy concerns.
- Topical calcineurin inhibitors used daily as cream helps bruising disappear faster.
- Over-the-counter suggestion

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Actinic Keratosis: Stay Ahead of Skin Cancer!

- Actinic keratosis are the earliest development of squamous cell carcinoma (SCC).
- Depending on the research and a patient's immune status, anywhere from 1% to 5% can involute to SCC.
- Most popular treatment for providers and most patients is liquid nitrogen (LN2).




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AK Treatment with LN2 Before and After




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Another Treatment for AKs



- Generic prescription 5% fluorouracil and 5% imiquimod creams applied nightly for 2 weeks on areas of multiple actinic keratosis will result in burning, itching and scaling.
- Reapplication may be required at 6-month intervals, but often results in much smoother skin and significant decrease in future AKs.

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Psychocutaneous Dermatology

- Prurigo nodularis (PN), or neurotic excoriation, “habit pick”
- Not always “delusions of parasitosis” (i.e., the belief that insects inhabit the skin of the patient)
- Often a result of depression, anxiety or restlessness.
- Are seborrheic keratosis the culprit?





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Prurigo Nodularis (continued)



- Very often a result of boredom, anxiety or frustration with a naturally occurring growth.
- Remember, the lesions usually occur where the patient can reach with hands and fingernails.
- Biologic dupilumab is the only FDA-approved medication for PN.

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Stasis Dermatitis

- Result of chronic venous insufficiency
- Blood circulation is slowed and not re-oxygenated.
- Worse in pregnancy, diabetes, observed in 7% of patients older than age 50 years
- Elevate legs 3–4× for at least 20 minutes.
- Consider ultrasound of veins, compression stockings and diuretics.
- Triamcinolone ointment 0.1% BID for 1-week when itching is present.

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Stasis Dermatitis has many presentations.

Two side-by-side photographs showing different presentations of stasis dermatitis. The left photo shows a person's lower legs with large, irregular patches of red and purple discoloration. The right photo shows a close-up of a person's ankle and lower calf with severe, dark red, and purple skin discoloration and some crusting. At the bottom left, it says "Image sources: Used with permission from Victor Czerkasij" and at the bottom right is the number "43".

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Intertrigo or Cutaneous Candidiasis

- Occlusion, moisture and warmth are the medium.
- Reddish, yeast, itching patches: Axilla, skin folds
- Simplest treatment is ketoconazole 2% shampoo wash and triamcinolone 0.1% cream every day for 5 days and keep the area dry with OTC tolnaftate (Zeosorb® AF) powder.

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Contact Dermatitis

- Over 3,700 substances have been identified as skin allergens.
- Some allergens result in a quick skin response. Our population is experiencing increasing sensitivity to allergens.
- Distribution and history important in substance identification
- Most common irritating products: Nickel, fragrance, hair dye, poison ivy, neomycin ointment, latex, deodorants, preservatives and cosmetics

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Contact Dermatitis (continued)

- Patch testing is sometimes helpful.
- Ask for ready-to-use patch test panels (T.R.U.E. Test®) in referrals.
 - However, cannot have steroid two weeks prior
- Check with American Contact Dermatitis Society for the "Allergen of the Year."
 - Fascinating research
- Discussion: Depending on severity, fastest treatment is either oral, topical or intra-muscular steroid in combination with antihistamines.

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Contact Dermatitis (continued)

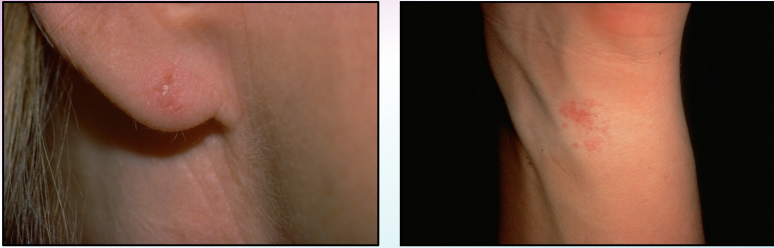


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Adverse Drug Eruptions



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Adverse Drug Eruptions (continued)

- Morbilliform or urticarial presentation
- Can occur with new medication or certainly with one taken for many years
 - Multiple drug interactions
- Photosensitivity can exacerbate the response.

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Adverse Drug Eruptions (continued)

- Symmetrical, bi-lateral and often “full body”
- Same presentation with certain foods (i.e., chocolate, shellfish, dairy etc.)
 - History is **key**.
- Punch biopsy required to prove to stubborn PCP

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Adverse Drug Reaction Treatment



- Identify offending agent
 - Often statins, blood pressure or pain medications
- Cetirizine 10 mg 1 PO at bedtime, systemic steroid and topicals
- Check on respiration and throat swelling.

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Vasculitis: Inflammation of the Vascular System

- Often favors the lower legs
- 50% cases are triggered by infection or medication; the other 50% are idiopathic.
- Classic macular petechia
- Identify reason, though often resolves
- Prednisone taper helpful but persistent presence will require consideration of skin biopsy, infection concerns, or malignancies.



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Rosacea

- April is Rosacea Awareness month – Why do you think?
 - It affects 16 million Americans.
 - The goals are control, not cure
 - 76% rosacea patient experience lowered self-esteem and self-confidence.
- Patient must become educated in daily skin care and trigger control.
 - Top two triggers outside of genetics: Stress and sunshine

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Rosacea is not acne. Inflammatory vs. Bacterial



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Seborrheic Dermatitis



- Chronic inflammatory flaking and rash in sebaceous gland areas – “Cradle cap”
- Often confused with psoriasis
 - Affects scalp, ears, eyelids, nasolabial folds

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Treatment of Seborrheic Dermatitis

- Rx ketoconazole 2% shampoo three times a week to affected areas
- Rx triamcinolone 0.01% cream three times a week to affected areas
- Oral fluconazole 150 mg 1 by mouth once



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Seborrheic Dermatitis – Severe



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Seborrheic dermatitis can drop to the chest area.



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Seborrheic Dermatitis Challenges



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OTC selenium sulfide or ketoconazole 1% shampoos often helpful for daily maintenance.

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Cutaneous Mycosis



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Treatment of Cutaneous Mycosis

- Look for outer raised edges, central hypopigmentation, slight blistering, annular shape, very pruritic, spreading out

- Treatment paradigm
 - Topical ketoconazole 2% cream BID to affected area for 2 weeks
 - Oral 250 mg terbinafine 1 by mouth qday for 2 weeks in stubborn cases

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Profoundly Pruritic, Faint but Well-outlined Tinea Corporis: 75-year-old Man who Sits a Lot in his Recliner



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Digital Myxoid Cysts

- Digital myxoid cysts are very common age 60 years and older
- Usually, an inflammation directly behind the toenail or fingernail
- Oozing gelatinous material that squeezes out in early rheumatoid arthritis
- Requires skilled ability to inject intralesional triamcinolone and recommend referral



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Digital Myxoid Cyst Examples

Consider a major differential?



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Epidermal Inclusion Cysts

- Common sebum accumulates in a clogged pore and thickens over time, perfect bacterial medium
- Can become painful and easily infected
 - Culture and sensitivity (C&S)
- Recommend simple excision surgery when possible.



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Sebaceous cysts can harden and become irritable as oversized open comedones.

- Elderly patients, particularly if alone, require a very thorough exam of their skin.
- While some conditions are benign, they can be annoying.
- With limited vision, some complain of "itching skin tags."

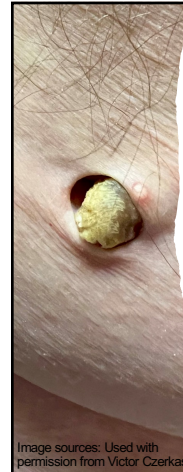


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Granuloma Annulare

- Delayed hypersensitivity reaction to an unknown trigger with a cutaneous exhibition
- Classic “auto-immune” response
 - Generally, fades in 6 months–2 years



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Granuloma Annulare (continued)

- General treatment: None
- Triamcinolone 0.1% cream daily for pruritus relief generally helpful.



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Granuloma Annulare (continued)

- Daily topical tacrolimus 1% or pimecrolimus 1% ointment for therapy lasting one-month or longer
- Differentials should include tinea corporis or sarcoidosis.



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Polymorphous Light Eruption

- Group of reactions triggered by ultraviolet light UVA
 - Usually in spring and summer
- Intensely pruritic
 - Often shows in sun-exposed areas
- Sometimes a result of certain photosensitive oral medications
- Greatly affects chest and arms first-line



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Polymorphous Light Eruption (continued)



- Repeated scratching can lead to superficial bacterial infection
- Scratching promotes ongoing histamine reaction.
- Use sunscreen or clothing to cover and prevent.

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Polymorphous Light Eruption (continued)



- Consider cetirizine 10 mg 1 PO at bedtime × 2 weeks **and** triamcinolone 0.01% cream BID × 1 week for relief.
- Polymorphous light eruption (PMLE) resolves quickly: Think “solar urticaria”
 - Some say, “sun poisoning”

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Verruca Vulgaris (Warts)



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Verruca Vulgaris (Warts) (continued)

Benign epidermal neoplasm caused by HPV – Treatment options

- Watchful waiting
 - The immune system does wake up for some.
- Liquid nitrogen
 - Often unsatisfying, painful and limited
- 1% cantharidin (Canthacur®) application
 - Fast and effective
- 50% compounded salicylic acid nightly – the magic number
- Lidocaine/epinephrine injection and cautery
 - Effective but scars
- Duct tape therapy
 - 12 hr on/12 hr off and pumice stone once a week
- 5-fluorouracil cream or 5% imiquimod cream discussion

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Onychomycosis Pearls

- Recent research shows that thickened, chipping and unsightly nails are often caused first by bacterial infection, then fungal and finally, normal keratinization.
 - Consider the wisdom of sending nail samples to pathology first and not assume nail fungus.
 - Also, pseudomonas or “Green Nail Syndrome” only requires 50/50 daily 10-minute soak in white vinegar and distilled water.
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“Green-Nail” Syndrome



Treatment Dilemmas

- Oral terbinafine 250 mg qday for 6 weeks fingers/12 weeks toes often required, with CBC, CMP, lipid panel.
 - Drug-to-drug interactions with increased hepatotoxicity are possible.
 - Topical efinaconazole and tavaborole FDA-approved but low success rate, often not covered by insurance.
 - Aware of itraconazole but many complications
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Skin Cancer: Bane of Aging

- 96-year-old female who was living alone
- Wore a hat or wig when friends and family would visit
- She **did not want to bother anyone** with her problems.
- Required extensive surgery and a graft for a squamous cell carcinoma

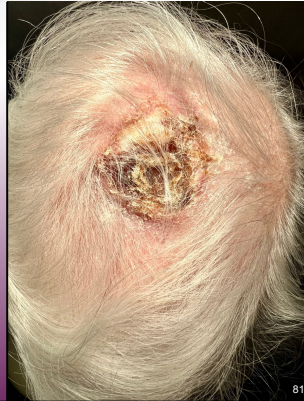


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Melasma



- Increase of melanocytes in sun-exposed areas
- Irregular and patchy
- Due to heredity, hormones, ethnicity and sunshine

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Melasma Treatment



- Prevent darkening with regular sunscreen use.
- Treat topically with compounded creams that include hydrocortisone, tretinoin, kojic acid and hydroquinone.
- Laser generally effective in lighter skin only.

Image source: Mutter, J. C. (2017). Laser Melasma Treatment. (https://commons.wikimedia.org/wiki/File:Laser_Melasma_Treatment.jpg) CC BY-SA 4.0

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The "Trick" to Dermatology



Understanding what is **normal**, what is **abnormal**, and what to do effectively with the tools available and fewest adverse effects.

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Anatomical Location

- Think
 - What do I expect to see in a particular area?
 - What process would cause this reaction?
 - Consider age, race, gender, and location for appropriate lesions.



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Be thorough!
When you learn new skills (i.e., dermoscopy and techniques), you become more valuable to your patients and employers.

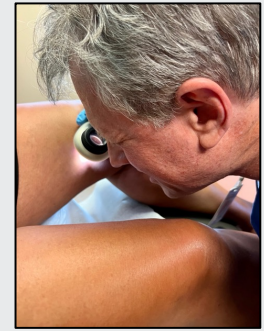
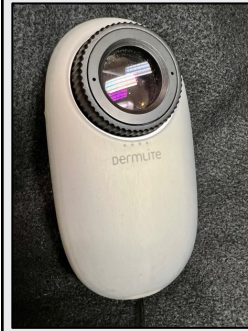


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Dermatology Myths

- A skin biopsy scatters cancer.
- Excess shaving promotes hair growth.
- My hair turned white overnight!
- Dark tans protect from skin cancer.
- OTC products don't work as well as prescription products.
- Sunscreen causes skin cancer.

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Dermatology Myths (continued)

- "Tik Tok skin advice is the best advice that's why I use deodorant on my face, olive oil in my hair, and alcohol to cool my skin. How can a person with a million followers be wrong?"
- Home microneedling is a money-saving and effective treatment.
- Sunscreen contouring is a brilliant idea.
- Do it yourself fillers and injectables can be done right in your kitchen.
- "Don't worry, it's only skin cancer."

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Topical Steroid Use in the Elderly

- One of the great medical miracles of the 20th century
- Modeled on cortisol, body's natural anti-inflammatory produced in adrenal glands
- Divided into seven levels of strength, Class 1 through 7
- Profoundly abused by providers and requires education and comprehension by patient
 - Ask for family members to attend visits.

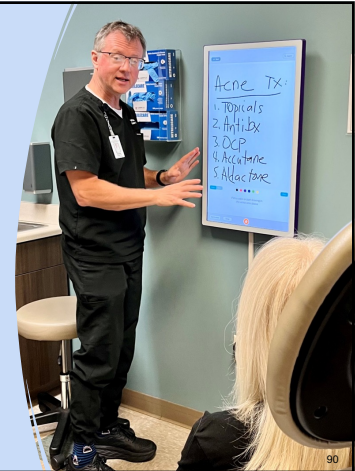
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Modeling

- Request that your patient takes notes.
- Use your medical assistant to make additional notes.
- Use free white boards in your exam room. Write points and encourage your elderly patient or family member to take a photo to review the highlights later.
- Offer brochures of your diagnosed condition.

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Emergency!



Fever, malaise, lymph-swelling, hyperemia, photo-phobia, headache and quick onset of inflammation is an emergency!

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End of Presentation
Thank you for your time and attention.

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Resources

- American Academy of Dermatology, available at www.aad.org
- American Society for Dermatologic Surgery, available at www.asds.net
- American Society of Plastic Surgeons, available at www.plasticsurgery.org

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