

# It's Not Just a Base Tan

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# Presentation Overview

- Sun and UV radiation
- Actinic Keratosis (AK)
- Basal Cell Carcinoma (BCC)
- Squamous Cell Carcinoma (SCC)
- Malignant Melanoma (MM)
- Mammary Pagets
- CTCL

# Skin Cancer Facts

- **1 in 5 Americans** will develop skin cancer by the age of 70.
- **More than 2 people** die of skin cancer in the U.S. every hour.
- Having **5 or more sunburns** doubles your risk for melanoma.
- When detected early, the **5-year survival rate for melanoma is 99 percent.**
- **Tanning bed use increases risk of Melanoma almost 50%.**
- Per NIH Estimated ~100K Melanoma found in 2022, death rate 7,650

# UV Radiation

- UVA – comprises 3.5% of radiation
- UVB – comprises 96.5% of radiation
- UVC – doesn't reach Earth's surface

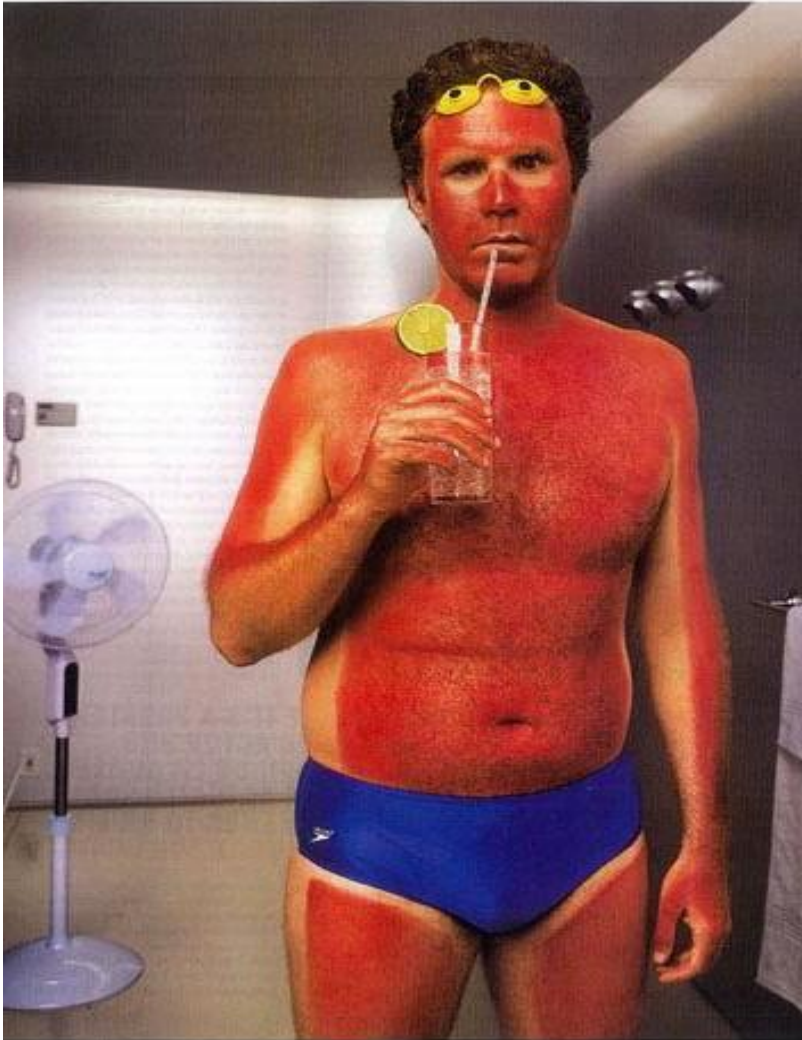
# UV Effects on Skin

- Sun Burn
- DNA damage
- Photoaging
- Pigment Disorders
- Skin Cancer

# UVA vs UVB

- UVA (96.5% of radiation)
  - 320-400 nm
  - NOT absorbed by Ozone
  - Penetrates glass
  - Penetrates to Dermis
  - Aging rays
- UVB (3.5% of radiation)
  - 290-320 nm
  - Partially absorbed by Ozone
  - No glass penetration
  - Penetrates to Epidermis
  - Sunburn rays

# Sunburns



- Prevention!
- Skin type determines susceptibility
- Even sun exposure without burn increases skin cancer risk
- UV index
- Any pink = sunburn
- Repeated sunburns increase risk
- Even one blistering sunburn in childhood doubles melanoma risk



# Sun Protection

- UPF Clothing
  - Hats
  - Rash guards
  - Wide brimmed hats
  - Sunglasses
- Avoid tanning beds and sun exposure 10 AM-2 PM
- SPF
  - 30+
  - Mineral vs Chemical
  - Regular reapplication (80 - 90 minutes)

# Actinic Keratosis (AK)



<https://dermnetnz.org/topics/actinic-keratosis-face-images>

<https://dermnetnz.org/topics/actinic-keratosis-scalp-images>

# Dermoscopy

- Noninvasive exam of the skin surface
- Enables visualization of submacroscopic structures invisible to naked eye
- High resolution and magnification of lesion 10-16x
- Pigmented and nonpigmented lesions



# Shave Biopsy



- Materials required: alcohol prep swab, local anesthetic (xylocaine with epi), drysol, cotton tipped applicator, Vaseline, bandage, stainless steel blade
- Cleanse the area with alcohol prep swab
- Inject local anesthetic
- Remove the entire lesion by applying pressure to the ends of the blade to bend the blade and using a back and forth sawing motion to remove the lesion from the skin, you need at least pin point bleeding to ensure correct depth
- Apply drysol to the wound for bleeding
- Place specimen in formalin bottle for pathology
- ALWAYS send anything removed for pathology

# Punch Biopsy



- Materials required: alcohol prep swab, local anesthetic (xylocaine with epi), gauze, topical surgical prep swab, gloves, punch biopsy tool (2-8mm in size) forceps, scissors, needle holder, formalin, sutures, Vaseline, bandage, stainless steel blade
- Cleanse the area with alcohol prep swab
- Inject local anesthetic
- Surgical prep scrub applied to the skin in concentric rings from the lesion
- Stretch the skin perpendicular to the relaxed skin tension lines, punch instrument inserted into skin in a rotating fashion down to the subcutaneous fat. Forceps used to grab the specimen at the subcutaneous fat, curved sharp scissors used to cut the specimen at the fat.
- Suture with interrupted sutures
- Place specimen in formalin bottle for pathology
- ALWAYS send anything removed in for pathology

# Actinic Keratosis (AK)

- Scaly, rough patches
- Potential to evolve into skin cancer
- Increased risk with each exposure, burn, altitude
- Occur on sun damaged skin
  - Scalp, face, ears, hands, arms

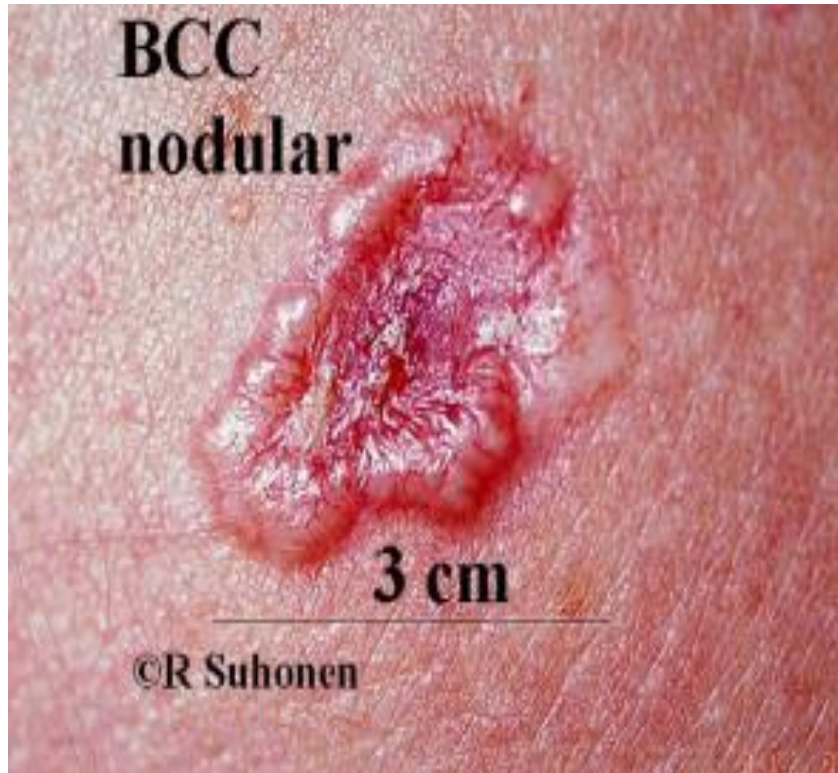


# AK Treatment

- Cryosurgery (Ln2)
  - -196 C (-320.8 F)
- PDT (Blue light)
- Field Therapy:
  - 5-FU (Efudex)
  - Imiquimod
  - Klysiri
  - Efudex/Calcipotriene



# Basal Cell Carcinoma (BCC)



<https://dermnetnz.org/topics/basal-cell-carcinoma-affecting-the-face-images>

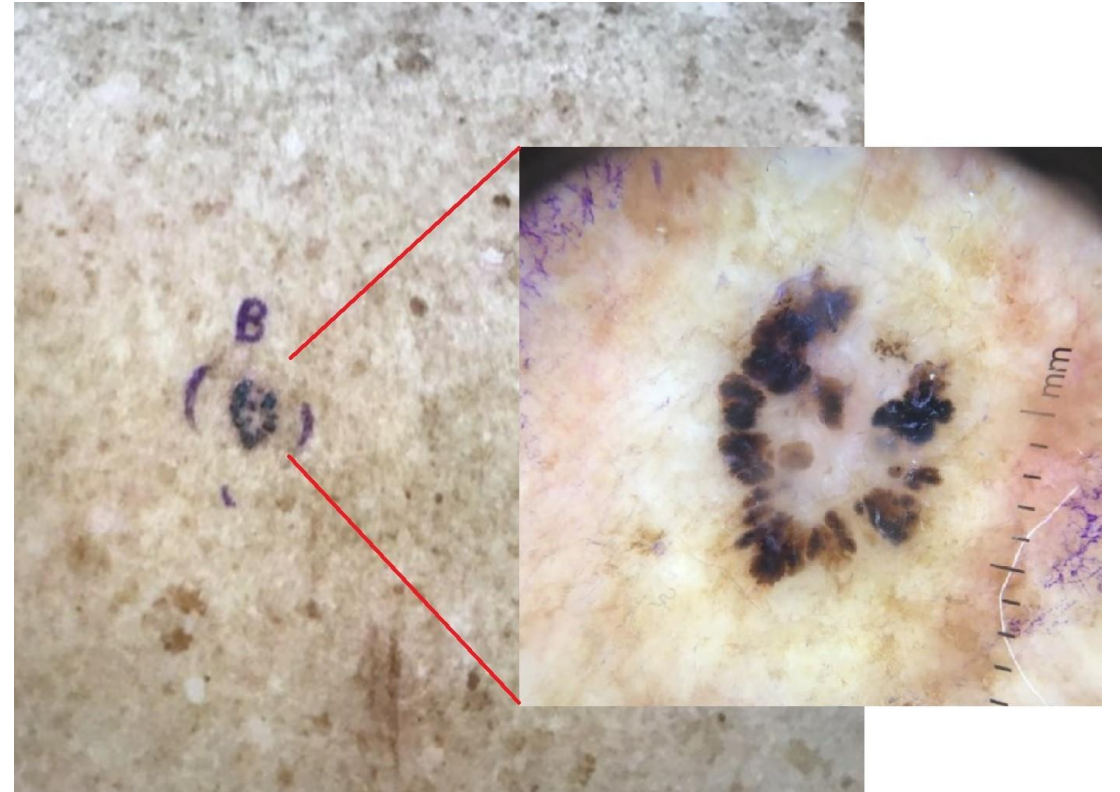


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# Basal Cell Carcinoma (BCC)





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# Basal Cell Carcinoma

- Most common skin cancer Incidence xxx
- Slow growing, rarely metastitizes
- Can destroy tissue if not treated
- Types: Superficial, Nodular, Pigmented, Morpheaform

# Squamous Cell Carcinoma (SCC)



<https://dermnetnz.org/topics/squamous-cell-carcinoma-of-the-ear-images>

<https://dermnetnz.org/topics/squamous-cell-carcinoma-on-the-face-images>

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# Squamous Cell Carcinoma (SCC)



# Squamous Cell Carcinoma (SCC)





# SCC

- 2<sup>nd</sup> most common skin cancer incidence
- Caused from UV radiation/exposure
- Can arise from Aks
- Types: Superficial/In situ, Keratoacanthoma, Invasive
- Increased risk in transplant and immunosuppressed patients

# BCC & SCC Treatment

- Topical: 5-FU (Efudex), Imiquimod
- Electrodesiccation and Curettage (ED&C)
- Excision with margin
- SRT
- Mohs Surgery: scalp, face, ears, hands, genitals, body (>2 cm)
- Hedge hog pathway inhibitors (many BCC or BCC large to treat)

# Mohs Surgery

- PICTURE

- PICTURE

# Melanoma

- Most fatal skin cancer ; ~7,500 die annually in US
- Men > Women
  - In 2023, expected ~100k cases (60K men, 40k women)
  - In 2023, expected ~8K deaths (5,500 men, 2,500 women)
- Men: back ; Women: legs
- Risk doubles if:
  - Five or more sunburns in lifetime
  - Repeat tanning bed exposure
- Increased risk: fair skin, light or red hair, numerous moles, previous MM, advanced age, family history
- Types: Superficial Spreading/In Situ, Invasive, Amelanotic







# ABCDEs of Melanoma

**BE A HERO!**

**CATCH SUSPICIOUS SPOTS**

**Use the ABCDEs of melanoma.**

Melanoma is the deadliest form of skin cancer. However, when detected early, it can be effectively treated. Look for the following warning signs of melanoma when performing skin exams:

<b>A</b> 	<b>B</b> 	<b>C</b> 	<b>D</b> 	<b>E</b> 
<b>ASYMMETRY</b> One half is unlike the other half.	<b>BORDER</b> Irregular, scalloped or poorly defined border.	<b>COLOR</b> Varied from one area to another; has shades of tan, brown or black; sometimes white, red, or blue.	<b>DIAMETER</b> While melanomas are typically greater than 6mm (the size of a pencil eraser) when diagnosed, they can be smaller.	<b>EVOLVING</b> A mole or skin lesion that looks different from the rest or is changing in size, shape or color. Example: 

**SPOT**  
SKIN CANCER  
AMERICAN ACADEMY OF DERMATOLOGY®

# Malignant Melanoma



<https://dermnetnz.org/topics/superficial-spreading-melanoma-images>

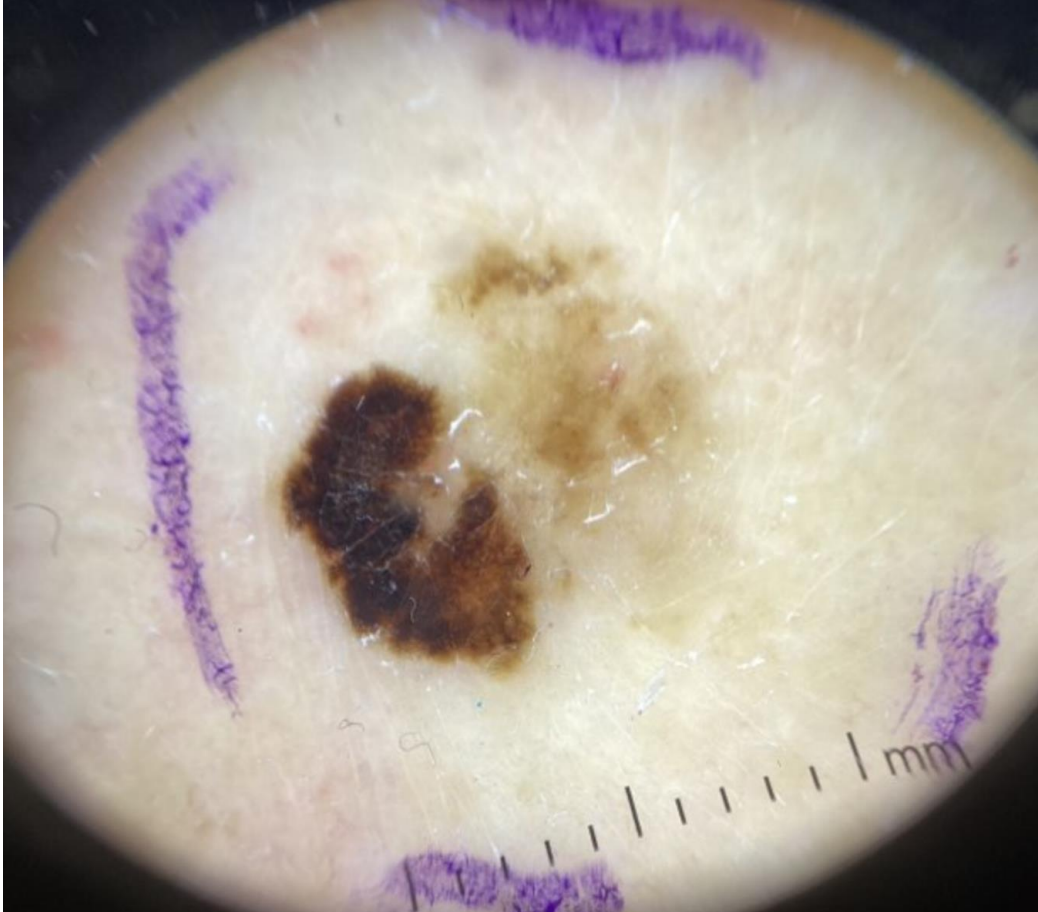


# Malignant Melanoma



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# Malignant Melanoma





# Malignant Melanoma



# Melanoma



<https://dermnetnz.org/topics/superficial-spreading-melanoma-images>



# Amelanotic Melanoma



<https://dermnetnz.org/images/amelanotic-melanoma-images>

# Melanoma Treatment

- Referral to dermatologist, med oncologist, surgical oncologist for treatment
- Excision
- Sentinel lymph node biopsy
- Chemotherapy/immunotherapy
  - BRAF inhibitors
- Q3 month FBE x 1 year, Q6 month FBE x 2 years minimum, then yearly

# Mammary Pagets

- Malignant intraepithelial condition of nipple and peri-areolar skin
- Protracted inflammatory appearance
  - Erythema, scaling, weeping, bleeding
- Mostly women
- 1-4% of all breast cancers
- Biopsy and refer to surgical and breast oncology

MAMMARY PAGETS PIC

# CTCL



<https://dermnetnz.org/topics/cutaneous-t-cell-lymphoma-images>



# CTCL



# CTCL: Overview

- T or B-cell origin
  - MF and Sezary syndrome most common
  - Vary in presentation
- Erythematous patches and plaques with fine scale, 2-20 cm
- “cigarette paper appearance” or bizarrely shaped plaques
- Often found on buttocks and sun-protected areas of trunk and limbs
- May be severely pruritic
- Delay to diagnosis (6-8 biopsy average)
  - Broad shave biopsy
- Frequently previously diagnosed as psoriasis, AD, Tinea, ACD



# CTCL: Overview (cont)

- Mostly 50+ yo, but can occur at any age, M>F
- African descent > Northern European
- Treatment: Refer to Derm-Onc

# Want To Break Into Derm?

- AAPAs PA Like A Pro Webinar: Dermatology
- AAPA Huddle. Ask Me: Dermatology

<https://huddle.aapa.org/communities/community-home/digestviewer/viewthread?MessageKey=5e5d87bb-dcb4-4627-9da2-62ee77103391&CommunityKey=e54b07fe-0e40-4c0c-a8e4-25d744d979b5#bm5e5d87bb-dcb4-4627-9da2-62ee77103391>

Q & A