Skin Cancer

Skin Cancer

- Screening for, diagnosing, and treating skin cancer is…
  - One of the most *important* tasks your supervising physician performs.
  - One of the most *common* tasks performed.
- Clinical support staff members like <u>*you*</u> play a vital role in this process.

Skin Cancer

The "big three" skin cancers are…

- Basal Cell Carcinoma
- Squamous Cell Carcinoma

"Non-Melanoma Skin Cancer" (NMSC)

- Melanoma

Basal Cell Carcinoma

Skin Cancer

BASAL CELL CARCINOMA

- Background
  - Most common cancer (of any type) in the world.
    - >1,000,000 occur every year in the United States alone.
  - 75-80% of skin cancers are Basal Cell Carcinomas.

Skin Cancer

BASAL CELL CARCINOMA

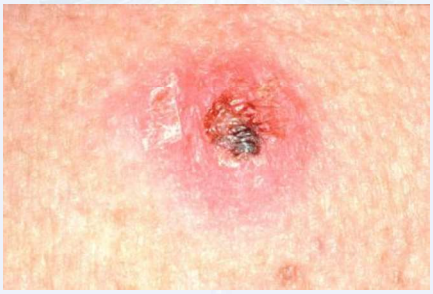
- Risk Factors
  - Ultraviolet Light
  - Fair Skin
    - Inability to tan
    - Light-colored eyes
    - Light-colored hair
  - Advanced Age

Skin Cancer

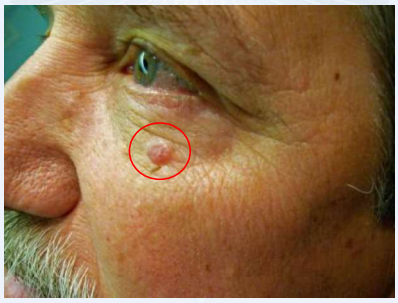
BASAL CELL CARCINOMA

- Presentation
  - Can occur *almost* anywhere on the body.
    - Face, ears, and neck most common.
  - Patients often think they are a "pimple", abrasion, or even an insect bite that just wouldn't heal.
    - Usually does NOT present as a "dark mole".

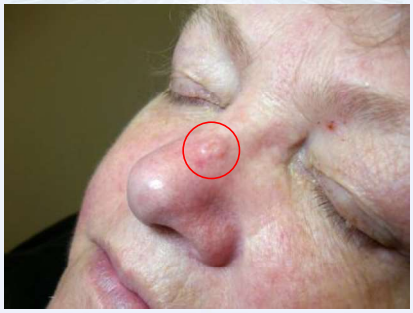
Skin Cancer

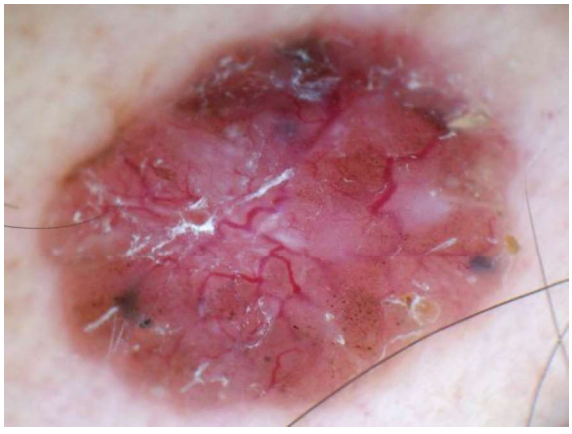


Skin Cancer



Skin Cancer





Skin Cancer

BASAL CELL CARCINOMA

- Most Common Subtypes
  - Superficial
  - Nodular
  - Pigmented
  - Infiltrative
    - Morpheaform
    - Micronodular
  - Basosquamous

Skin Cancer

BASAL CELL CARCINOMA

- Prognosis
  - Often referred to as "the best kind of skin cancer to have".
    - Metastasis is *exceedingly rare* (<1%).
    - Tend to grow very slowly.
  - Eventually will destroy surrounding tissue if left untreated.
    - Vital structures such as the eyes, ears, and nose are particularly vulnerable to damage and/or disfigurement.

Squamous Cell Carcinoma

Skin Cancer

SQUAMOUS CELL CARCINOMA

- Background
  - Second in frequency behind Basal Cell Carcinoma.
    - Est. 200,000 diagnosed annually in United States alone.

Skin Cancer

SQUAMOUS CELL CARCINOMA

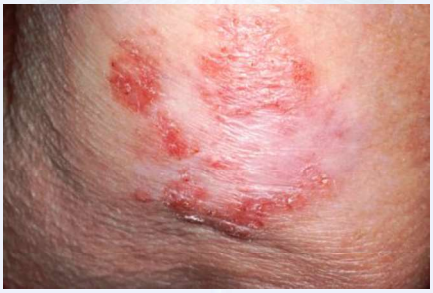
- Risk Factors
  - Ultraviolet Light
  - Fair Skin
  - Advanced Age
  - Actinic Keratoses
  - Immunosuppression
  - Radiation Exposure
  - Burn Scars
  - Human Papilloma Virus

Skin Cancer

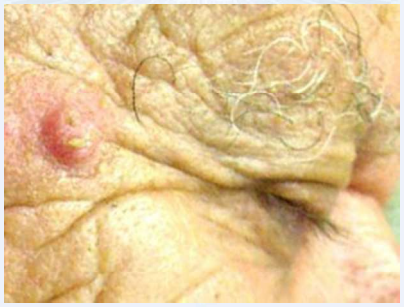
SQUAMOUS CELL CARCINOMA

- Presentation
  - Can occur almost anywhere.
    - Face, ears, dorsal hands, and forearms *most common*.
    - SCC can also occur on the oral mucosa.
    - SCC on legs is not uncommon in elderly females who used to play golf, tennis, or sunbathe.
  - Often presents as a non-healing, scaling or crusting "sore" that just doesn't go away.

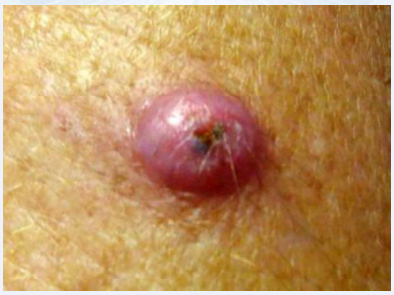
Skin Cancer



Skin Cancer



Skin Cancer



Skin Cancer

SQUAMOUS CELL CARCINOMA

- Most Common Subtypes
  - Superficial
    - aka, "Bowen's Disease" or "SCC In Situ"
  - Keratoacanthoma-type
  - Typical SCC often classified by "differentiation"
    - Well-differentiated (least atypical)
    - Moderately-differentiated
    - Poorly-differentiated (most atypical)

Skin Cancer

SQUAMOUS CELL CARCINOMA

- Prognosis
  - SCC *does have* a real potential to metastasize!
    - However, the overwhelming majority ***do not***.
  - The greatest risk of metastasis occurs in….
    - Very deep lesions (extending to bone, muscle, or nerve tissue).
    - Immunosuppressed patients.
    - Lesions which are "poorly-differentiated".
    - Lesions arising within a scar (e.g., "burn scar").
    - Those which arise on the lip (~14%).

Skin Cancer

Most Common NMSC Treatments

- Traditional Excision
- Mohs Surgery
- Electrodessication and Curettage
- Topical Chemotherapy
- Radiation Therapy (aka, "XRT")
- Erivedge® (BCC Only)

Melanoma

Skin Cancer

MELANOMA

- Background
  - To the public, it's the most "familiar" of all skin cancers.
    - Many mistakenly believe that *all* skin cancers are "melanoma".
  - Even though it accounts for only 5% of skin cancers, it is *responsible for nearly 80% of skin cancer deaths!*

Skin Cancer

MELANOMA

- Facts
  - The ACS estimates over 75,000 new cases of melanoma are diagnosed every year.
    - ***Over 9,000 will die!***
  - The overall lifetime risk of melanoma:
    - 1 in 50 for whites.
    - 1 in 200 for Hispanics.
    - 1 in 1,000 for blacks.

Skin Cancer

MELANOMA

- Risk Factors
  - Fair Skin
  - Light-Colored Eyes
  - Red or Blonde Hair
  - Presence of > 100 Nevi
  - *Any* Dysplastic Nevi
  - Large Congenital Nevus

Skin Cancer

MELANOMA

- Risk Factors (cont.)
  - Personal History of Melanoma
    - BCC/SCC ***do not*** turn into melanoma!
  - Family History of Melanoma (1° Relative)
  - Xeroderma Pigmentosum
  - Certain Gene Mutations (e.g., "P16")
  - **ULTRAVIOLET LIGHT!!**

Skin Cancer

MELANOMA

- Risk Factors (cont.)
  - **ULTRAVIOLET LIGHT**!!
    - Both chronic and intense intermittent exposure increase melanoma risk.
      - Just one blistering sunburn during childhood can *double* chance of melanoma later in life!
    - Tanning beds, and even PUVA and UVB in dermatology office can increase risk.

Skin Cancer

MELANOMA

- Presentation
  - Can occur *anywhere* on the body.
    - Slightly more common on the legs in women.
    - Slightly more common on the back in men.

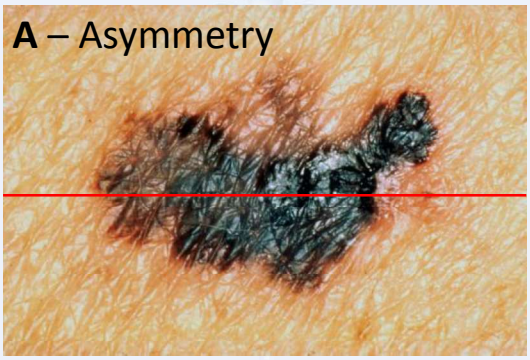
CAN OCCUR ANYWHERE!!

Skin Cancer

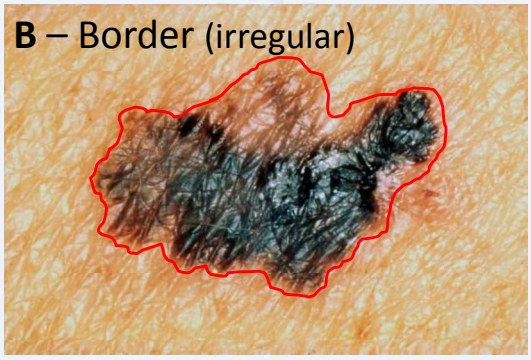
MELANOMA

- Presentation
  - ABCDs of Melanoma
    - Meant to serve as a screen for lesions which may be suspicious for melanoma.
    - NOT a perfect screening tool!
      - It's very sensitive, but not very specific.

A – Asymmetry

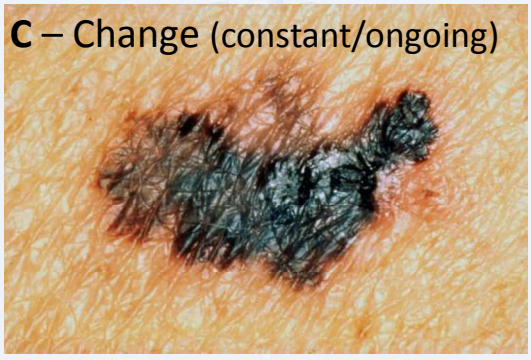


B – Border (irregular)

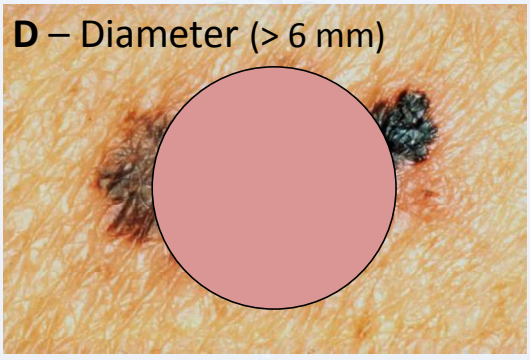


C – Color (very dark or varied)

C – Change (constant/ongoing)



D – Diameter (> 6 mm)



Skin Cancer

MELANOMA

- Presentation
  - There will *always* be exceptions to the rule!
    - Amelanotic melanoma is the most notable.
      - Have no pigment, therefore aren't dark.
      - Very difficult to diagnose using traditional ABCD criteria.
        - » However, screening techniques used for BCC/SCC can help to discover them.

Skin Cancer

MELANOMA

- Presentation
  - The majority of melanomas ***do not*** arise from within a mole.
    - All lesions should be monitored, but melanoma more likely to be found in *newly-forming* lesions.
    - Many patients think moles "must" be raised/elevated.
      - If only raised/elevated lesions are monitored, then melanoma in its earliest stages can be missed.

Skin Cancer

MELANOMA

- Most Common Subtypes
  - Superficial Spreading Melanoma

Skin Cancer

MELANOMA

- Most Common Subtypes
  - Nodular Melanoma

Skin Cancer

MELANOMA

- Most Common Subtypes
  - "Growth Pattern"
    - Superficial Spreading Melanoma
    - Nodular Melanoma

Skin Cancer

MELANOMA

- Most Common Subtypes
  - Level of "Invasion"
    - Melanoma In Situ
      - Confined to the epidermis *only* .
    - "Invasive" Melanoma
      - Any melanoma which *isn't* "in situ".
        - » Melanoma which has moved beyond the epidermis and has "invaded" at least the underlying dermis.

Skin Cancer

MELANOMA

- Other Common Subtypes
  - Lentigo Maligna
    - Simply a melanoma *in situ* which formed within a pre-existing "lentigo".
  - Lentigo Maligna Melanoma
    - "Invasive" version of a "Lentigo Maligna".
  - Acral Lentiginous Melanoma
    - Name given to melanoma which arises on the palms, soles, beneath the nails, or on the mucosal surfaces.

Skin Cancer

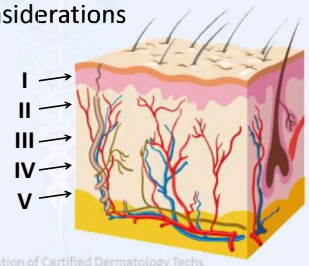
MELANOMA

- Prognosis
  - **Good News**
    - The *vast majority* of melanomas are easily excised and never metastasize.
  - **Bad News**
    - A *significant minority* of patients who are diagnosed with melanoma will have metastasis and eventually die.
      - Of 75,000 patients diagnosed, over 9,000 will die.

Skin Cancer

MELANOMA

- Prognostic Considerations
  - **Clark's Level**

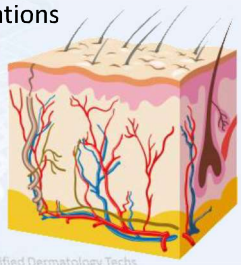


Skin Cancer

MELANOMA

- Prognostic Considerations
  - **Breslow Depth**

1 mm
2 mm
3 mm
4 mm
5 mm



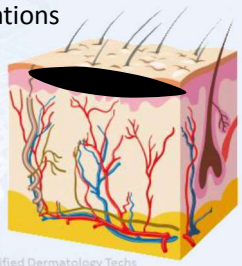
Skin Cancer

MELANOMA

- Prognostic Considerations
  - 5-Year Survival Rate

<u>Example</u>

Breslow Depth < 1 mm
Non-Ulcerated
95% 5-Year Survival Rate



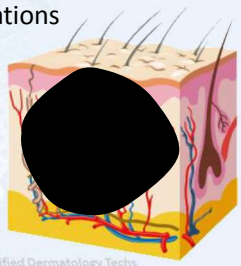
Skin Cancer

MELANOMA

- Prognostic Considerations
  - 5-Year Survival Rate

<u>Example</u>

Breslow Depth 4.5 mm
Ulcerated
45% 5-Year Survival Rate



Skin Cancer

Melanoma Treatment

- **Surgical**
  - Margins always taken.
    - As little as 0.5 cm to as much as 2 cm.
  - Sentinel Lymph Node (SLN) Biopsy?
    - Blue dye and radioactive "technetium-99" solution injected into the tissue surrounding melanoma site.
    - Draining node(s) are removed and tested for any sign of metastatic melanoma.

Skin Cancer

Melanoma Treatment

- Adjuvant
  - Chemotherapy
    - Dacarbazine
  - Immunotherapy
    - Interleukin-2
  - Vaccines (various)
  - New Medications
    - Ipilimumab
    - Vemurafenib

NONE have been shown to *significantly* affect long-term survival!

Skin Cancer

CONCLUSION