Living Beyond Cancer Skin Cancer Detection and Prevention

Mays Cancer Center

UT Health San Antonio MD Anderson Cancer Center

Cutaneous Skin Cancers

- Identification
- Diagnosis
- Treatment options
- Prevention

What is the most common cancer in people?

What is the most common cancer in people?

Skin Cancer!

Over 3 million people are diagnosed annually

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Skin Cancer Foundation

- 1 in 5 Americans will develop skin cancer in their lifetimes
- Each year, there are more new cases of skin cancer than the incidence of cancers of the breast, prostate, lung and colon combined
- 90% of of non-melanoma skin cancers are caused by UV radiation from the sun

Basal Cell Carcinoma (BCC)

The most common skin cancer

Approximately 80% of all skin cancer cases

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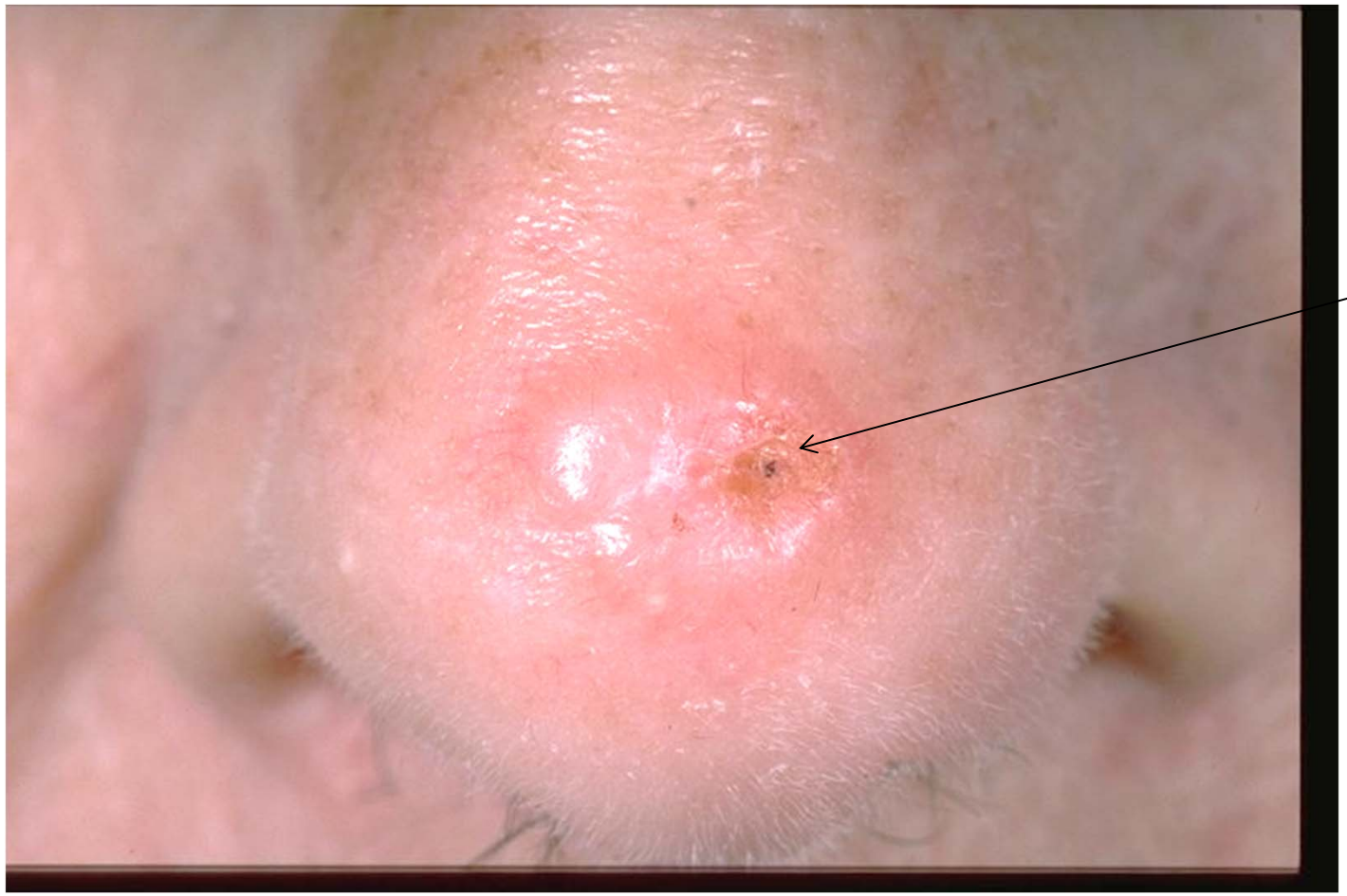
BCC: Pearly, translucent lesion



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BCC: Pearly, translucent with blood vessels

Superficial BCC – may resemble a plaque of eczema

But, it does not go away with eczema treatment

BCC: morpheaform variant (scar-like)

Pigmented BCC – may resemble melanoma

BCC

Although usually slow growing and rarely metastasizes, it can cause significant local destruction and disfigurement if left alone untreated

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Basal Cell Carcinoma

- Sun exposure is primary risk factor
- Most common sites on head (including ears), neck, scalp, upper trunk
- Look carefully at the nose, cheeks, ears, forehead which are especially prone to BCC

Squamous Cell Carcinoma
The second most common skin cancer

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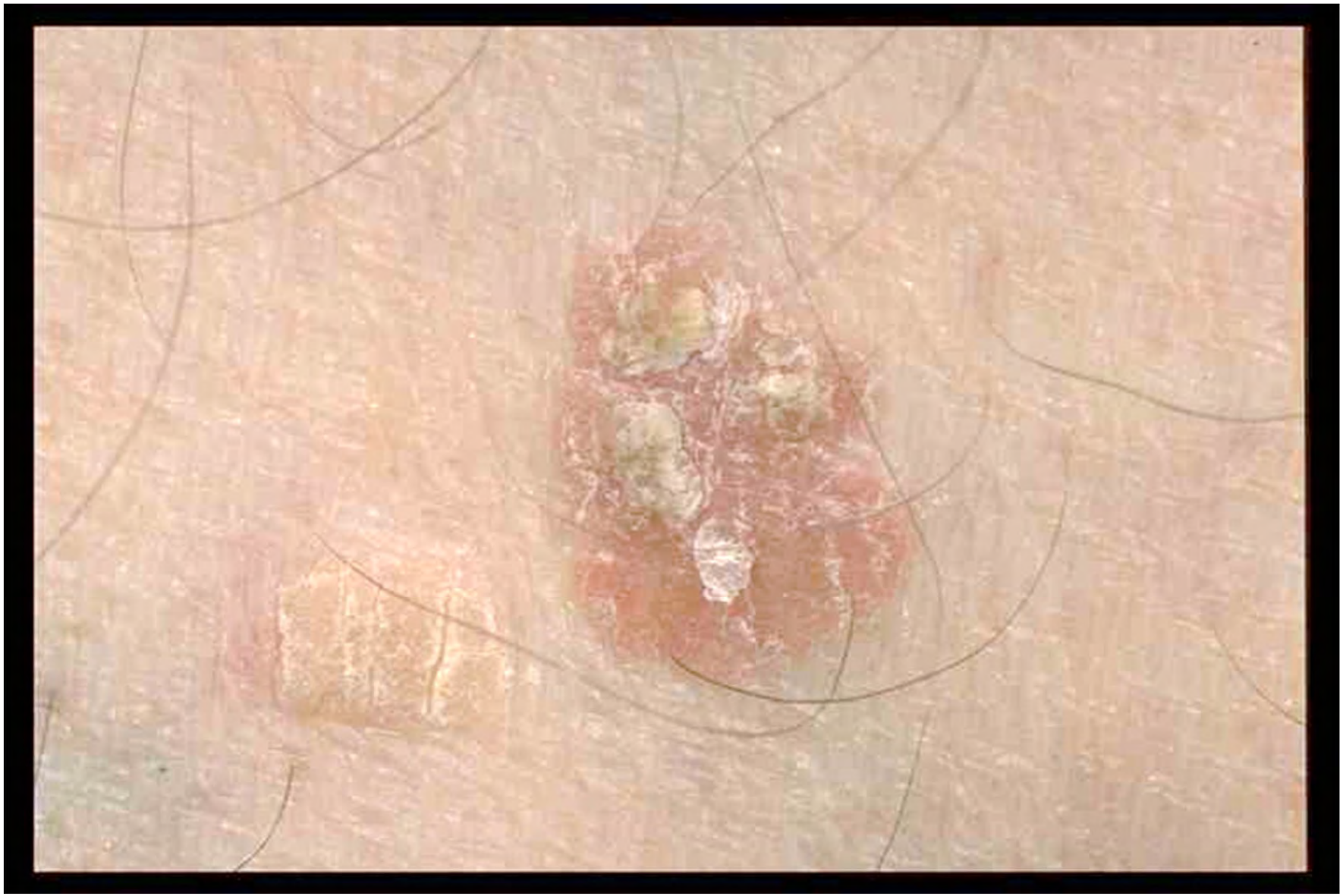
Squamous cell carcinoma

- Can occur anywhere, but most frequently on sun damaged skin
- Metastatic potential more than BCC

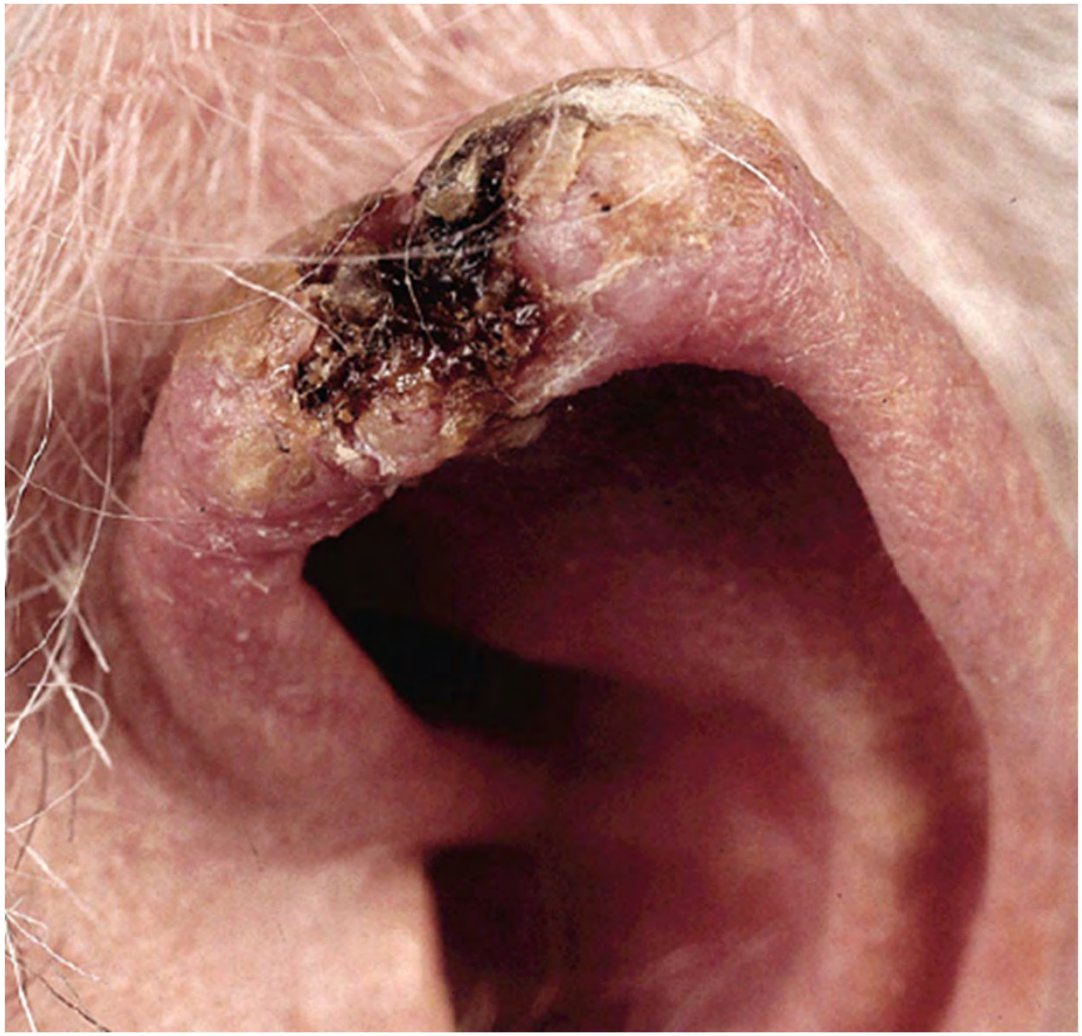
SCC: Rough, scaly lesion



SCC: Often on a firm, bump

SCC: Can be a persistent sore on the lip
These are high risk!

SCC: Or a non-healing lesion on the ear that bleeds easily



SCC: Can occur where you have a chronic wound

What are actinic keratosis or solar keratosis?

Actinic keratosis

- Felt by most to be a pre-cancerous lesion caused by UV exposure, most commonly found on sun exposed areas of the face, hands, upper arms
- A portion of these if left alone, may progress to SCC and so we treat these when we see them

Malignant Melanoma

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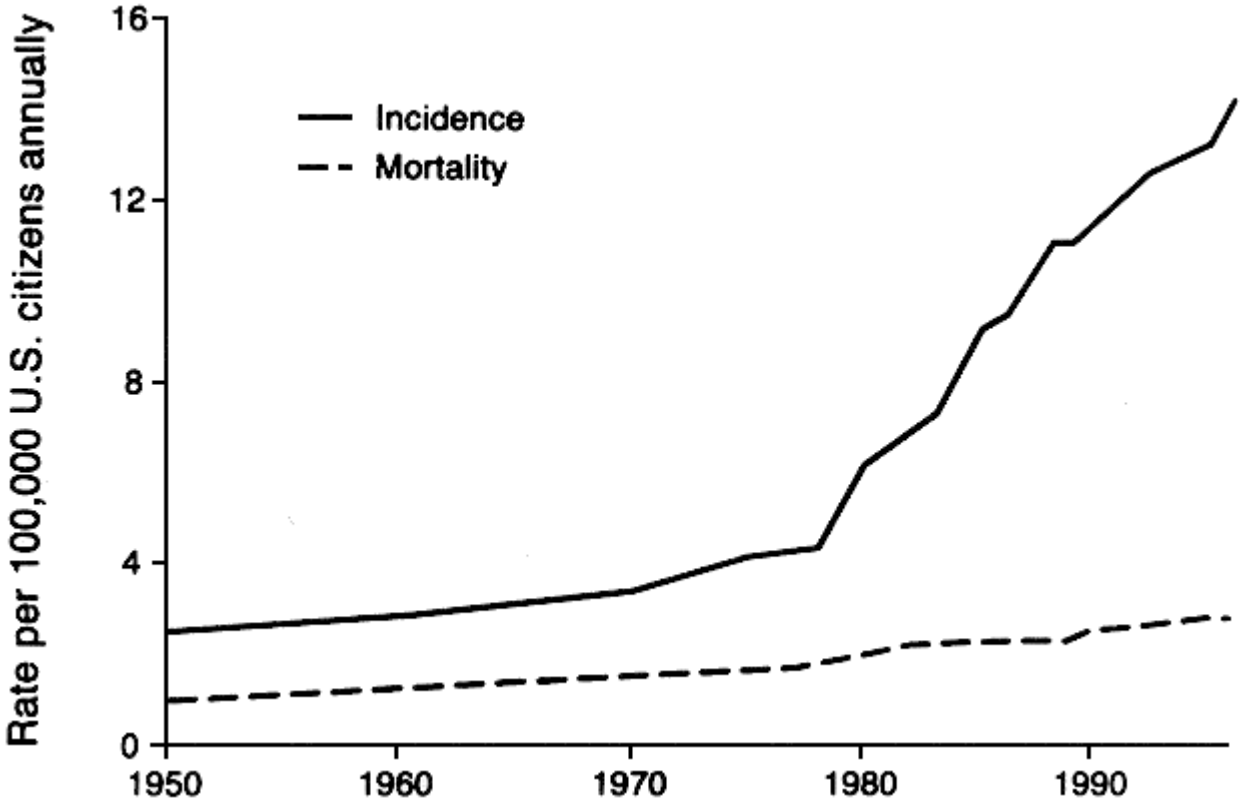
Incidence and Mortality



Incidence and mortality rate of melanoma in the United States, 1950-1996

Rigel, D. Mayo Clin Proc 1997;72:367-371

Melanoma

- <1 % of all skin cancers; but responsible for the majority of skin cancer-related deaths
- One person dies of melanoma every hour
- Most common cancer among 25-29 year olds
- Melanoma can develop in existing nevi; more than 60% may arise de novo

Melanoma

- Multiple pathways
- CDKN2A mutation in Familial atypical multiple mole melanoma syndrome
- BRAF most common in intermittently UV-exposed, NRAS is more common in chronically sun exposed, KIT in relatively unexposed skin (acral, mucosal)

Melanoma- The Enemy

EARLY DETECTION IS THE KEY TO SURVIVAL

The survival rate for patients whose melanoma is detected early is about 98%; survival rate falls to 15% for those with advanced melanoma

Melanoma

Early excision is most important as depth of the lesion is the best prognostic indicator

Nodular melanoma

- Most common on legs and trunk
- Can rapidly grow and this subtype is responsible for most of the thick melanomas

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Lentigo Maligna Melanoma

- Head , neck and arms of chronically sun-damaged skin
- Can grow slowly over many years

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Acral lentiginous melanoma

- Palms, soles, nails
- More common in African Americans, Hispanic and Asian persons

Ethnicity

Asian and African American melanoma patients have a greater tendency than Caucasians to present with acral melanoma and with advanced disease at time of diagnosis

Melanoma

- The most sensitive clinical marker for melanoma is change in an existing pigmented lesion!
- Look for moles that are changing in size, color or shape or that draw attention to themselves by bleeding or itching

ABCDE's of early melanoma detection

What to do?

- Protect yourself from the sun!
- Seek evaluation for new or changing lesions
- Get regular follow up

Basal Cell Carcinoma/ Squamous Cell Carcinoma Treatment

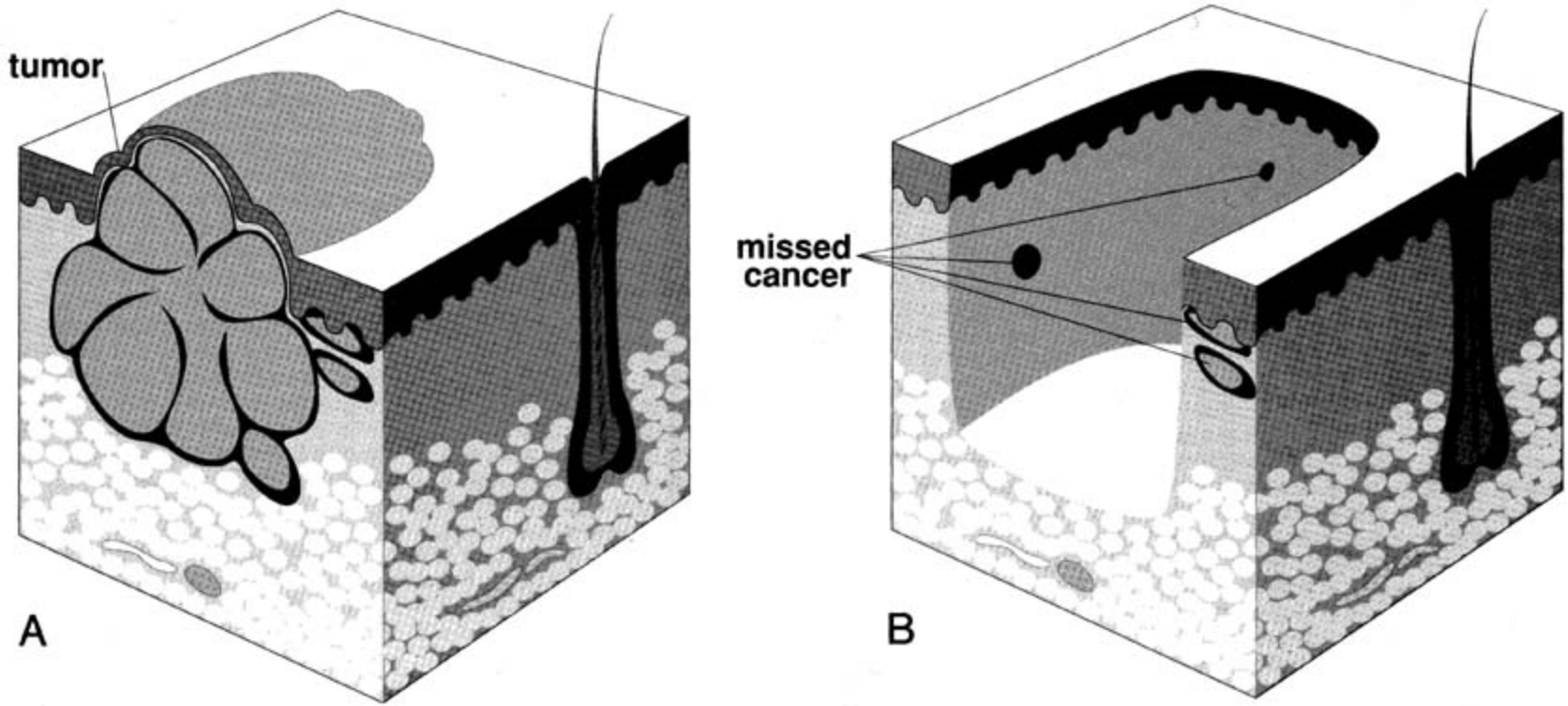
- Superficial types
  - Electrodessication and curettage
  - Topical medications eg. 5-fluorouracil (Efudex); imiquimod (Aldara)
  - Photodynamic therapy
- Non-superficial types
  - Standard excision
  - Mohs micrographic surgery
  - Radiation therapy
  - Systemic therapy (Vismodegib, Sonidegib, Chemotherapy)

  - Multidisciplinary Tumor Board for advanced skin cancer!

Mohs Micrographic Surgery

- Serial surgical excisions with microscopic examination of margins to trace and remove tumor
- Tissue sparing technique
  - all tumor extensions precisely identified
  - maximum amount of normal tissue preserved
- Ideal treatment for high risk tumors

Sub-Clinical Tumor Extension



Mohs Micrographic Surgery

Advantages

- 100% surgical margin examined with precise tumor mapping to ensure removal
- Highest cure rates (95-99%)
- Maximum tissue conservation
- Clear surgical margins on day of surgery allows immediate advanced reconstruction

Melanoma Treatment

- Dependent on depth and stage
- Excision dependent on depth and stage
- The earlier the stage the better the prognosis
- Multidisciplinary approach/tumor board for advanced melanoma

Prevention!

- Seek the shade, especially between 10am and 4pm
- Do not burn
- Cover up! (clothing, broad rimmed hats and UV sunglasses)
- Use broad spectrum UVA/UVB sunscreen- at least SPF 30
- Apply around 2 tablespoons of sunscreen to face/body 30minutes before going outside

The American Academy of Dermatology recommends consumers choose a sunscreen that states on the label:

BROAD SPECTRUM

Means a sunscreen protects the skin from ultraviolet A (UVA) and ultraviolet B (UVB) rays, both of which can cause cancer.

SPF 30 OR HIGHER

How well a sunscreen protects you from sunburn.

WATER RESISTANT OR VERY WATER RESISTANT

For up to 40 or 80 minutes. Sunscreens are not waterproof or sweatproof and need to be reapplied.

Prevention!

- Keep newborns out of the sun. Sunscreens should be used on babies > 6 months.
- Examine your skin head-to-toe every month
- See your doctor every year for a professional skin exam
  - **On your birthday, examine your birthday suit!**

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