Skin Cancer and Skin Care

JULIE A. HODGE, MD, MPH
ASSISTANT CLINICAL PROFESSOR, UC IRVINE
PRIVATE PRACTICE, FULLERTON

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What Is Skin Cancer?
Skin cancer is a malignant condition that begins with the uncontrolled growth of abnormal cells typically in the top layer of the skin.

There are two broad categories of skin cancers:

Melanoma
Non-melanoma

Both can occur when skin DNA damaged by ultraviolet radiation (UVR) is not properly repaired by the immune system.

Skin Cancer Facts

Skin cancer is the most common form of cancer in the United States.

3,500,000+

More than 3.5 million skin cancers in over two million people are diagnosed annually.

One in five Americans will develop skin cancer in the course of a lifetime.

More than 25 Americans die each day from skin cancer, primarily melanoma (the deadliest form of skin cancer). More than one person dies of melanoma every hour.

The survival rate for patients whose melanoma is detected early is about 99%. The survival rate falls to 15% for those with advanced disease.

Types Of Skin Cancer

There are Three Main Types of Skin Cancers:

- Basal Cell Carcinoma
- Squamous Cell Carcinoma
- Melanoma

2.8 Million cases diagnosed every year
700,000 cases diagnosed every year
76,000+ cases diagnosed every year
Actinic Keratosis

What to Look For:
- Small crusty or horn-shaped, scaly bumps that arise on or beneath the skin surface.
- Often red, but may be tan, pink, red, or the same color as your skin.
- Sometimes itchy; can also become inflamed and occasionally bleed.
- Usually grow from 1/8” – 1/4” (2mm – 4mm), but can be larger.

Squamous Cell Carcinoma (SCC)

700,000 Cases Annually
- Squamous cell carcinoma (SCC) is the second most common skin cancer, with about 700,000 cases diagnosed in the US each year.
- Up to 10 percent of SCCs spread to distant tissues and organs.
- SCC causes about 2,500 deaths per year.

SCC: What To Look For
- A wart-like growth that cruts and occasionally bleeds.
- An open sore that bleeds and crusts, persisting for weeks.
- An elevated growth with a central depression that occasionally bleeds.
- A persistent, scaly red patch with irregular borders that may crust or bleed.
Common Skin Cancer Areas

- Squamous cell carcinomas, basal cell carcinomas, and actinic keratoses most often appear on parts of the body that have sustained chronic sun exposure over many years:
  - Balding Scalp
  - Face and Lips
  - Ears
  - Shoulders and Neck
  - Backs of Hands and Forearms

Basal Cell Carcinoma (BCC)

- 2,800,000 Cases Annually

- Basal cell carcinoma is the most common form of skin cancer, with about 2.8 million cases diagnosed annually in the US.

Basal Cell Carcinoma

- Basal cell carcinoma are abnormal, uncontrolled growths or lesions that arise in the skin’s basal cells, which line the deepest layer of the epidermis (the outermost layer of the skin).

Melanoma

- Melanoma is the deadliest form of skin cancer, but when caught early is almost always curable.

- Moles with certain characteristics – the ABCDEs – are early warning signs of melanoma:
  - Asymmetry
  - Border
  - Color
  - Diameter
  - Evolving

Seborrheic keratosis

- Seborrheic keratosis.
Treatment Options

Cryosurgery
Used for treating AK.

- A cotton-tipped applicator or spray gun filled with liquid nitrogen, cooled to -40°C or below, is applied to the lesion for several seconds. After 1-3 weeks, the dead tissue sloughs off.

Cryosurgery is the most commonly used treatment for individual AKs.

Topical Medications
Used for treating AK, BCC, SCC.

- Solaraze®
A gel combining hyaluronic acid with the anti-inflammatory drug diclofenac may be effective as well for actinic keratoses.

- Ingenol Mebutate (Picato®)
A newly FDA-approved gel, is the first topical therapy to treat AKs in just two to three days.

- 5-fluorouracil (5-FU) (Carac®, Efudex®)
A cream or solution is the most widely used topical treatment.

- Imiquimod (Alitretin®, Zyclara®)
A cream which stimulates the immune system to produce cancer-fighting interferon.

Treatment Options

Excisional Surgery
Used for treating BCC, SCC, Melanoma.

- The physician administers a numbing local anesthetic before excising the cancer and a safety margin with a scalpel. The area is then closed with stitches.

Curettage-electrodesiccation
Used for treating AK, BCC, SCC.

- The growth is scraped off with a curette, a ring-shaped instrument, before a burning, high-frequency current is applied to the lesion to destroy any residual tumor and to control bleeding.

Mohs Micrographic Surgery
Used for treating BCC, SCC, Melanoma.

- The visible tumor, along with a very thin layer of healthy tissue, is excised, frozen and immediately examined under a microscope for malignant cells.

- The procedure is repeated until the last layer of tissue examined is tumor-free. This procedure allows for the removal of the smallest amount of healthy tissue while assuring that tumor cells have been removed.

- Once clear, the area is often closed with reconstructive techniques to ensure the best possible cosmetic outcome. Mohs surgery generally has the highest cure rates of any treatment.

Skin Care

- Skin cancer prevention
- Prevention of photoaging
- Restore and preserve barrier function
Prevention and Therapy

- “The idea is to die young as late as possible”
- Ashley Montagu, anthropologist (1905-1999)

Sun Protection

- Broad spectrum sunscreen UVA/UVB SPF 30 or more
- Sun protective clothing: hats
- Tilley
- Rash guards for swimming
- Get vitamin D through diet and supplements
- Under 70yrs 600 iu Vit D3, Over 70yrs 800 iu Vit D3

Ultraviolet Light

**UVA**
- “Tanning” rays
- Penetrate deeply into the skin
- Cause suntan, sunburn, and sun damage

**UVB**
- “Burn” index
- Cause suntan, sunburn, and sun damage
- Causes long term tanning

Sunscreen

- UVB protection vs. SPF
Prevention and Therapy

- Nicotinamide (vit B3) 500mg twice a day
  - Australian study: reduced incidence of BCC 20%, SCC 30% and AK 11% after 1 year
- Antioxidants
  - Topical vitamins C and E, green tea
  - Oral Helocare (Polypodium leucotomos)

Prevention and Therapy

- Avoid harsh soaps, use soft water
- Want an acid pH
- Superfatted soaps (Dove, Caress, Tone, Basis)
- Be careful of bath oils as they may increase risk of falling

Prevention and Therapy

- Reduce pressure, friction, shearing forces
- Stay cool and dry
- Skin protectants
  - Aquaphor, Vaseline
  - Zinc oxide- Triple Paste, Desitin

Prevention and Therapy

- Moisturizers
  - Ceramides
  - Alpha/beta hydroxy acids (glycolic, salicylic, lactic acids)
  - CeraVe, Cetaphil, Eucerin, Aveeno, Neutrogena, Amlactin

Solar Purpura

Poor resistance of shearing force due to thinning of the skin and changes in the elastic fibers

Dermend

- Retinol, Retinol helps renew and rejuvenate the look of skin
- Alpha Hydroxy Acids (AHA)
- Arnica Oil
- Ceramides
- Niacinamide
- Phytonadione (a form of vit K)
- Use twice a day on forearms and hands
Topical Treatments

- Retinoids
- Growth factors
- Lightening agents

Other Treatments

- Liquid nitrogen
- Chemical peels
- Lasers/Intense pulsed light
- Fillers – face and hands
- BOTOX
- Latisse

Julie Hodge, MD, MPH
1440 N. Harbor Blvd, Ste 300, Fullerton
714 526-SKIN (7546)

- [Website](http://www.juliehodgemd.com)
- Facebook Julie A. Hodge, M.D.