

## Chapter 5.2

# Skin Cancer



# Skin Cancer

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- induced by the **ultraviolet rays of the sun**
  - most often on the head and neck
  - most common in fair-skinned people and the elderly
  - one of the most common cancers
  - one of the easiest to treat
  - has one of the highest survival rates if detected and treated early
  - **three types** of skin cancer named for the epidermal cells in which they originate
    - basal cell carcinoma
    - squamous cell carcinoma
    - malignant melanoma

# Basal Cell Carcinoma

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(a) Basal cell carcinoma

- most common type
- least dangerous because it seldom metastasizes
- forms from cells in stratum basale
- lesion is small shiny bump with central depression and beaded edges

# Squamous Cell Carcinoma

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(b) Squamous cell carcinoma

- arise from keratinocytes from stratum spinosum
- lesions usually appear on scalp, ears, lower lip, or back of the hand
- have raised, reddened, scaly appearance later forming a concave ulcer
- chance of recovery good with early detection and surgical removal
- tends to metastasize to lymph nodes and may become lethal

# Malignant Melanoma



(c) Malignant melanoma

- skin cancer that arises from melanocytes
- often in a preexisting mole
- less than 5% of skin cancers, but most deadly form
- treated surgically if caught early
- metastasizes rapidly - unresponsive to chemotherapy - usually fatal
- person with metastatic melanoma lives only 6 months from diagnosis
- 5% - 14% survive 5 years
- greatest risk factor – familial history of malignant melanoma
- high incidence in men, redheads, people who experience severe sunburn in childhood

# UVA, UVB and Sunscreens

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- UVA and UVB are **improperly called “tanning rays” and “burning rays”**
- **both thought to initiate skin cancer**
- sunscreens protect you from sunburn but unsure if provide protection against cancer
  - chemical in sunscreen damage DNA and generate harmful free radicals