

# Sun Effects on Skin

## Sun Damage

- Texture changes: solar elastosis (thickened, wrinkled, yellow skin), wrinkles, atrophy
- Vascular changes: diffuse erythema, ecchymoses, stellate pseudoscars, telangiectasias, venous lake
- Pigmentation changes: freckles, lentigo, guttate hypomelanosis, brown and white pigmentation, poikiloderma of Civatte
- Papular changes: nevi, yellow papules, seborrheic keratosis, comedones/cysts around the eyes

## Skin cancer

- Basal cell: pearly white, dome-shaped papule with telangiectatic surface vessels
- Squamous cell: firm, smooth, or hyperkeratotic papule or plaque with central ulceration. 60% occur at site of former actinic keratosis.
- Melanoma: superficial spreading type (70%), nodular melanoma (15-30%), lentigo maligna melanoma (4-10%), acral lentiginous melanoma (2-8%)

## Detection of melanoma

- ABCD checklist: asymmetry, border irregularity, color variation, diameter >6 mm
- 7 point checklist: change in size, shape or color (major signs), inflammation, crusting/bleeding, sensory change, diameter > 7 mm (minor signs).

At this point USPSTF does not have sufficient evidence to recommend for/against routine screening for suspicious skin lesions in the general population.

## Very high risk factors for skin cancer (>10x general population)

- Current immunosuppressive therapy after organ transplant
- Personal history of skin cancer
- 2+ first degree relatives with melanoma
- Total of 100 nevi or 5+ atypical nevi
- >250 treatments with UVA plus psoralen for psoriasis
- Radiation therapy as a child

## Fun Facts

- A study showed that regular use of a sunscreen with an SPF of 15 during the first 18 years of life reduces the lifetime incidence of basal and squamous cell carcinoma by 78%.
- One in six Americans develop skin cancer at some point.
- Basal cell and squamous cell incidence is directly correlated with latitude (ie, those near the equator with greater UV exposure have greater incidence of these cancers).
- Melanoma risk is directly related to annual UV exposure but there is no clear evidence for a correlation with latitude.

## Citations

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