Skin cancer. Melanoma

UV radiation increase risk of skin cancer on 70%

Common Premalignant and Malignant Neoplasms of the Skin

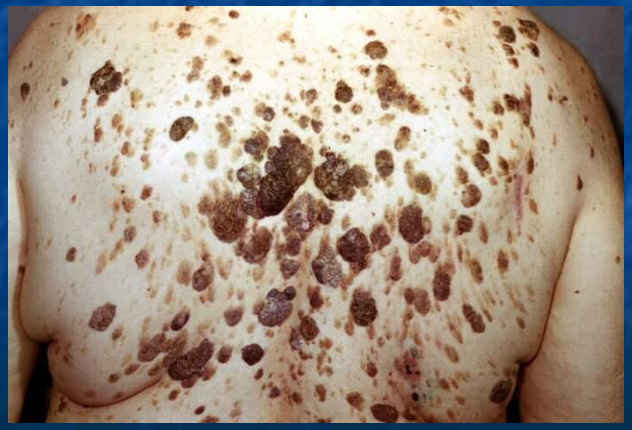
	Premalignant	Malignant
Epidermis	Keratoacanthoma Actinic keratosis Arsenical keratosis HPV-induced premalignant papules (epidermodysplasia verruciformis, bowenoid papulosis) Mucosal leukoplakia	Basal cell carcinoma Merkel cell carcinoma Squamous cell carcinoma
Dermal		Dermatofibrosarcoma protuberans Malignant fibrous histiocytoma Angiosarcoma
Appendageal	Nevus sebaceous	Sebaceous carcinoma Extramammary Paget disease
Benign cutaneous tumors associated with cancer syndromes Trichilemmomas → Cowden disease (breast/visceral tumors) Sebaceous tumors → Muir-Torre syndrome (GI/GU tumors) Mucosal neuromas → MEN type IIB (thyroid carcinoma/pheochromocytoma)		

Obligate precancerous

Pigment kseroderma, Bowen disease, Eritroplasia Keyra

Facultative precancerous

Keratoacantoma of nose, Diskeratosis in old man, seborrhea keratosis, skin horn



BASAL CELL CARCINOMA
Definition

Basal
cell carcinoma is a malignant tumor that rarely metastasizes. It is composed of cells that arise from the epidermis and the appendages which resemble the basal layer of the epidermis and is associated with a characteristic stroma. It tends to grow slowly and invade locally over many years, which eventually leads to ulceration, hence the name “rodent ulcer.”

Epidemiology

Basal cell carcinomas account for more than 75% of keratinocytic skin cancers diagnosed in the United States each year. The incidence of basal cell carcinoma varies from 422 per 100,000 general population in Kauai, Hawaii, to 146 per 100,000 in Rochester, Minnesota. The average annual incidence in the United States is 191 per 100,000 white persons. It is the most common form of skin cancer in whites. It is very rare in darkly pigmented people. It most frequently occurs in persons older than 40 years of age. The frequency is slightly higher in males. Other risk factors include geographic locations with high solar intensity, exposures to inorganic trivalent arsenic, ionizing radiation, and immunosuppression.

Basal cell carcinoma

Basal cell carcinoma
(pigment form)

Ulcerous type

(ulcus rodens)

(Basalioma terebrans)

Perforating basalioma

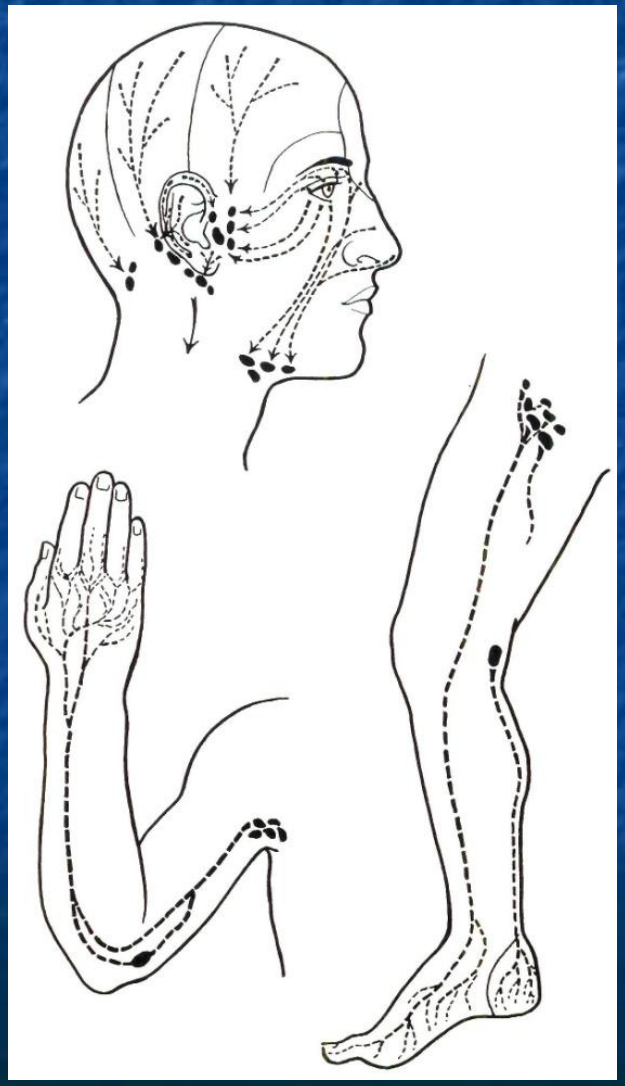
Cryosurgery

Basal cell carcinoma before and after cryosurgery

SQUAMOUS CELL CARCINOMA. Definition

Squamous cell carcinoma is a malignant tumor arising from epidermal or appendageal keratinocytes
or from the squamous mucosal epithelium.
There is often a history of damage by exogenous agents acting as carcinogens, such as sunlight, ionizing radiation, local irritants, or arsenic ingestion. The tumor cells have a tendency toward keratin formation.

Ways of lymphatic spread



Cancer of skin

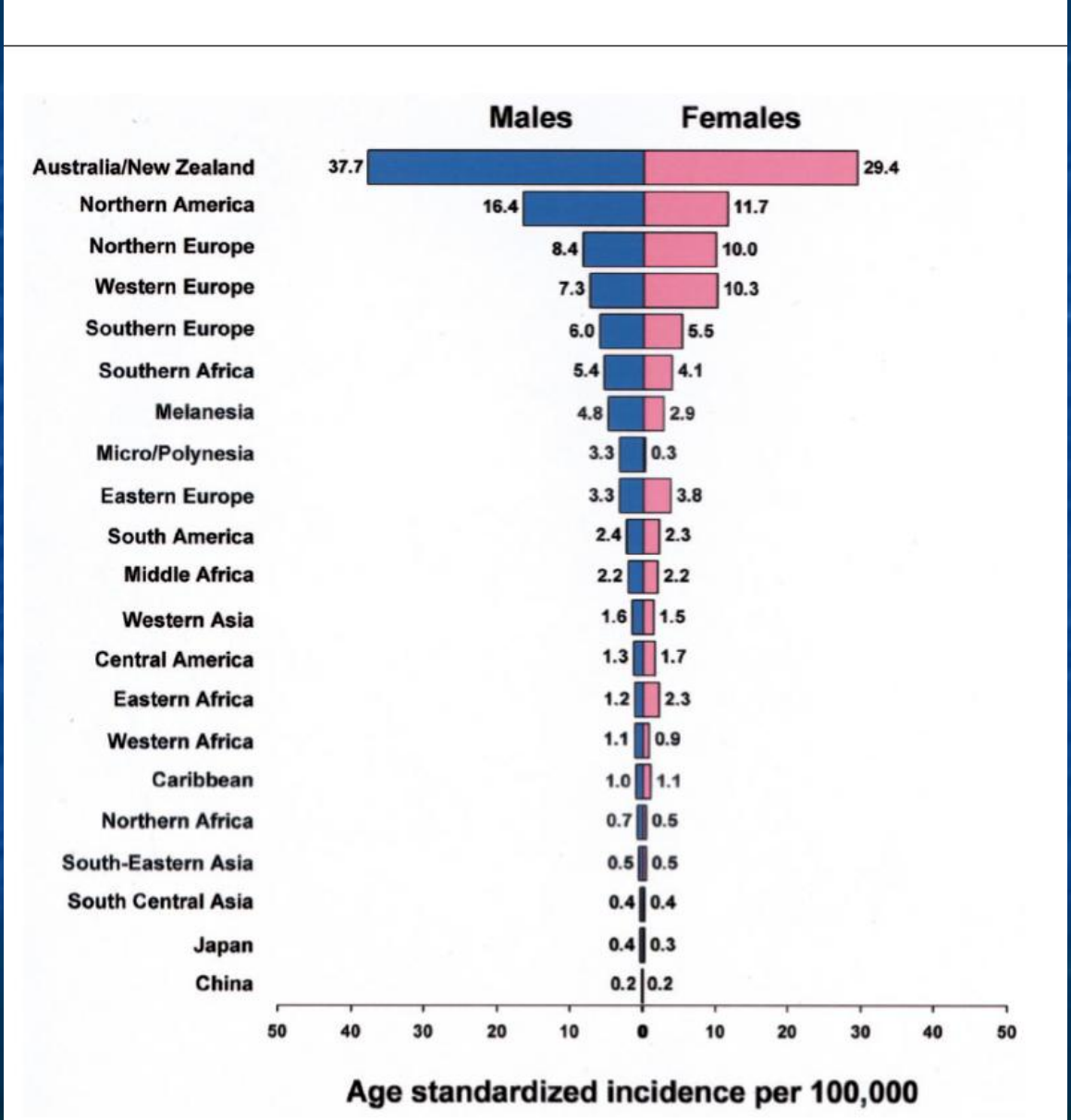
Cancer of skin (exophyt form)

Cancer of skin. Advanced form

Epidemiology

Malignant melanoma of skin accounts for 160,000 new cases annually, with slightly more occurring in women than in men (M:F sex ratio, 0.97). It is a tumor particularly common in White populations living in sunny climates. High rates of incidence are found in Australia/New Zealand, North America, and northern Europe

Melanoma


Males
Females
Australia/New Zealand 37.7 29.4
Northern America 16.4 11.7
Northern Europe 8.4 10.0
Western Europe 7.3 10.3
Southern Europe 6.0 5.5
Southern Africa 5.4 4.1
Melanesia 4.8 2.9
Micro/Polynesia 3.3 0.3
Eastern Europe 3.3 3.8
South America 2.4 2.3
Middle Africa 2.2 2.2
Western Asia 1.6 1.5
Central America 1.3 1.7
Eastern Africa 1.2 2.3
Western Africa 1.1 0.9
Caribbean 1.0 1.1
Northern Africa 0.7 0.5
South-Eastern Asia 0.5 0.5
South Central Asia 0.4 0.4
Japan 0.4 0.3
China 0.2 0.2
50 40 30 20 10 0 10 20 30 40 50
Age standardized incidence per 100,000

Epidemiology

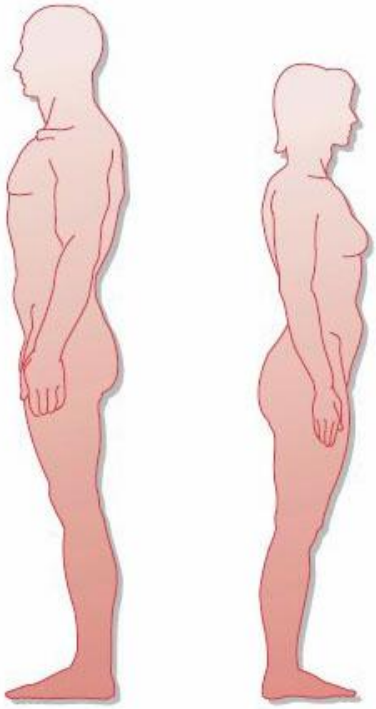
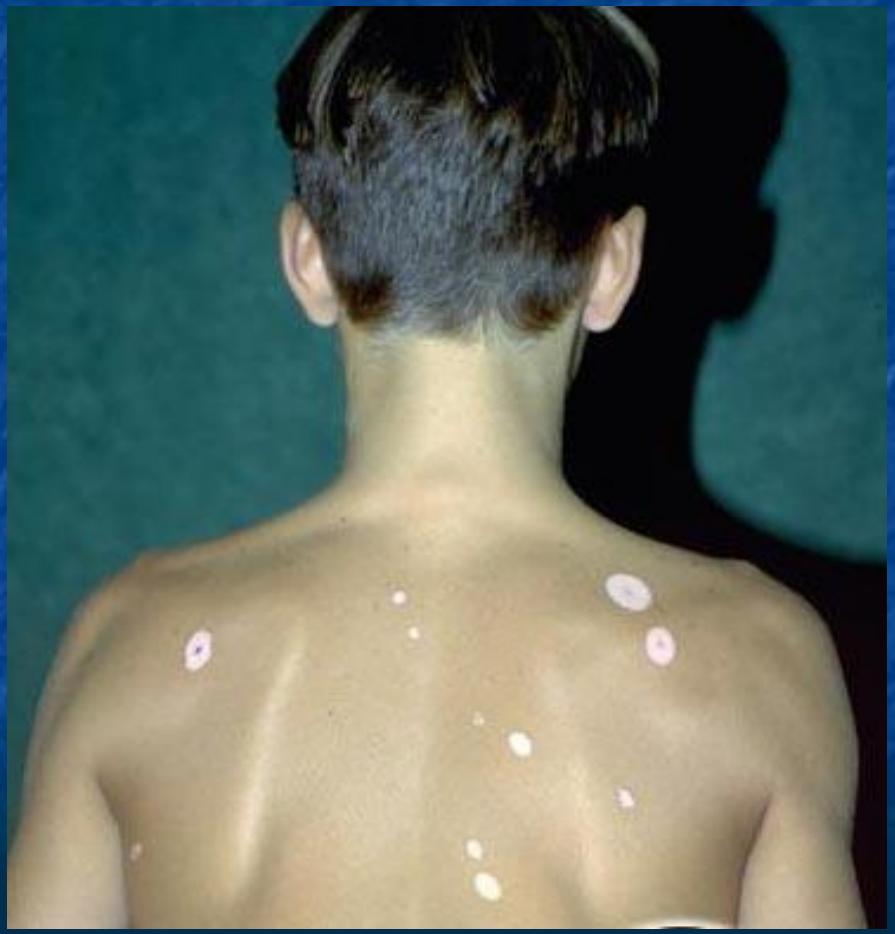
		Men 637.500	Women 647.400		
Prostate	30%			31%	Breast
Lung & bronchus	14%			12%	Lung & bronchus
Colon & rectum	11%			12%	Colon & rectum
Urinary bladder	7%			6%	Uterine corpus
Non-Hodgkin lymphoma	4%			4%	Non-Hodgkin lymphoma
Melanoma of skin	5%			4%	Ovary
Oral cavity	3%			4%	Melanoma of skin
Kidney	3%			2%	Urinary bladder
Leukemia	3%			2%	Pancreas
Pancreas	2%			2%	Thyroid
All other sites	19%			20%	All other sites

Figure 27-2 Estimated percentage of new cancer cases for 10 leading sites by sex, United States, 2002. *Excludes basal and squamous cell cancers and in situ carcinomas except urinary bladder. Source: American Cancer Society: Cancer Facts and Figures, 2002.

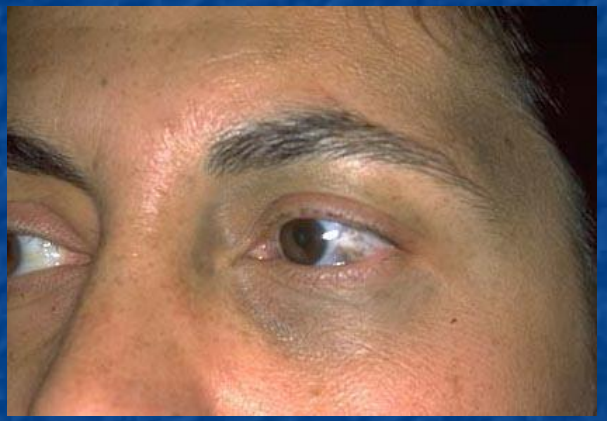
Dangerous nevus

Nevus of Settona, Intradermal nevus, Blue nevus



Dangerous nevus

gigantic nevus, Oto's nevus, Ito's nevus



Dangerous nevus
Melanoz of Dubrea

Normal Mole	Melanoma	Sign	Characteristic
		Asymmetry	when half of the mole does not match the other half
		Border	when the border (edges) of the mole are ragged or irregular
		Color	when the color of the mole varies throughout
		Diameter	if the mole's diameter is larger than a pencil's eraser

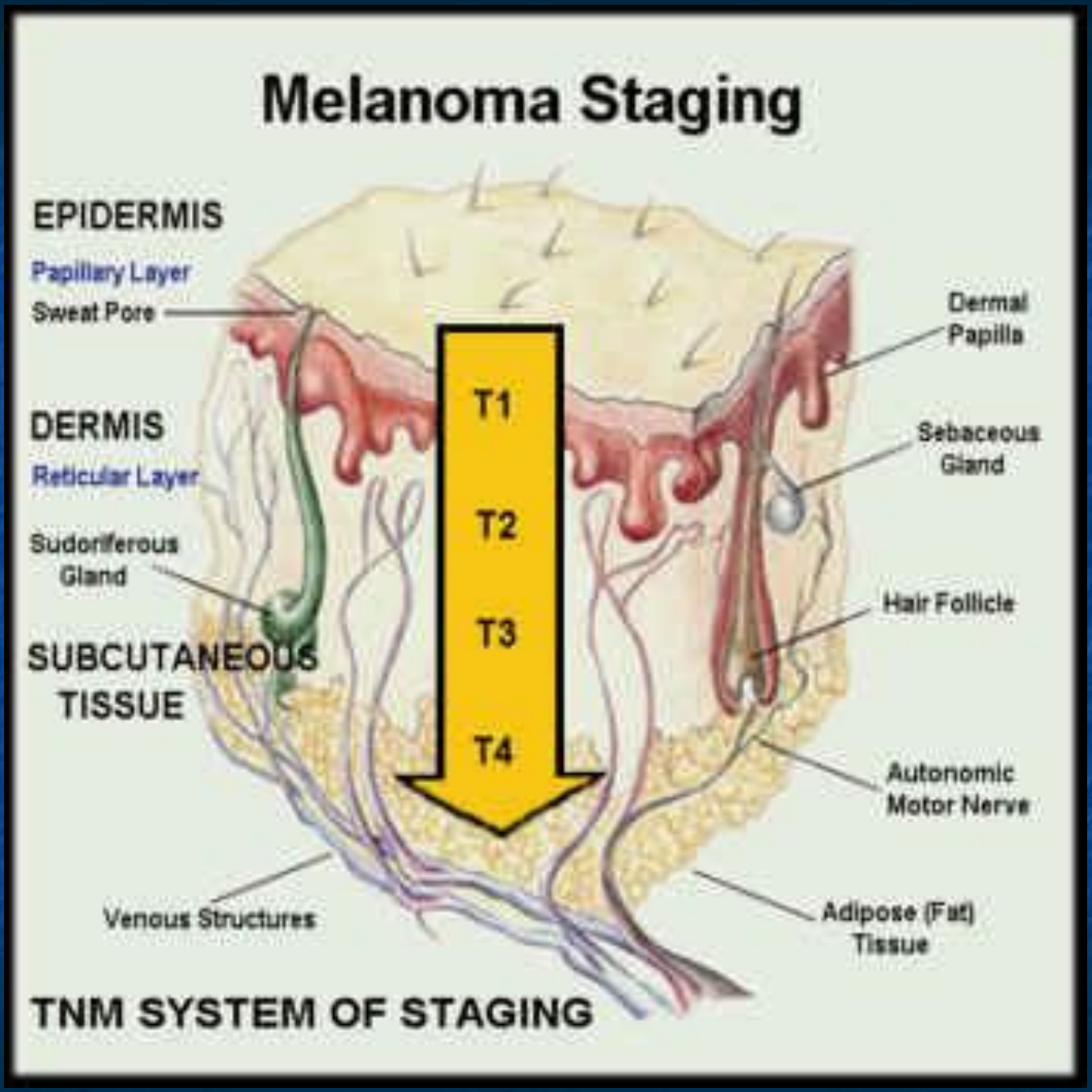
Photographs Used By Permission: National Cancer Institute

Melanoma

Differential Clinical Features of the Common Types of Melanoma

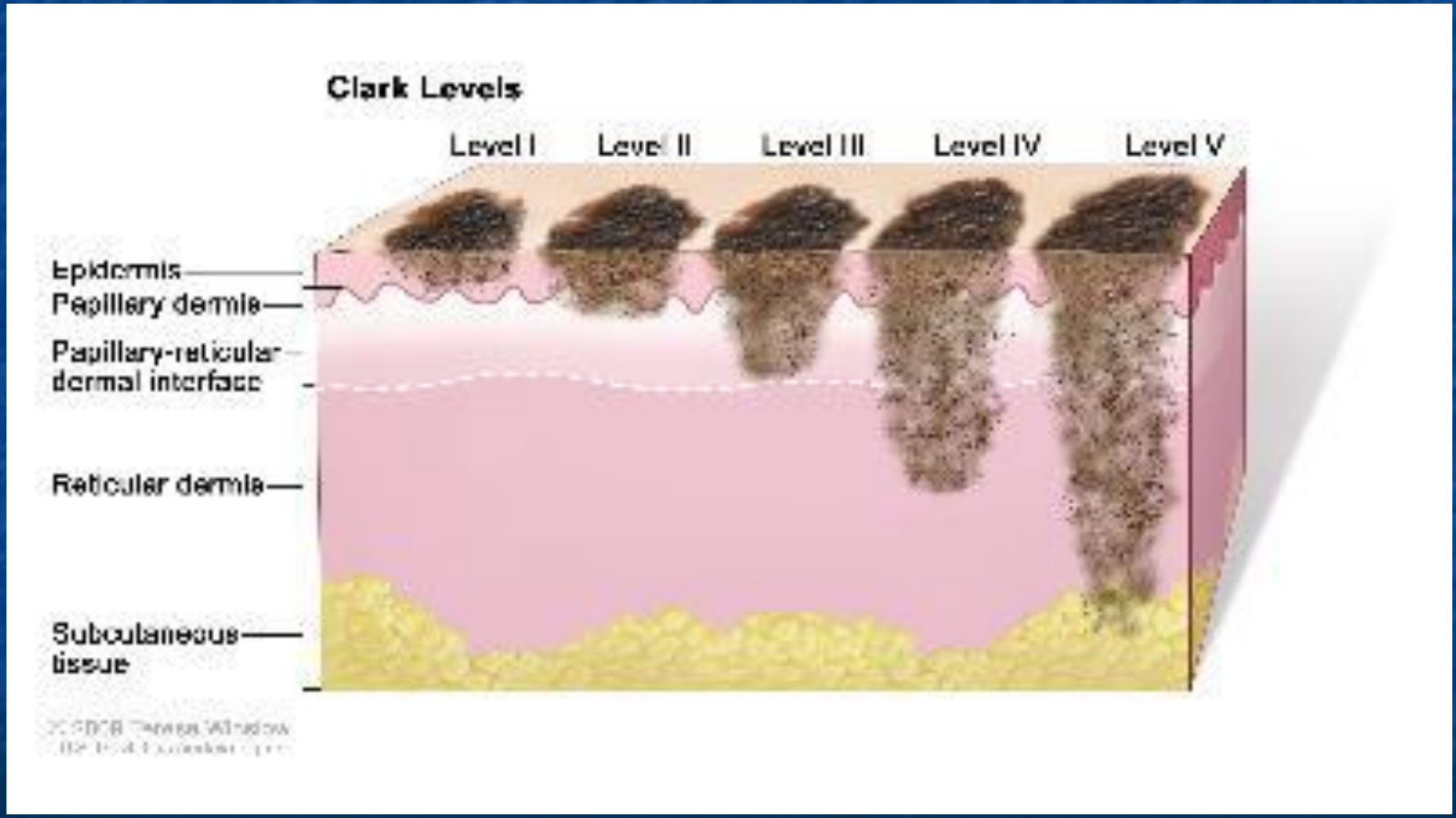
Type of Melanoma	Common Location	Median Age (Years)	Gender Predilection	Duration	Identifying Feature of the Radical Growth Phase[a]
Lentigo maligna	Sun-exposed surfaces (head and neck most common)	70	None	5–15 years	Flat, shades of tan to black, frequent areas of hypopigmentation
Superficial spreading	All body surfaces	56	Males' head, neck, trunk; females' lower legs	1–5 years	Flat to slightly raised; irregular margins; shades of brown, black, pink; areas of hypopigmentation
Nodular	All body surfaces	49	None overall; males' head, neck, trunk	1 month–2 years	None
Acral-lentiginous	Volar and subungual areas	59	Slight female predominance	2 months–10 years	Tan to dark-brown macule
Mucosal lentiginous	Oral, ocular, and genital mucosa	56	Slight male preponderance, but varies geographically	4–20 years	Tan to dark-brown macular area

Melanoma Staging



TNM SYSTEM OF STAGING

Clark's method of microstaging defines five levels of penetration through the dermis to the subcutaneous fat



Satellites of skin's melanoma