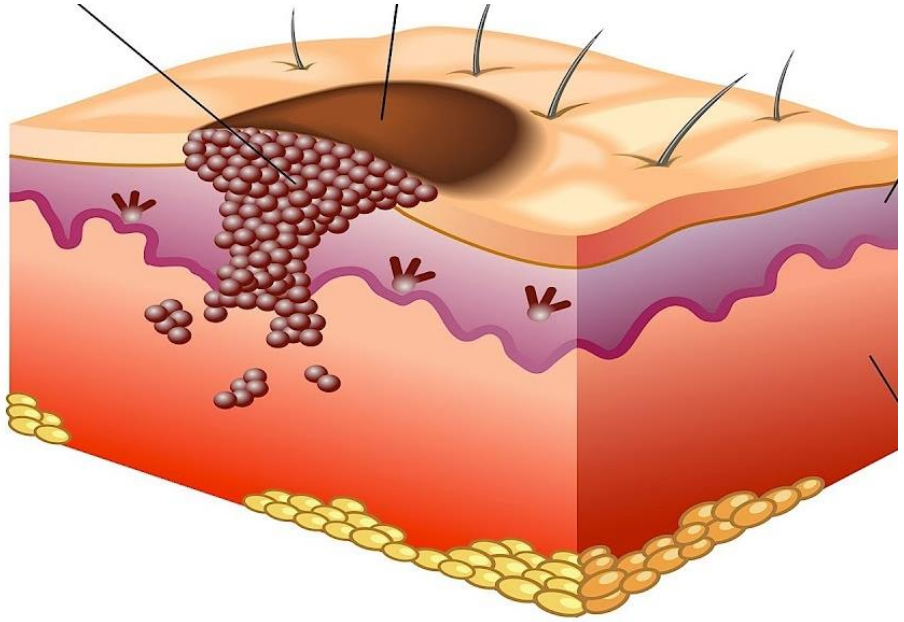
وزراة التعليم العالي والبحث العلمي
كلية المعارف الجامعة
قسم المختبرات الطبية

Skin cancer



Histopathology

المرحلة الرابعة

- **Skin cancer :**

- Skin cancer **is** the abnormal growth of skin cells, which often develop on skin exposed to the sun, including the scalp, face, lips, ears, neck, chest, arms, hands, and legs. But it can also form on areas that rarely see the light of day your palms, beneath fingernails or toenails, and other area of the skin.

- We can reduce your risk of skin cancer by limiting or avoiding exposure to ultraviolet (UV) radiation. Checking your skin for suspicious changes can help detect skin cancer at its earliest stages. Early skin cancer detection gives you the greatest chance for successful treatment.

- Skin cancer affects people of all skin tones, including those with darker complexions. When melanoma occurs in people with dark skin tones, it's more likely to occur in areas not normally exposed to the sun, such as the palms of the hands and soles of the feet.

. **There are three major types of skin cancer**

- basal cell carcinoma

-squamous cell carcinoma

- melanoma.

Basal cell carcinoma

- Basal cell carcinoma usually occurs in sun-exposed areas of the body, such as the neck or face.
- **Basal cell carcinoma may appear as:**
- A pearly or waxy bump
- A flat, flesh-colored, or brown scar-like lesion
- A bleeding or scabbing sore that heals and returns

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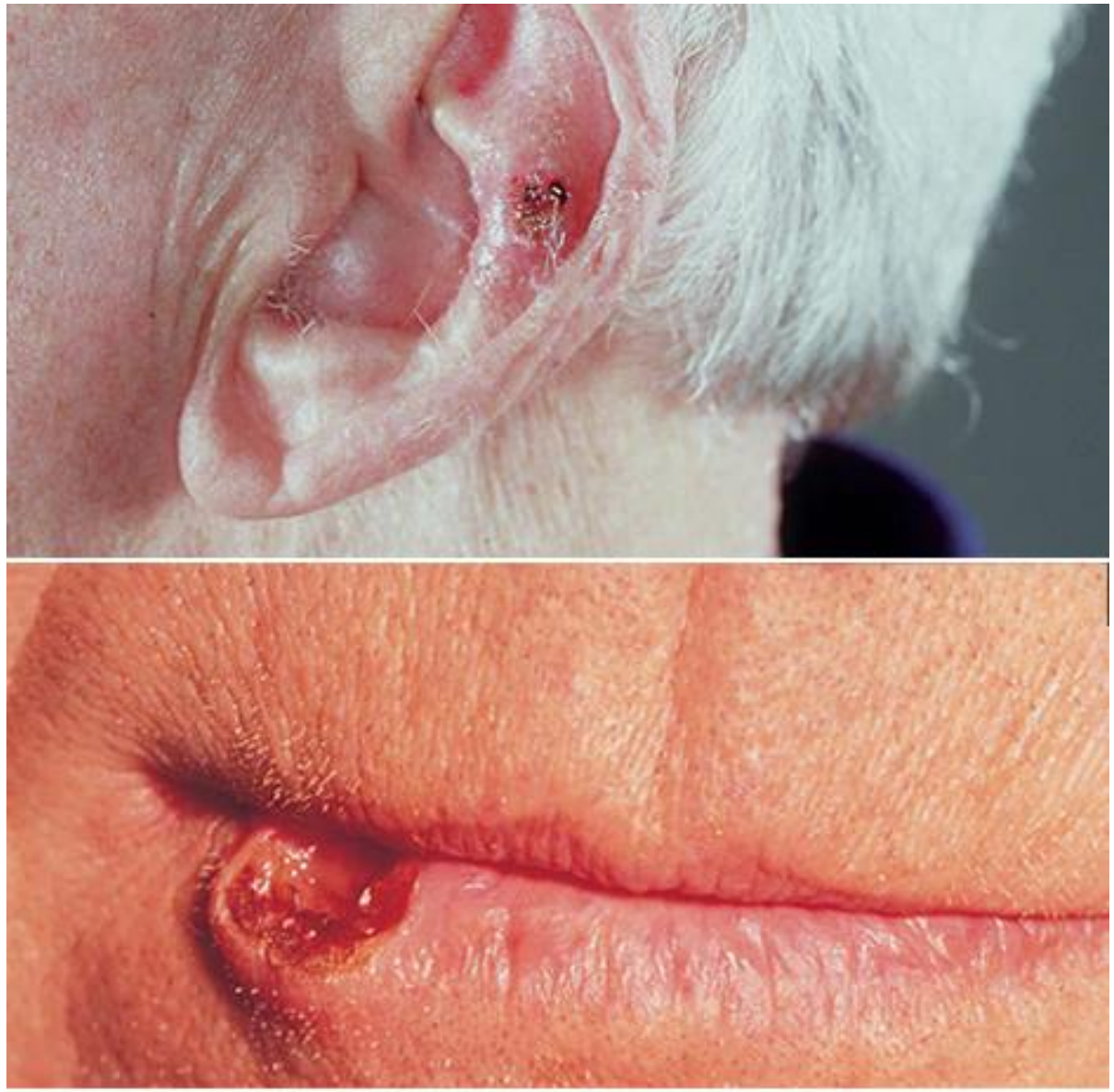
Squamous cell carcinoma

- Most often, squamous cell carcinoma occurs on sun-exposed areas of your body, such as the face, ears, and hands. People with darker skin are more likely to develop squamous cell carcinoma in areas that aren't often exposed to the sun.
- Squamous cell carcinoma may appear as:
- A firm, red nodule
- A flat lesion with a scaly, crusted surface



Melanoma skin cancer

- Melanoma can develop anywhere on the body, in otherwise normal skin or in an existing mole that becomes cancerous. Melanoma most often appears on the face or the trunk of affected men. In women, this type of cancer most often develops on the lower legs.
- In both men and women, melanoma can occur on skin that hasn't been exposed to the sun.

- Melanoma can affect people of any skin tone. In people with darker skin tones, melanoma tends to occur on the palms or soles, or under the fingernails or toenails.

Melanoma signs include:

- A large brownish spot with darker speckles.
- A mole that changes in color, size, or feel or that bleeds.
- A small lesion with an irregular border and portions that appear red, pink, white, blue, or blue-black

- A painful lesion that itches or burns
- Dark lesions on your palms, soles, fingertips, or toes, or mucous membranes lining your mouth, nose, or other area.

Types of skin cancer include:

- **Kaposi sarcoma.** This rare form of skin cancer develops in the skin's blood vessels and causes red or purple patches on the skin or mucous membranes.
- Kaposi sarcoma mainly occurs in people with weakened immune systems, such as people with AIDS, and in people taking medications that suppress their natural immunity, such as people who've undergone organ transplants.
- Other people with an increased risk of Kaposi sarcoma include young men living in Africa or older men of Italian or Eastern European Jewish heritage.

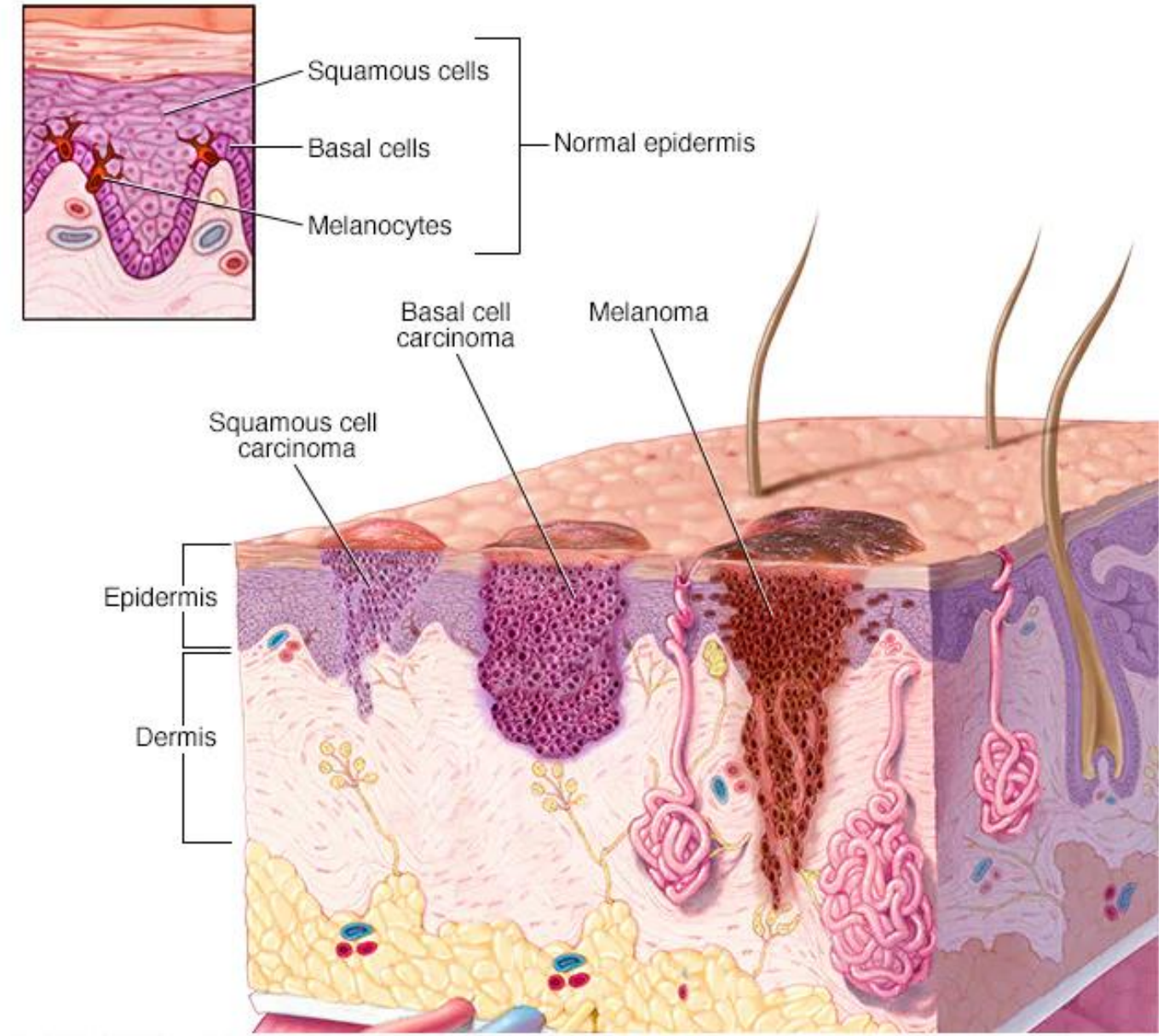
Merkel cell carcinoma. Merkel cell carcinoma causes firm, shiny nodules on or beneath the skin and in hair follicles. Merkel cell carcinoma is often found on the head, neck, and trunk.

Sebaceous gland carcinoma. This uncommon and aggressive cancer originates in the oil glands in the skin. Sebaceous gland carcinomas which usually appear as hard, painless nodules can develop anywhere, but most occur on the eyelid, where they're frequently mistaken for other eyelid problems.

Cells involved in skin cancer

- **Skin cancer** begins in the skin's top layer the epidermis. The epidermis is a thin layer that provides a protective cover of skin cells that the body continually sheds.
- **The epidermis contains three main types of cells:**
- **Squamous cells** lie just below the outer surface and function as the skin's inner lining.

- **Basal cells**, which produce new skin cells, sit beneath the squamous cells.
- **Melanocytes**: which produce melanin, the pigment that gives skin its normal color are located in the lower part of your epidermis. Melanocytes produce more melanin when you're in the sun to help protect the deeper layers of your skin.



Pathophysiology of skin cancers

UV light damages the DNA of the skin by inducing free radicals in the cells. Free radicals are also found in cigarette smoke and environmental pollutants. The free radicals cause damage to the DNA double helix, changing the cells' repairing mechanism, and replication and also inhibiting apoptosis (programmed cell death). The cell thereby evolves into an invasive skin cancer.