

Module 3 LO5

Factors Affecting Skin Color

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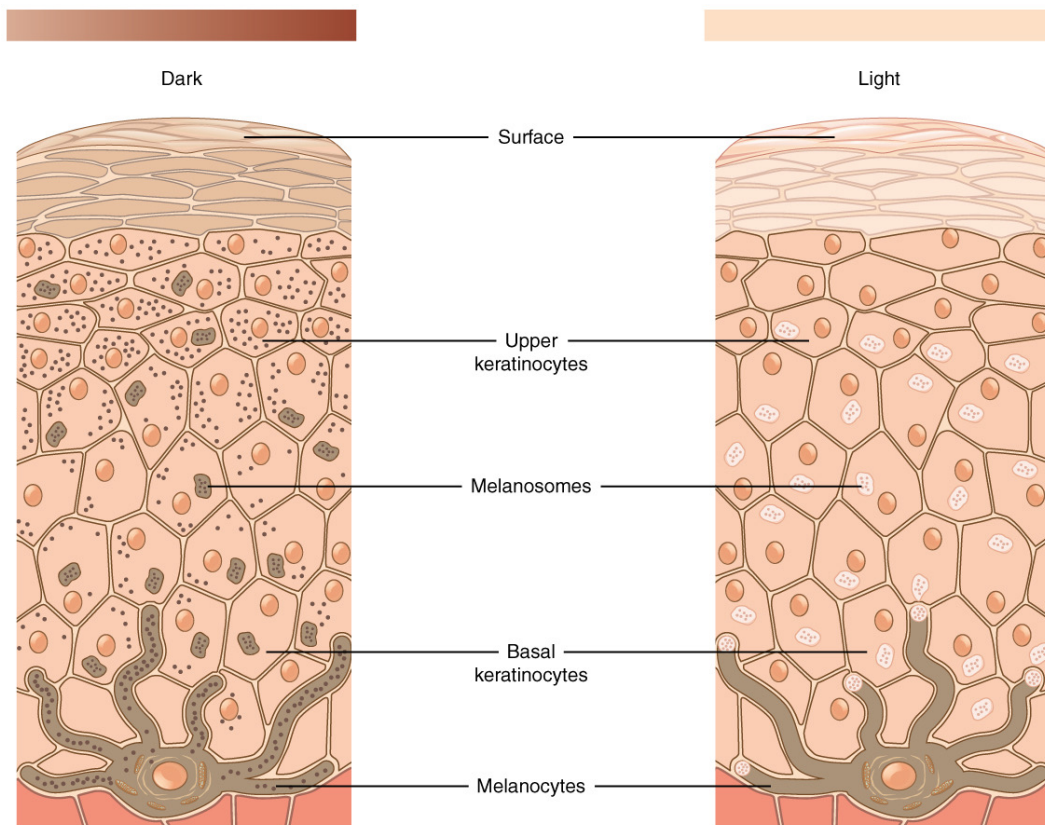
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5. Structural Basis of Skin Color

- Variations in skin color arise from variations in the amounts of three pigments:
 - A. Melanin
 - B. Carotene
 - C. Hemoglobin

A. Melanin

- Amount of melanin causes the skin's color to vary from pale yellow to red to tan to black
- Number of melanocytes - about the same in all people



Color Variations

Freckles



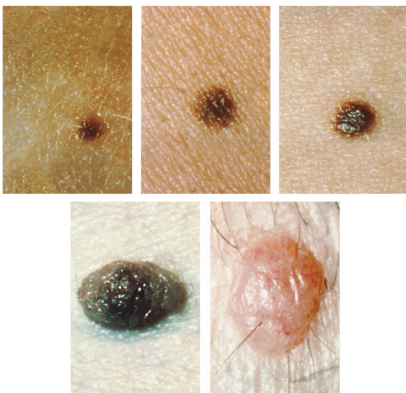
Blackheads



Liver Spots



Moles



Mask of Pregnancy



Genetic, Autoimmune or Environmental Factors

Albinism



Vitiligo



B. Carotene

- Yellow-orange pigment
- Precursor of vitamin A
 - Used to synthesize pigments needed for vision
- Stored in:
 - Stratum corneum
 - Fatty areas of dermis and hypodermis



C. Hemoglobin

- Defined as:
 - Oxygen-carrying pigment in red blood cells
- Dark-skinned individuals
 - Yellow to reddish-brown to black
- Light-skinned individual
 - Pink to red

