

Normal Skin Color Determinants

- ┌ Melanin
 - ┌ Yellow, brown or black pigments
- ┌ Carotene
 - ┌ Orange-yellow pigment from some vegetables
- ┌ Hemoglobin
 - ┌ Red coloring from blood cells in dermis capillaries
 - ┌ Oxygen content determines the extent of red coloring

Skin color is controlled by:

Genetic Factors

- varying amounts of melanin
- varying size of melanin granules
- albinos lack melanin

Physiological Factors

- dilation of dermal blood vessels
- constriction of dermal blood vessels
- carotene
- jaundice

Environmental Factors

- sunlight
- UV light from sunlamps
- X rays

Emotional stimuli can influence skin color and signify an illness:

Redness or erythema- may appear if a person is embarrassed, has a fever, hypertension, inflammation or an allergy.

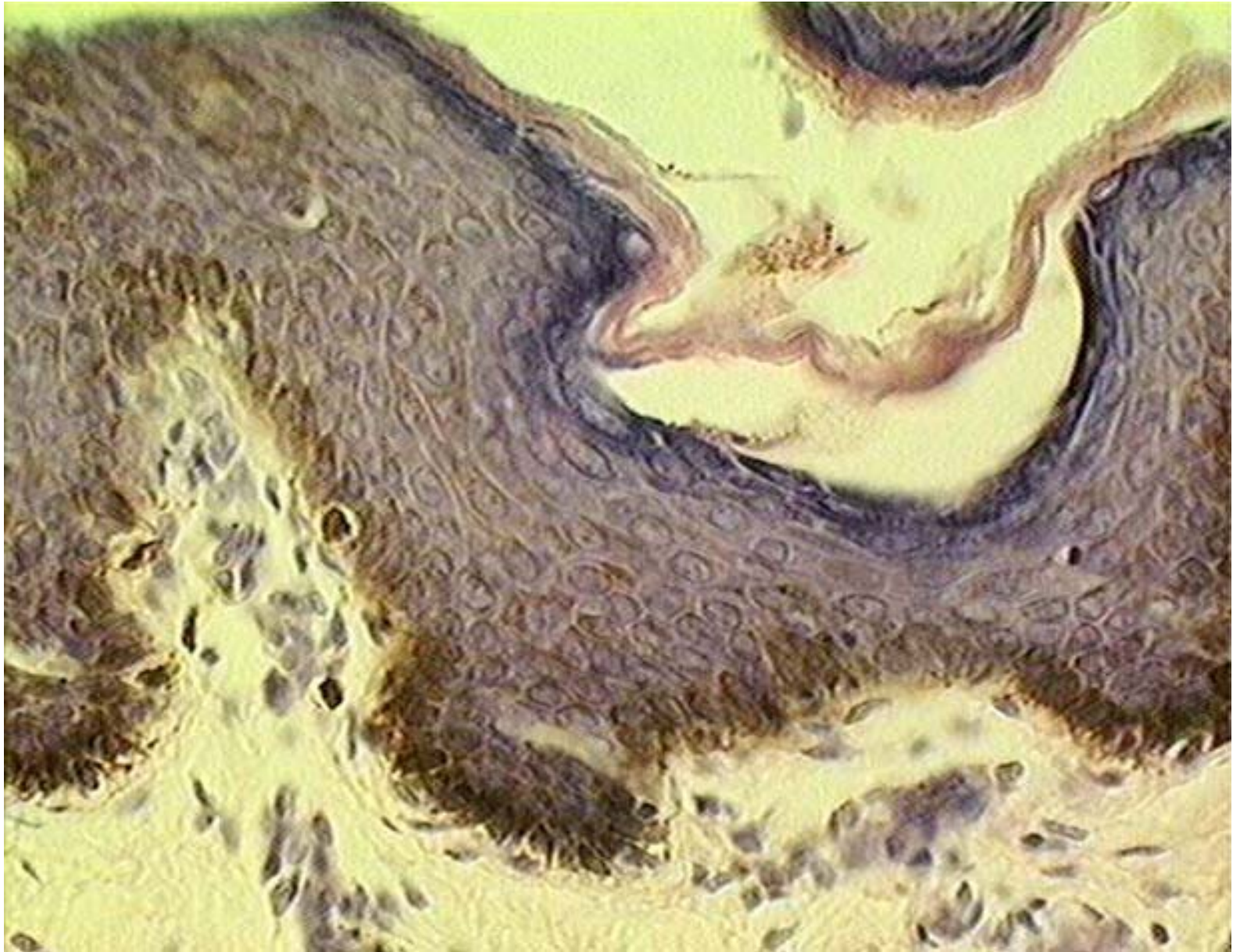
Pallor or blanching- (fear or anger) skin becomes pale, may be a sign of anemia, hypotension, or impaired blood flow to a certain area.

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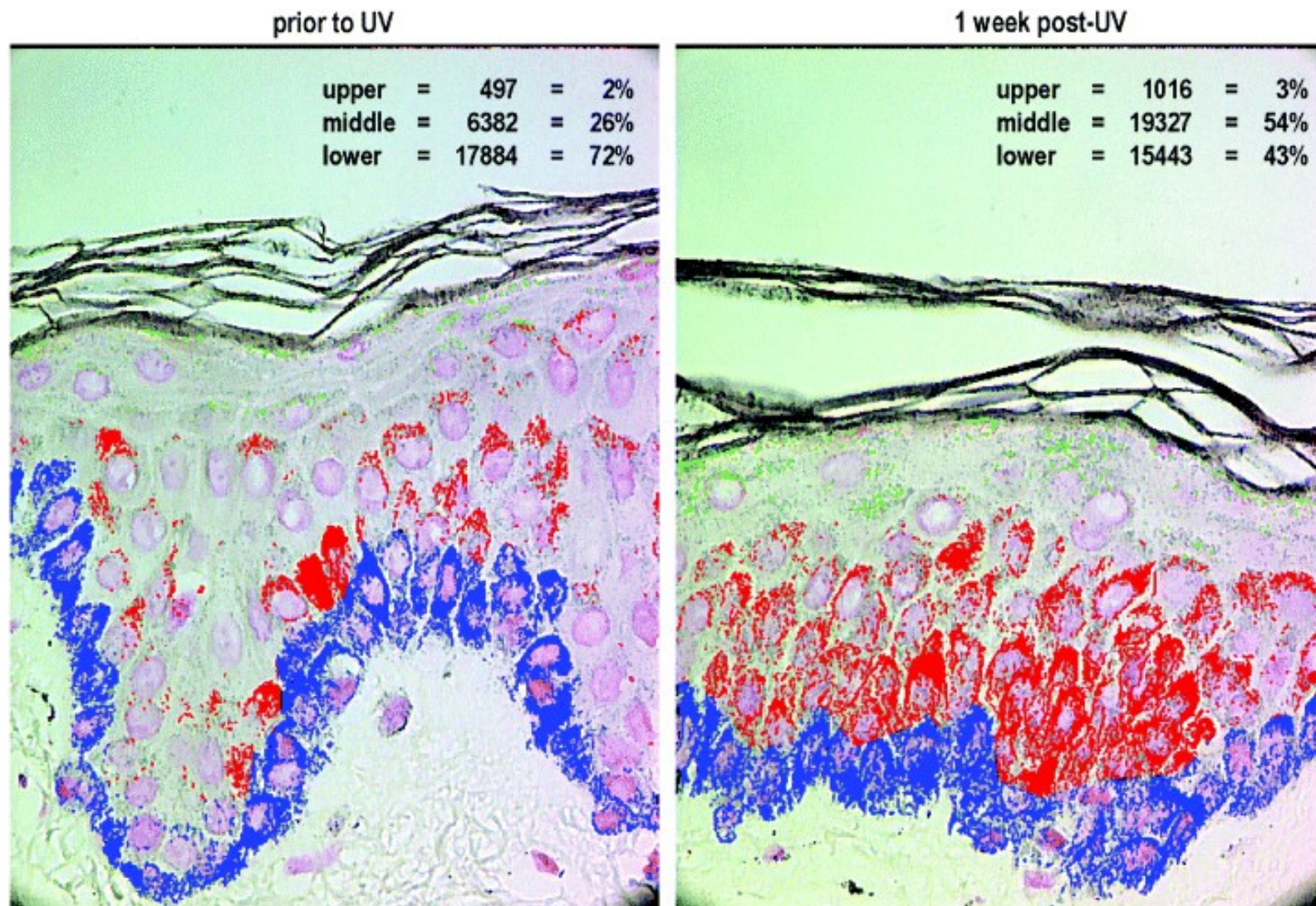
Jaundice- yellow cast usually signals a liver disorder in which excess bile pigments are absorbed in the blood, circulated in the body and deposited in the body tissues.

Bruises or black-and-blue marks- sites where blood has escaped the circulatory system and clotted in tissue spaces (called hematomas). May signify a deficiency of vitamin C or hemophilia.

Dark Skin



Effect of UV light on melanin production



Albinism- genetic factor



Jaundice- physiological factor

