

**#302 C IECT Practical Facial- Rubin Scale & Melanin
Vocabulary List & Facts**

1. Chloasma — increased pigmentation. Fact: Also referred to as mask of pregnancy, or melasma. Benefit: Tan or dark skin discoloration.
2. Lentigines — freckles, small yellow-brown spots. Fact: Also called liver spots. Benefit: Increases with age, common with older population.
3. Melasma — term for hyper-pigmentation; pregnancy mask. Fact: Also referred to as chloasma. Benefit: Typically found on the face.
4. Nevus — birthmark or mole; malformation of skin from abnormal pigmentation. Fact: Latin for birthmark. Benefit: Commonly found in the eye.
5. Stain — brown or wine-colored discoloration often occurring after certain diseases disappears. Fact: Vascular type of nevus. Benefit: Can be from moles or freckles when gone.
6. Tan — change in pigmentation due to melanin production defense against UV rays. Fact: People who use a tanning bed before 35 years of age, increase their risk of melanoma by 75 percent. Benefit: Too much tanning can lead to wrinkles, hyperpigmentation, and cancer.
7. Solar Comedones - Large blackheads, usually around the eyes, due to sun exposure Fact: Common in middle aged to older people. Benefit: Do not typically show any inflammation.
8. Sun Damage - UV damage to the epidermis and dermis; primary effects are wrinkles, collagen and elastin breakdown, pigmentation, and cancer Fact: Your skin can go from sunburn to wrinkles to cancer. Benefit: UV rays are 80 percent of your aging factors.
9. Melanocyte - a cell that produces pigment granules/melanin in the basal layer of the epidermis Fact: Found in the basal layer of the epidermis. Benefit: Derived from neural crest.
10. Melanogenesis - the process of making the pigment melanin inside the melanocyte Fact: Purpose is to protect the hypodermis. Benefit: Exposure to UV-B radiation causes increased melanogenesis.

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11. Thymidine dinucleotide - fragments produced by damaged DNA, triggering the release of MSH, which can then bind to melanocytes to produce melanin. Fact: Prevents basal cell carcinoma. Benefit: Reduces development of squamous cell carcinoma.
12. Chloroplast - plastid containing chlorophyll and other pigments Fact: Main role is to conduct photosynthesis. Benefit: Captures the energy from sunlight and converts and store it.
13. Tyrosine Protein – amino acid that creates melanin Fact: Tyrosine is form greek tyros. Benefit: Used by cells to synthesize proteins.
14. Protein tyrosine kinase (PTK) activity - the action of a complex enzyme that catalyzes the phosphorylation of tyrosine residues Fact: Divided into two classes, receptor and non receptor. Benefit: Frequently products of proto oncogenes.
15. Melanin - polymer Fact: Occurs in hair, skin, and iris. Benefit: Responsible for tanning of skin exposed to sunlight.
16. Eumelanin – dark pigmentation melanin Fact: Most common type of melanin. Benefit: People have brown or black eumelanin.
17. Pheomelanin – light pigmentation of melanin Fact: Has a pinkish or red tone. Benefit: Main pigment found in redheads.
18. Quinone – class of organic compounds Fact: Are formed by oxidizing aniline or hydroquinone. Benefit: Can be reduced by cellular reductases.
19. Dihydroxyindole – a brown black polymer Fact: One of the most abundant units. Benefit: A melanin precursor showing potent cytotoxicity.
20. Carboxylic Acid – an organic acid: example acetic acid Fact: Is an organic acid. Benefit: Some examples would be methanoic and ethanoic.
21. Dopachrome – product of L-Dopa and is in the biosynthesis of melanin Fact: Cyclization product. Benefit: Intermediate in the biosynthesis of melanin.

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22. Leucodopachrome – organic compound Fact: Occurs during a cyclization. Benefit: Participates in redox exchange with dopaquinone.
23. Tyrosinase – an enzyme in tissues that cause production of melanin Fact: Contains copper. Benefit: Present in plant and animal tissues.
24. DOPA - Fact: Present in nervous tissue. Benefit: Can be used in the treatment of Parkinson's disease.
25. Dopaquinone - Fact: Precursor of melanin. Benefit: Is a fundamental step in the biosynthesis of eumelanin.
26. Cysteine - Fact: Is an amino acid. Benefit: Can be synthesized by the body or consumed in certain foods.
27. S-Cysteinyldopa - Fact: Used for the diagnosis of melanoma. Benefit: Can be linked to malignant melanoma.
28. Benzothiazine - Fact: Heterocyclic compound. Benefit: Is applied to 2H- and 4H-isomers of molecules.
1. Albinism — absence of melanin in body. Fact: Rare skin disorder. Benefit: Complete or partial absense of pigment in skin, hair, and eyes.
2. Hypopigmentation — lack of pigment. Fact: Loss of skin color. Benefit: Caused by melanocyte or melanin depletion.
3. Leukoderma — light abnormal patches caused by congenital disease that destroys pigment- producing cells. Fact: Also referred to as vitiligo. Benefit: Causes white patches on the skin.
4. Vitiligo — white spots/areas on skin from lack of pigment cells.

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Fact: White areas from lack of pigment

Benefit: Causes white patches on the skin.

