



Skin



Functions of Skin

1. **Protection**: dehydration, bacteria, abrasions
2. **Regulates body temperature**: sweat evaporates off the skin to cool the body and blood vessels within the skin dilate
3. **Detects outside environment**: sensory receptors detect stimuli
4. **Provides a blood reservoir**: blood contained within vessels of the skin can be shunted to areas in need
5. **Produces Vitamin D**: limited exposure to sunlight aids in the production of vitamin D needed for calcium absorption

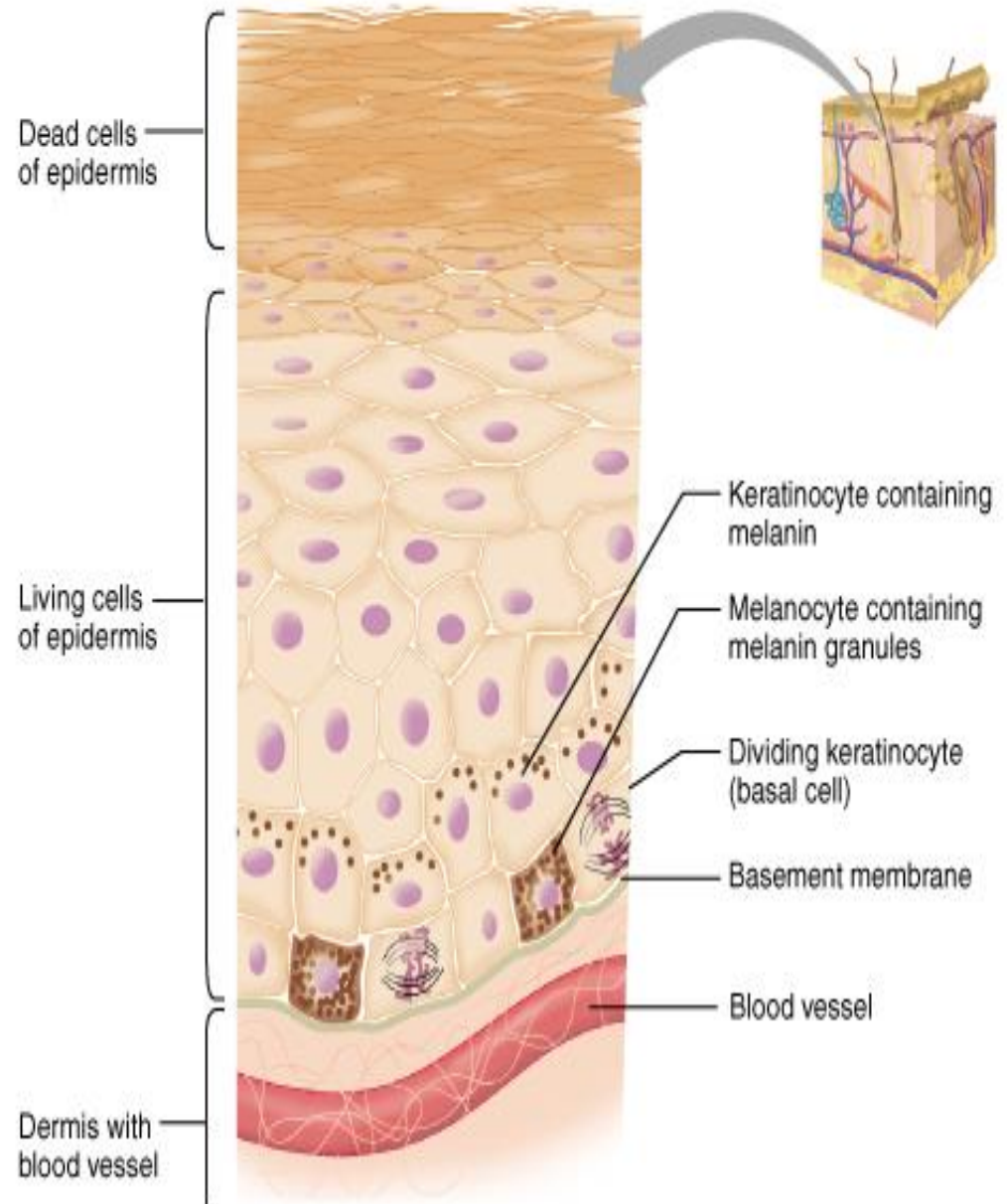
Skin Structure: Epidermis

Characteristics

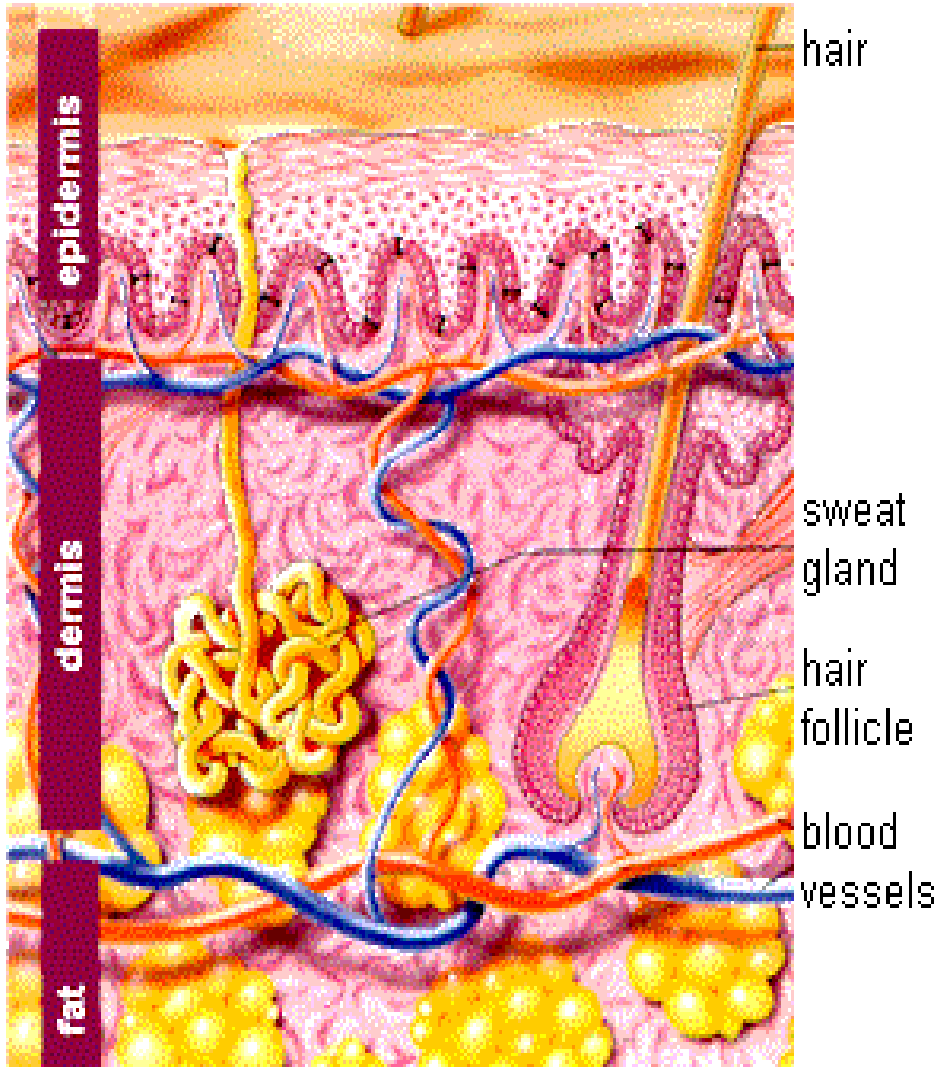
- Stratified Squamous Epithelium
- High regeneration rate
- Avascular

Cells

- Keratinocytes: produce keratin for water-proof protection
- Melanocytes: produce melanin for UV protection



Skin Structure: Dermis



Characteristics

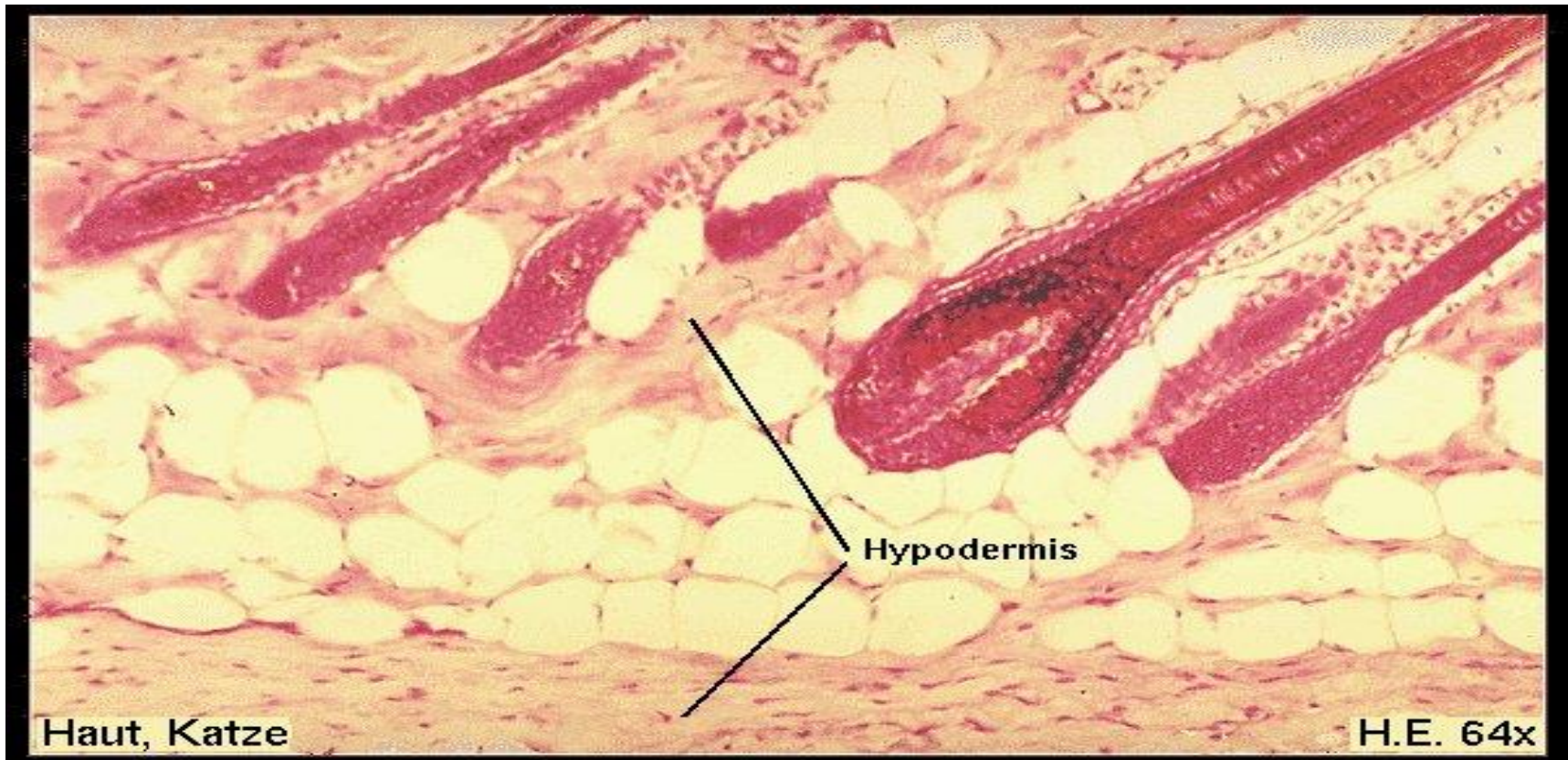
- Composed of dense connective tissue
- Contains BV, lymph vessels, and sensory receptors
- Location of sweat glands, oil glands, and hair follicles

Skin Structure: Hypodermis

Functions

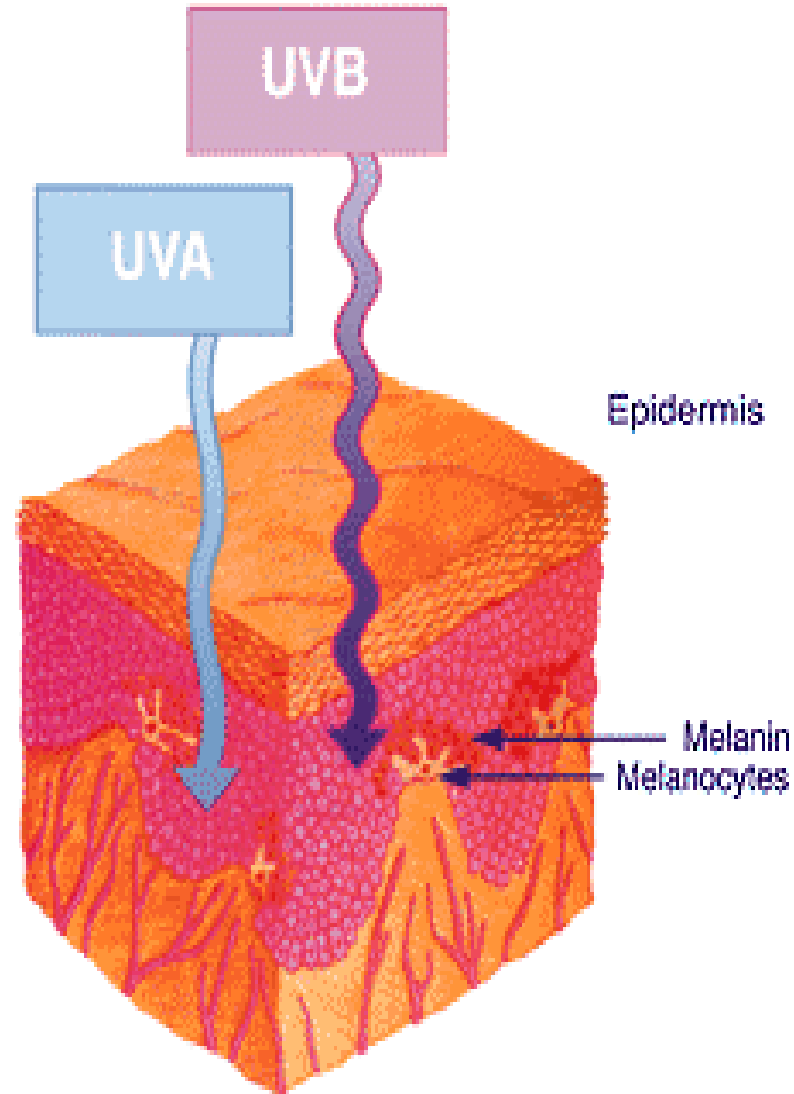
1. Insulate: Adipose Tissue

2. Anchor skin: Loose areolar Connective Tissue



Effects of Ultra Violet Radiation

1. Skin becomes tan: causes your melanocytes to produce more melanin the “shade” skin cells
2. Skin becomes leathery: loss of skin elasticity due to clumping of elastin fibers
3. Increased risk of skin cancer: alters DNA causing continuous cell division creating a tumor
4. Suppresses the immune system: increasing your risk of infection/reoccurrence



The future of skin

- <https://www.youtube.com/watch?v=lpFwQ2CCMys&feature=youtu.be>