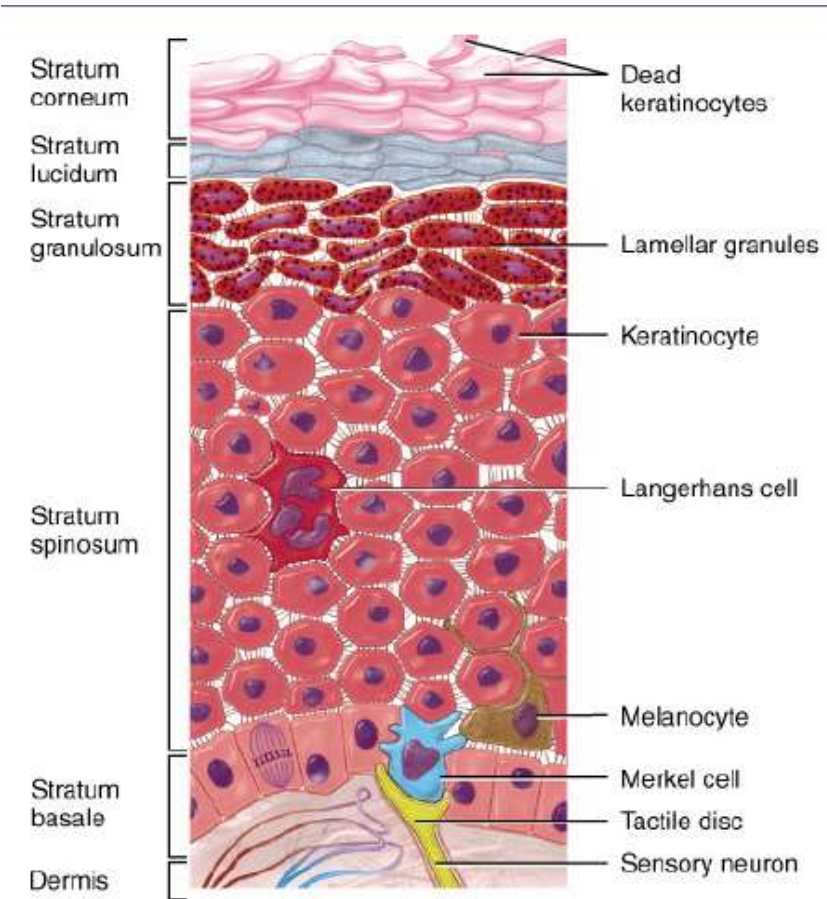


# Integumentary System

## Part 2

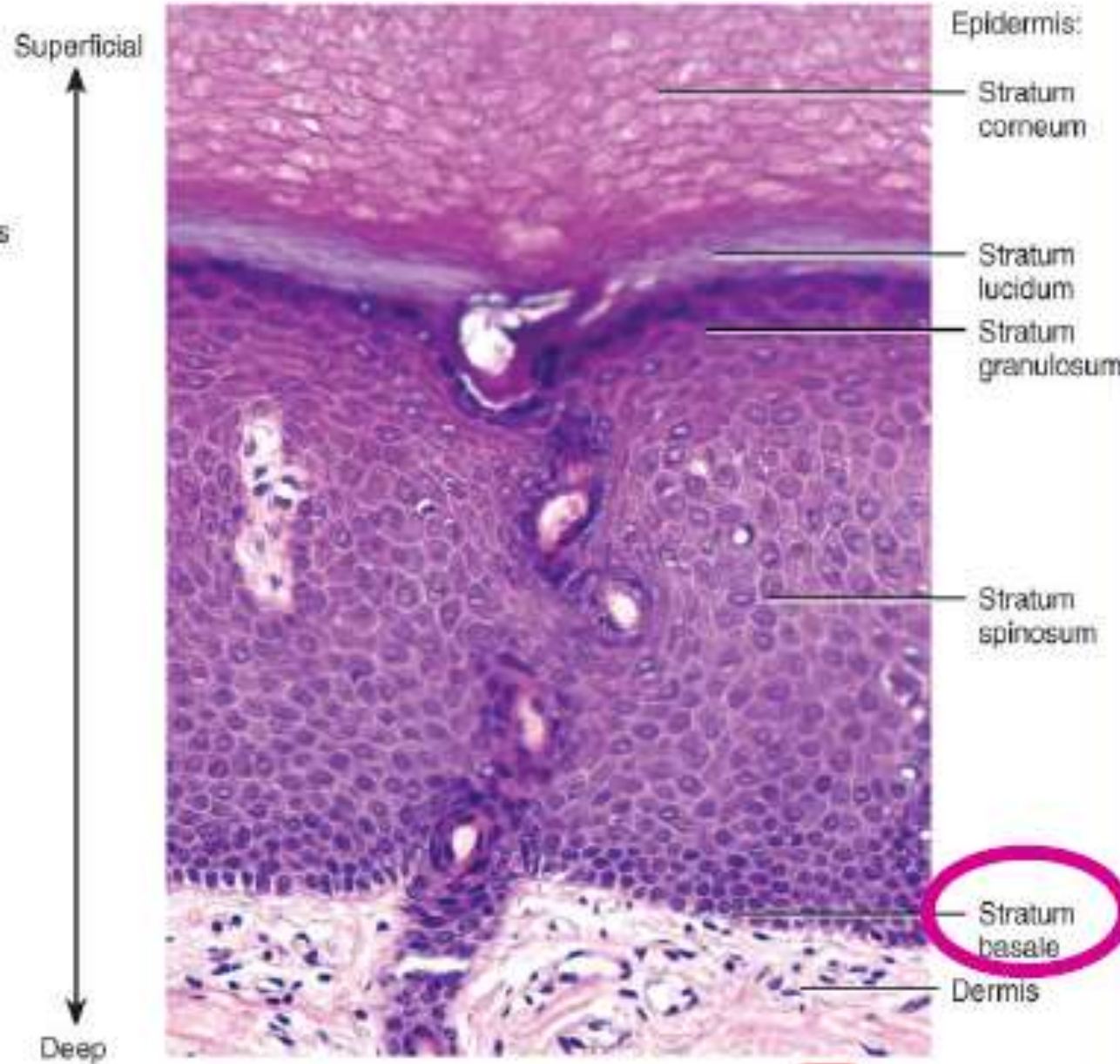
EQ: Why are there 5 layers to the epidermis?

# I. Layers of the Epidermis



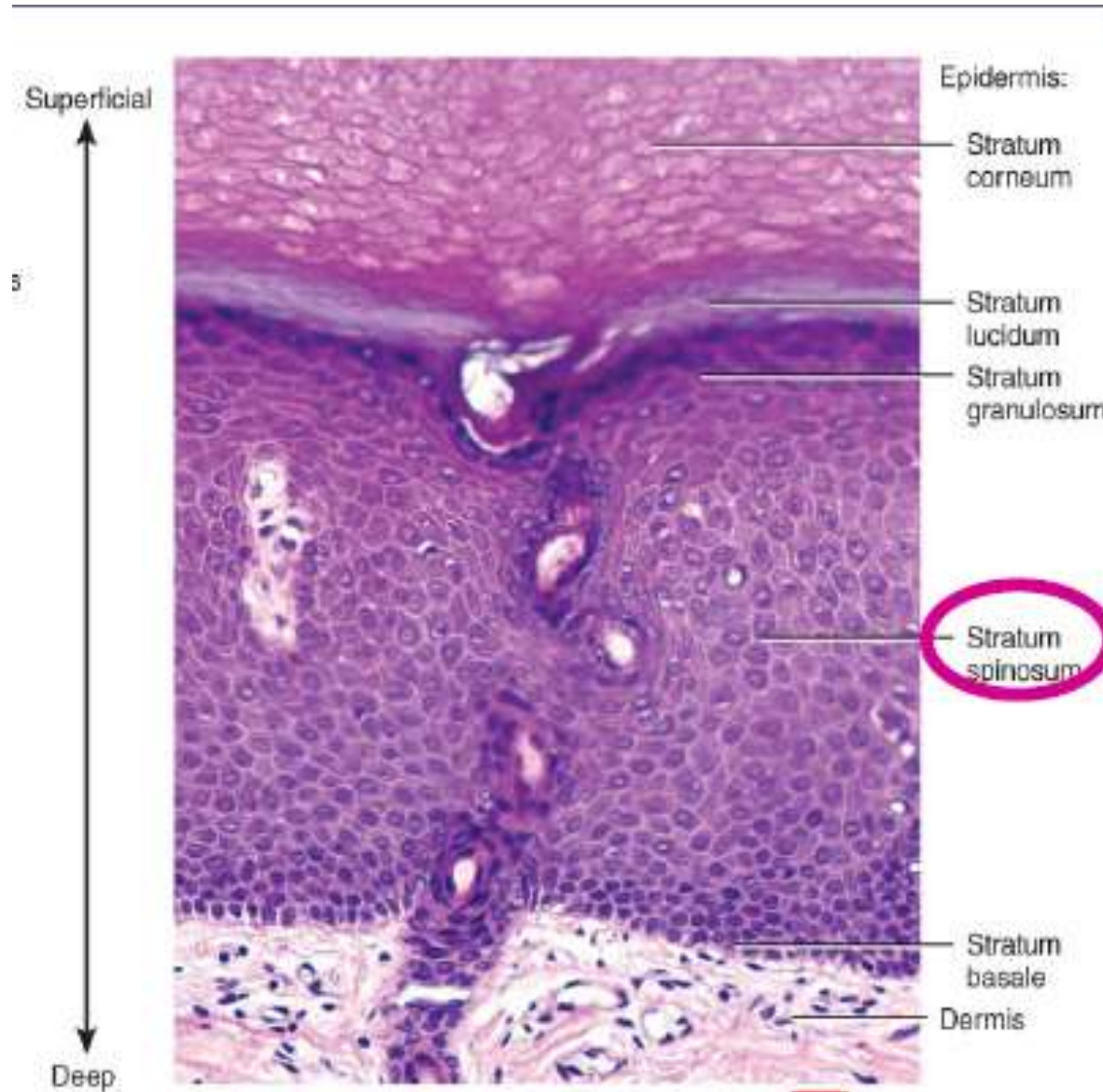
- a. From inside out:
- i. **Stratum basale** (also called Stratum germinativum)
  - ii. **Stratum spinosum**
  - iii. **Stratum granulosum**
  - iv. **Stratum lucidum** (only in palms & soles)
  - v. **Stratum corneum**

# i. Stratum Basale



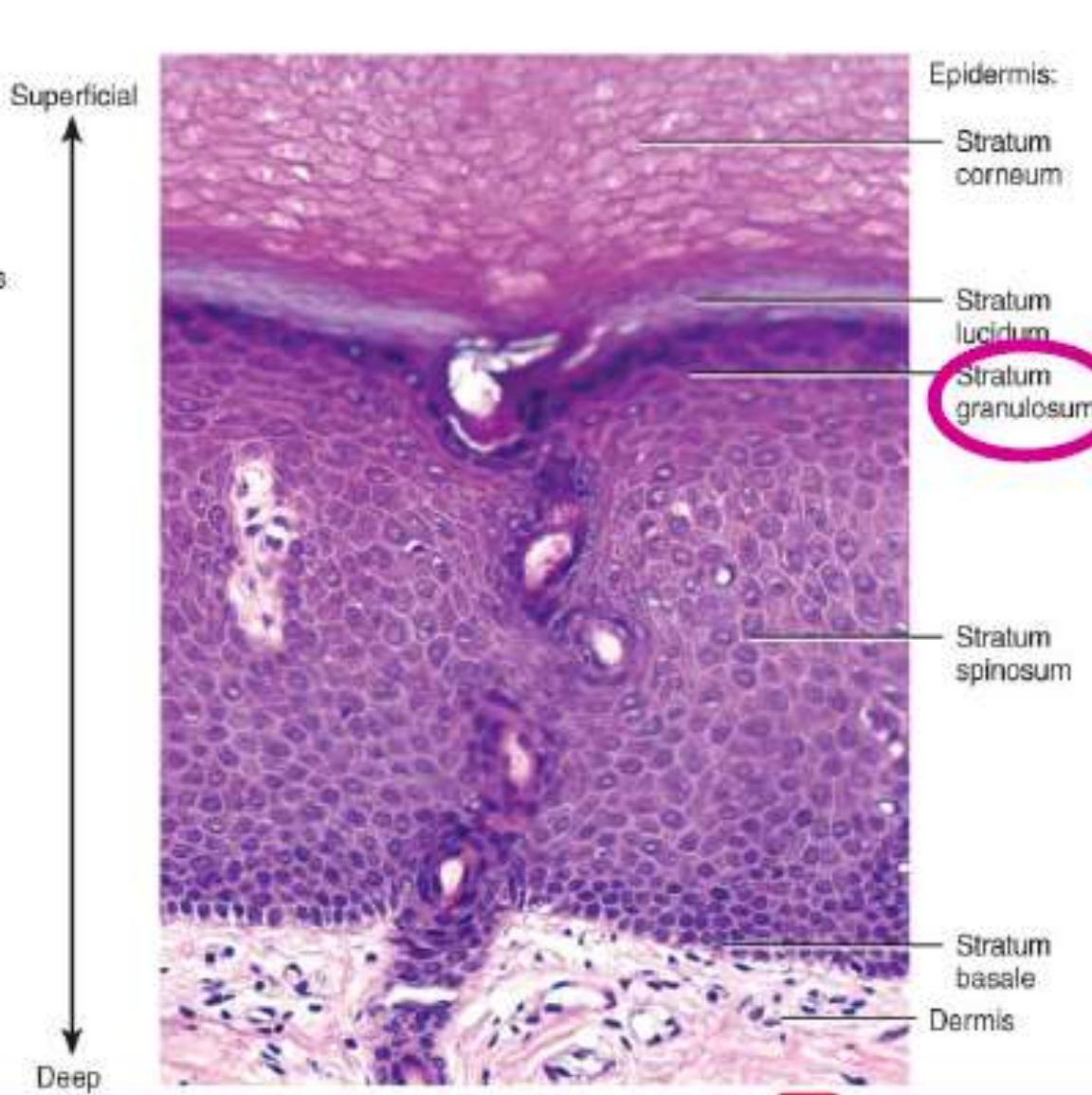
1. Deepest layer connected to the dermis
2. They are alive and constantly dividing
3. Melanocytes found here producing melanin to protect the DNA below from UV light.

## ii. Stratum spinosum



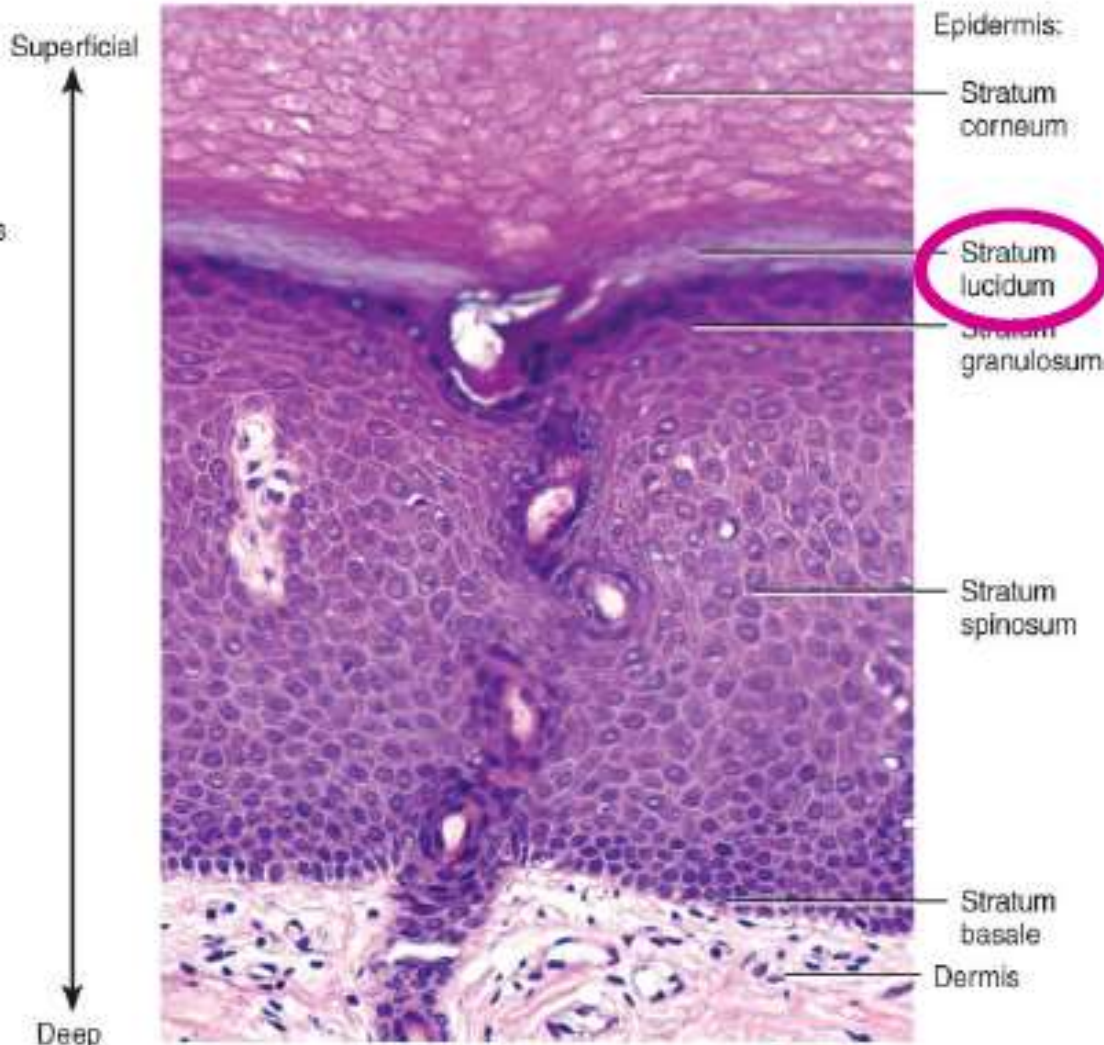
1. About 8 to 10 cell layers thick
2. More keratin accumulates
3. Provides strength to the skin

### iii. Stratum Granulosum



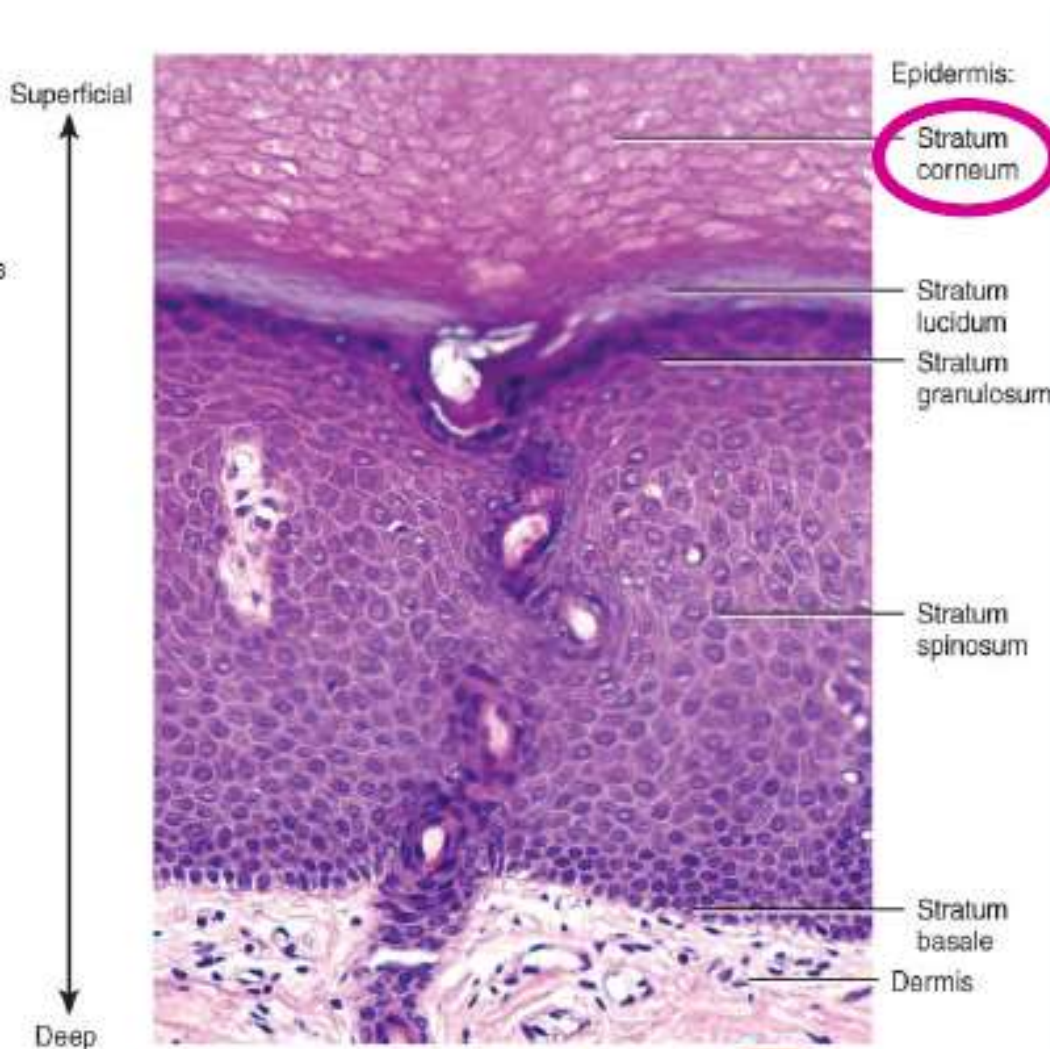
1. 3-5 layers of flat dying cells
2. Much more keratin here

# iv. Stratum Lucidum



1. Found only on the palms of the hands and soles of the feet
2. Dead due to lack of oxygen
3. Found where the skin is hairless
4. Around 3-5 layers and appears clear under the microscope

# v. Stratum Corneum



1. 20-30 cell layers thick
2. All flat/dead cells filled w/keratin
3. We shed 40lbs of dead cells in a lifetime (18kg)