Integument System

The Cutaneous Membrane & Hypodermis

This model of the cutaneous membrane illustrate how skin differs in different regions of the body.

Section A shows the skin as it is over most of the surface of the body.

Section B shows the skin in the axilla, areola, anal, and in males the bearded area but only after male and female puberty.

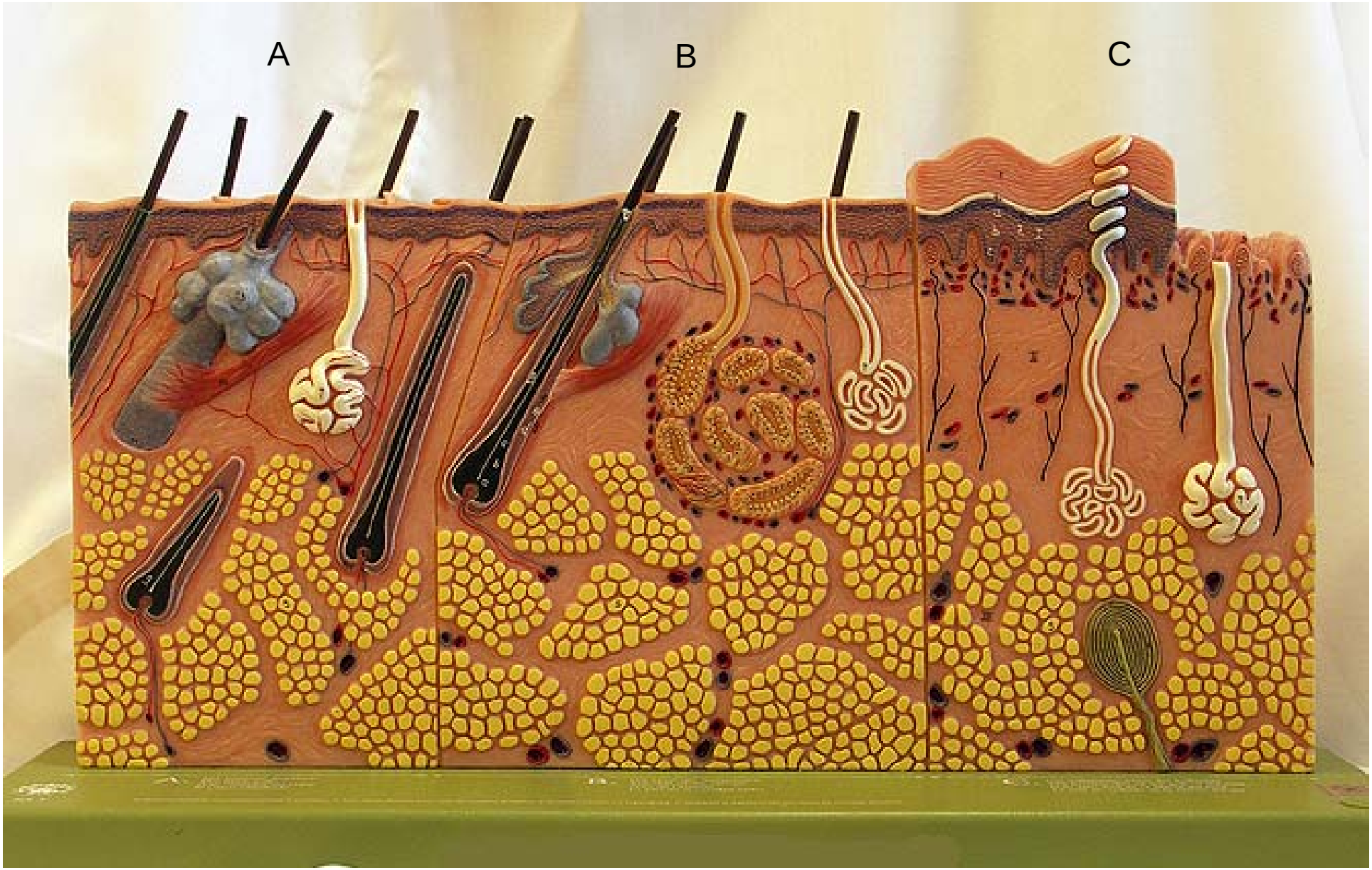
Section C shows the skin on the palmer and plantar surfaces which is referred to as the “thick skin”.

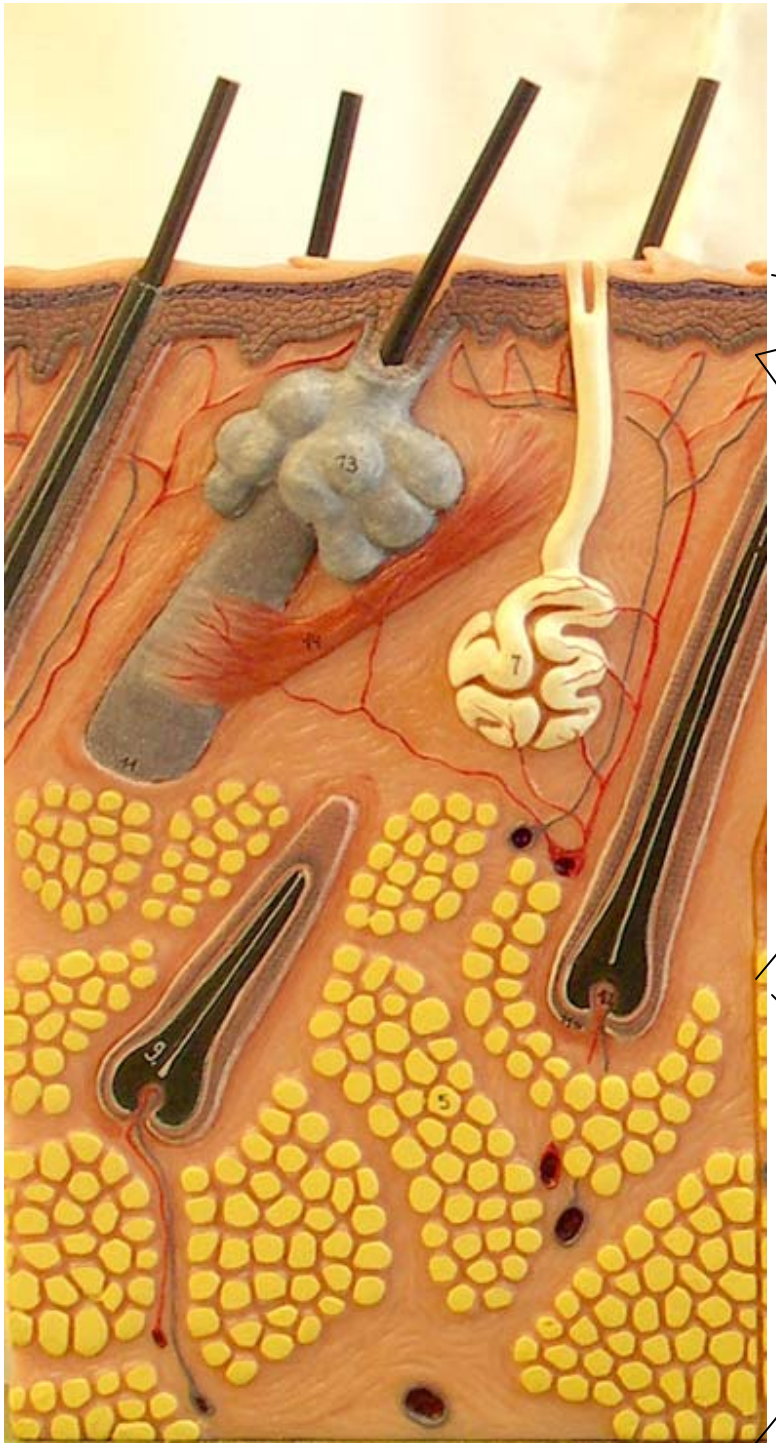
Examine these three sections and identify how the skin structure changes between the different regions. Use your text book to identify the following anatomy:

Arrector pili muscle / Dermal papilla / Epidermis / Hair / Hypodermis

(subcutaneous layer) / Sebaceous gland / Sudoriferous gland (sweat gland)

Where are the blood vessels located? Which layer does not have blood vessels?


A
B
C

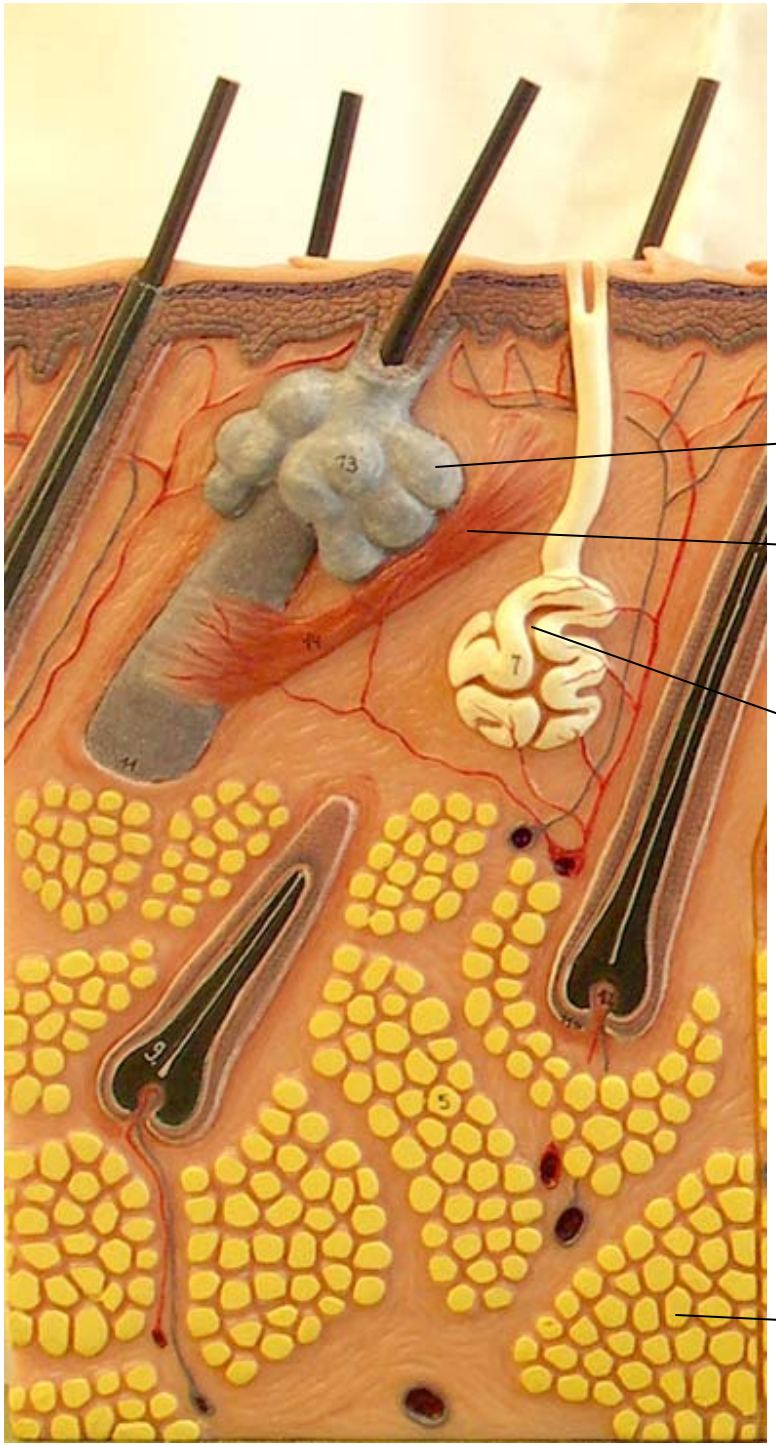


Section A

Epidermis

Dermis (your leather coat)

Hypodermis



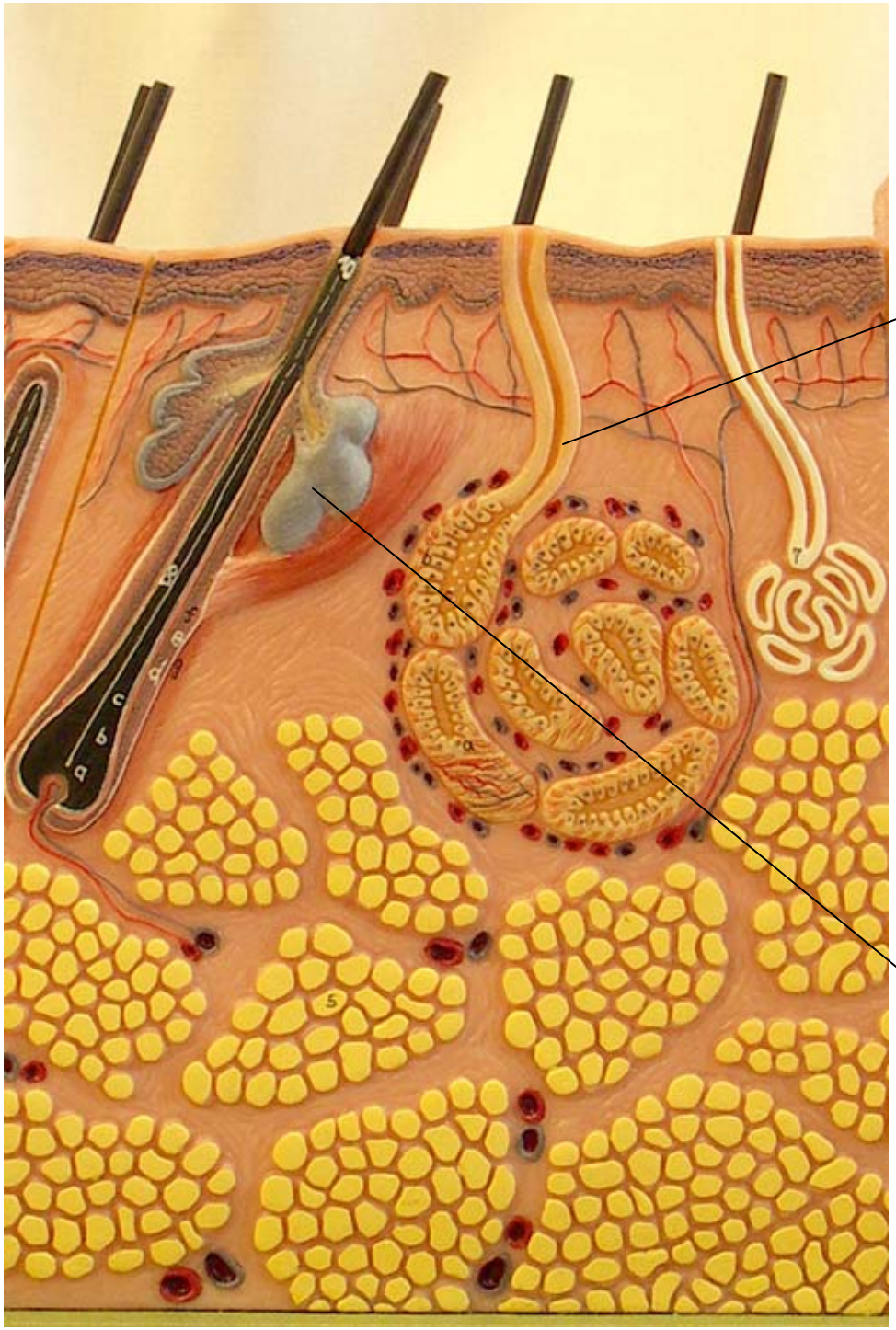
Section A

Sebaceous gland (oil / sebum)

Arrector Pili muscle

Sudoriferous gland (sweat gland)

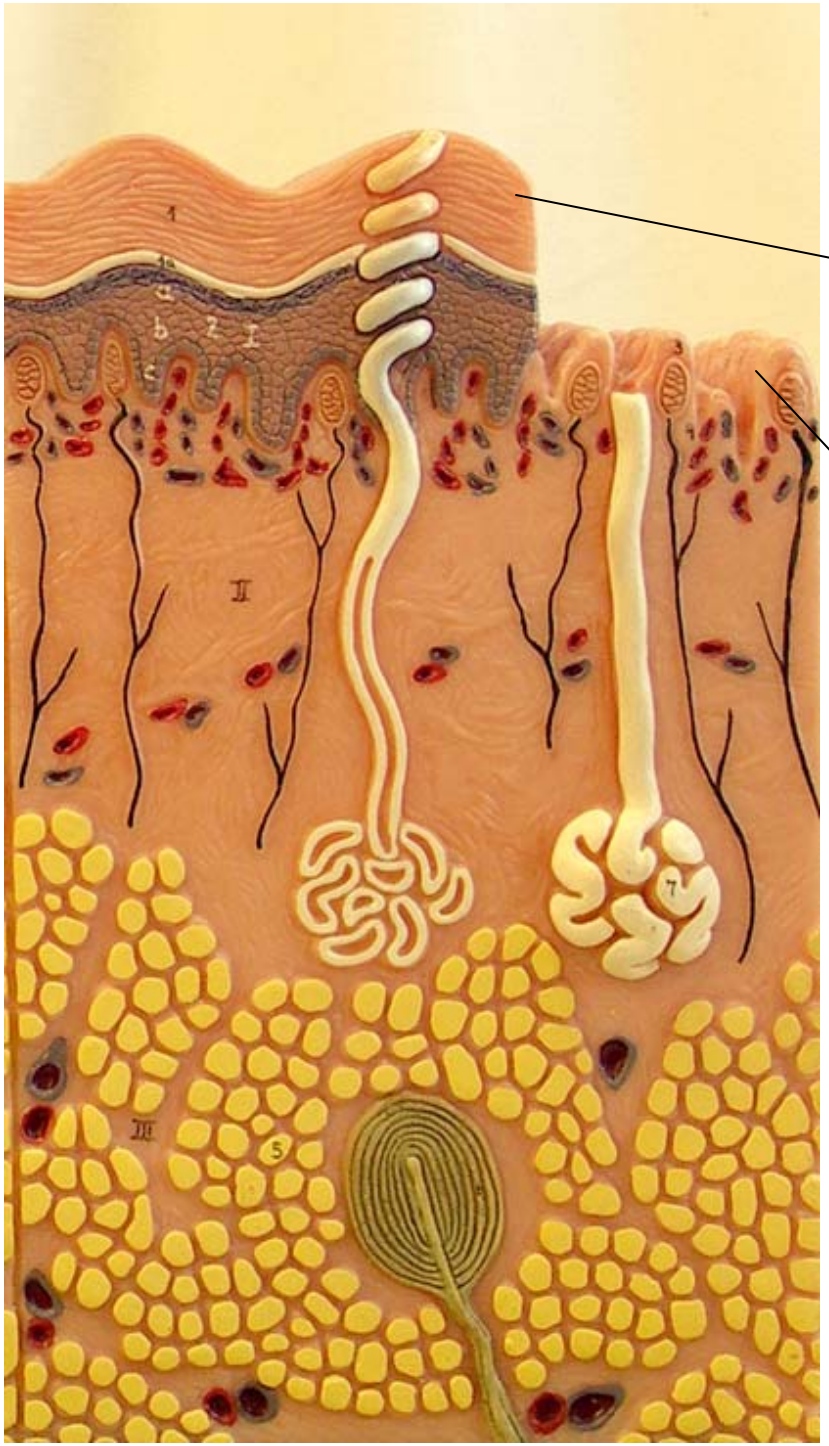
Adipose tissue containing stored triglycerides. (subcutaneous fat)



Section B

This is a special type of sweat gland. It does not become active until after puberty. Like a typical sweat gland, they are classified as merocrine glands and release there secretion by exocytosis. Their secretions contain fatty acids that are metabolized by bacteria and causes an unpleasant order. These glands are located in the axilla, areola, anal, pubic areas and in men also on the bearded area of the face.

The sebaceous gland release their sections when the cells break apart. This is referred to as a holocrine gland.



Section C

Note that the epidermis is thicker in this section and the stratum corneum is extremely thick in this layer.

Dermal papilla. These structures are responsible for the “friction ridges” on your finger tips which are commonly called your “finger prints”.