

Topic: Integumentary System

Name:

Date:

What are the 4 main functions of the integumentary system?

1. Protection
 - keeps germs from getting into your body
 - nose hairs, eyelashes, etc. keep germs out
 - keeps insides inside
 - pH → kill bacteria (some)
 - melanin protects from UV rays
2. Body Temperature Regulation
 - sweat cools down body
 - hair helps keep you warm
3. Excretion
 - sweat: urea and salt / toxins
4. Information gathering
 - sense of touch: pressure, pain, texture
5. Vitamin D production
 - made from sun light
 - helps body absorb Calcium and Phosphorus

What are the structures of the integumentary system?

1. Epidermis
 - Outer layer of your skin
 - cells divide quickly (mitosis)
 - die quickly (apoptosis)
 - contains pigment (melanin)
2. Dermis
 - middle layer
 - keeps body temp stable (homeostasis)
 - cold = blood vessels get narrow
 - hot = " " " wider
 - sweat glands produce sweat

★ Sebum (sebacaceous gland) - keeps epidermis flexible and waterproof

What are some problems that affect the skin?

3. Hair and Nails - made of Keratin
nails protect finger tips and toes
- hair keeps body warm
* 80% body heat is lost through your head

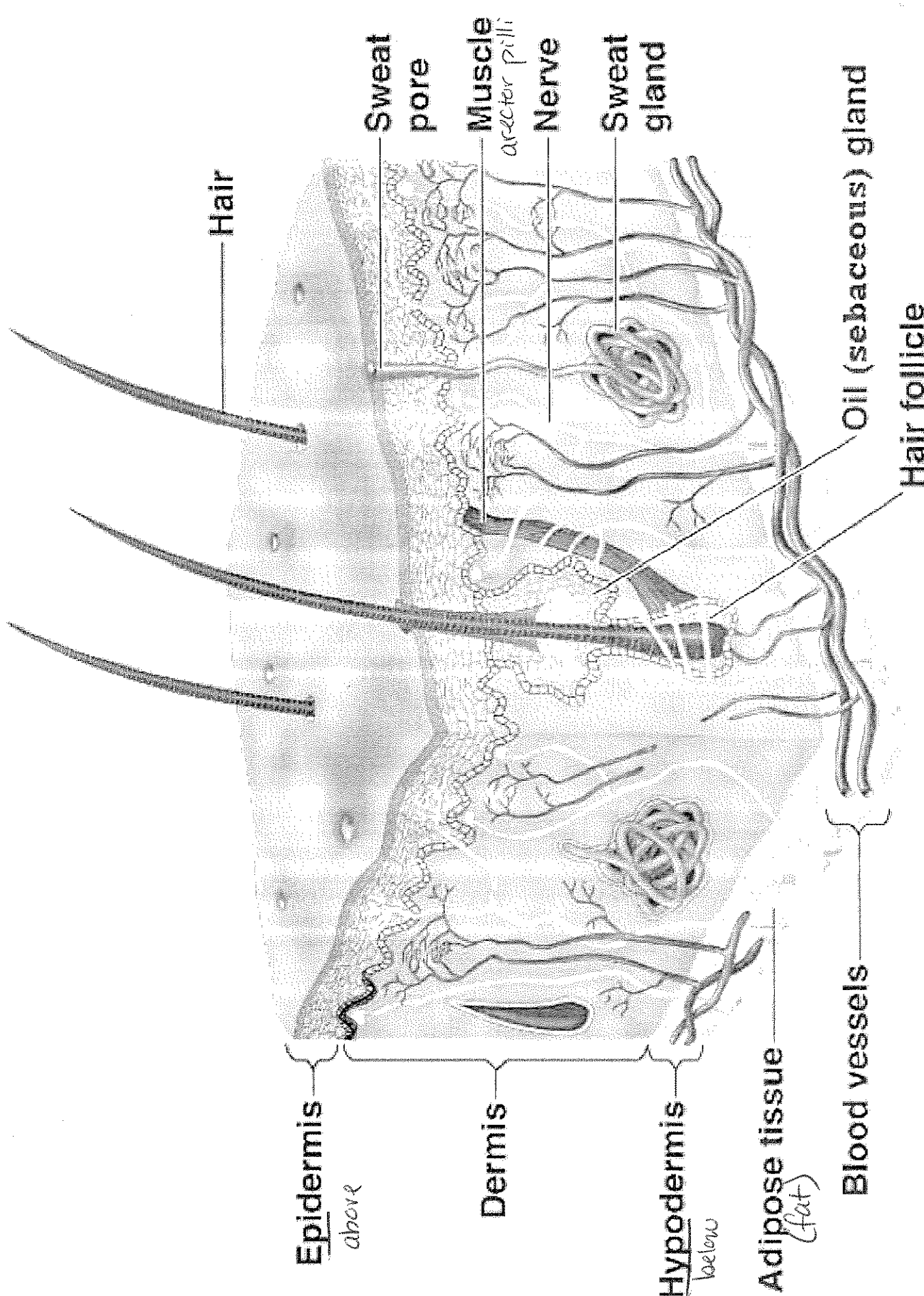
- eyelashes protect eyes, eyebrows too
nose hair, ear hair keeping germs out

1. Acne - Sebum and dead cells plug hair follicle
↳ bacteria multiply and infect skin
↳ acne
* honey kills bacteria

2. Hives - histamine is released (during allergies)
↳ blood vessels get big
↳ fluid coozes from vessels to skin
↓
hives develop

3. Skin Cancer - excessive tanning, sun too long
- Melanoma - worst form
* wear sunglasses
* sunscreen - Titanium Dioxide reflect sun's rays
Zinc Oxide
oxytate - absorb rays

Reflection/Summary:



Hair

Sweat pore

Muscle
arrector pili

Nerve

Sweat gland

Oil (sebaceous) gland

Hair follicle

Epidermis
above

Dermis

Hypodermis
below

Adipose tissue
(fat)

Blood vessels