

## Do Now Unit 5 Integumentary system

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- Which of the following is an example of an accessory structure of the dermis?
    - hair follicles
    - sweat glands
    - sebaceous glands
    - nerve cell processes
    - all of the above**

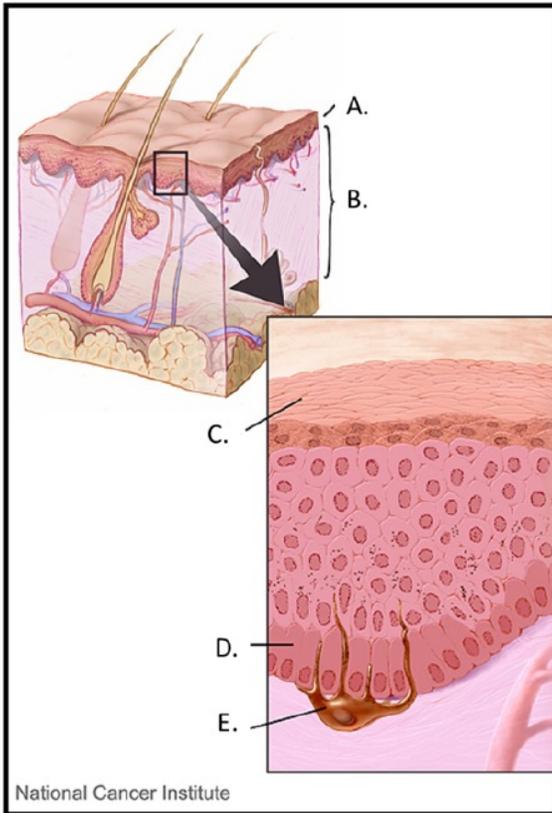
Base your answers to questions 2 through 8 on the choices below.

    - stratum corneum
    - stratum lucidum
    - stratum granulosum
    - stratum spinosum
    - stratum basale
  - Which layer of the epidermis is deep to the stratum lucidum and superficial to the stratum spinosum?
  - The cells of which layer divide and push older cells toward the skin surface?
  - Which of the above forms the outermost layer of the epidermis?
  - Which layer of the epidermis is deep to the stratum spinosum?
  - Which of the above layers is found in the thickened and hairless regions of the palms and soles, and may be missing in other areas where the epidermis is thin?
  - Which layer of the epidermis is nourished by dermal blood vessels?
  - Which layer of the epidermis is comprised of many layers of tough, tightly packed dead cells?
  - Which of the following correctly orders the layers of the epidermis?
    - stratum basale, stratum corneum, stratum lucidum, stratum granulosum, stratum spinosum
    - stratum spinosum, stratum basale, stratum lucidum, stratum granulosum, stratum corneum
    - stratum granulosum, stratum lucidum, stratum spinosum, stratum corneum, stratum basale
    - stratum corneum, stratum lucidum, stratum granulosum, stratum spinosum, stratum basale**
    - stratum basale, stratum lucidum, stratum corneum, stratum spinosum, stratum granulosum
  - Which of the following is true about the hypodermis?
    - it is not a true layer of skin**
    - a sharp boundary separates the dermis and hypodermis
    - it is attached to the epidermis by the basement membrane
    - all of the above
    - only two of the above are true
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11. Explain how the skin helps regulate the body temperature if:

- A. The temperature rises above the set point (must explain 2 of the changes that occur in the integumentary system) –
- B. The temperature drops below the set point (must explain 2 of the changes that occur in the integumentary system) –

Base your answers to questions **12** through **16** on the diagram and choices below.



<https://visualsonline.cancer.gov/details.cfm?imageid=4366>

- 12. In the diagram above, letter \_\_\_\_\_ is labeling the epidermis.
- 13. In the diagram above, which letter is pointing to basal cells?
- 14. In the diagram above, letter \_\_\_\_\_ is labeling the dermis.
- 15. In the diagram above, which letter is pointing to squamous cells?
- 16. In the diagram above, letter \_\_\_\_\_ is labeling a melanocyte.

17. The farther the epidermal cells move from the dermis;

- A) the more cube-shaped they are
  - B) the poorer their nutrient supply becomes**
  - C) the younger they are
  - D) the less keratin they have
  - E) all of the above
18. Which of the following correctly lists the layers of the skin from the deepest to the outermost?
- A) dermis, basement membrane, stratum basale, stratum corneum**
  - B) adipose, dermis, epidermis
  - C) basement membrane, dermis, epidermis
  - D) adipose, dermis, stratum corneum, stratum basale
  - E) epidermis, basement membrane, dermis
19. Which of the following structures are found within the dermis?
- A) Arrector pili muscles
  - B) Hair roots
  - C) Eccrine sweat glands
  - D) Sebaceous glands
  - E) All of the above**
20. Which cutaneous glands are associated with hair follicles?
- A) endocrine glands
  - B) sebaceous glands**
  - C) eccrine glands
  - D) apocrine glands
  - E) sudoriferous glands

21. Which sweat glands are the most numerous and respond throughout life to body temperatures?
- A) **eccrine glands**
  - B) apocrine glands
  - C) sudoriferous glands
  - D) sebaceous glands
  - E) mammary glands
22. Which of the following do sebaceous and sweat glands both have in common?
- A) they both secrete sebum
  - B) they are both associated with hair follicles
  - C) they are located throughout the body in equal proportions of each other
  - D) **they are both exocrine glands**
  - E) they are both apocrine glands
23. A bundle of smooth muscle cells called the \_\_\_\_\_ muscle, attaches to each hair follicle.
- A) dermal papillae
  - B) **arrector pili**
  - C) follicular
  - D) dermal
  - E) keratinized
24. Protective coverings on the ends of fingers and toes are known as;
- A) hair follicles
  - B) **nails**
  - C) glands
  - D) keratin beds
  - E) hardened epidermis
25. Given the skins superficial location, it is;
- A) the most vulnerable organ system
  - B) exposed to bacteria
  - C) the first line of defense of the immune system
  - D) important in regulating body temperature
  - E) **all of the above**
26. What is the regulation of body temperature also known as?
- A) homeostatic balance
  - B) endothermic
  - C) metabolic maintenance
  - D) cutaneous equilibrium
  - E) **thermoregulation**
27. Evaporation of sweat from the skin surface;
- A) causes dermal blood vessels to dilate
  - B) **dissipates body heat and efficiently cools the body**
  - C) traps body heat and efficiently warms the body
  - D) causes dermal blood vessels to constrict
  - E) causes arrector pili muscles to relax
28. The regulation of body temperature is of vital importance because;
- A) a constant temperature is important for the production of melanin
  - B) if temperature fluctuations are too great, sebaceous glands may become clogged
  - C) body temperature is directly related to hair growth
  - D) **slight shifts in temperature can disrupt the rates of metabolic reactions**
  - E) bacteria is unable to survive on the skin if a constant temperature is maintained
29. The function of melanin and therefore another function of the integumentary system is to;
- A) form a waterproof barrier to prevent excess water loss
  - B) prevent the entry of microorganisms and therefore to protect the body from disease
  - C) give skin its elasticity and therefore flexibility
  - D) **absorb ultraviolet radiation in the sun**
  - E) to provide the cells of the stratum basale layer with the nutrients they need
30. The skin plays a vital role in the production of \_\_\_\_\_, which is necessary for bone development
- A) melanin
  - B) **vitamin D**
  - C) calcium
  - D) magnesium
  - E) vitamin C