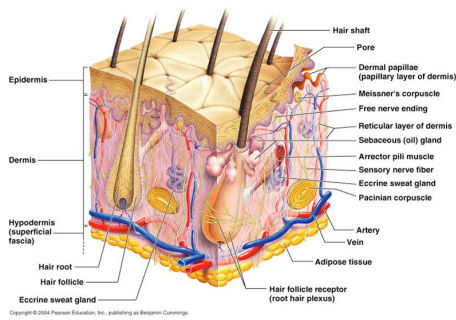


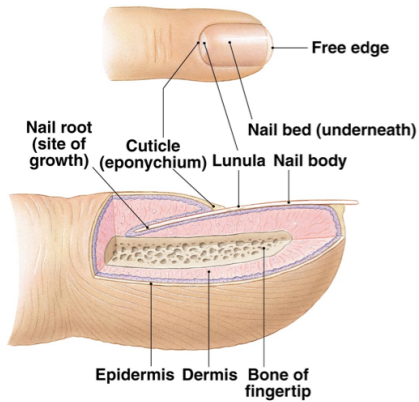
IS - Appendages and Imbalances

THE INTEGUMENTARY SYSTEM APPENDAGES & IMBALANCES



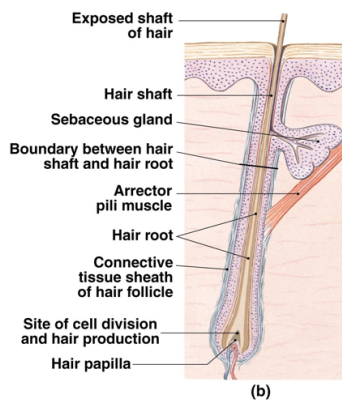
NAILS

- function
 - protective covering on the ends of fingers and toes
- structure
 - nail plate = nail covering skin
 - nail bed = skin under the nail
 - lunula = whitish, thickened, half-moon shaped region which covers the most actively growing area of nail
- Did you know...
 - thumb nail grows the slowest
 - middle finger grows the fastest



HAIR FOLLICLES

- hair covers the whole body EXCEPT for the palms of hands, soles of feet, lips, nipples, and some external reproductive organs
- hair = dead epidermal cells that originate in a hair follicle (dermis)
- arrector pili muscle = smooth muscle fibers attached to each hair
 - contraction causes hair to stand up = "goosebumps"
 - emotionally upset or cold



HAIR COLOR

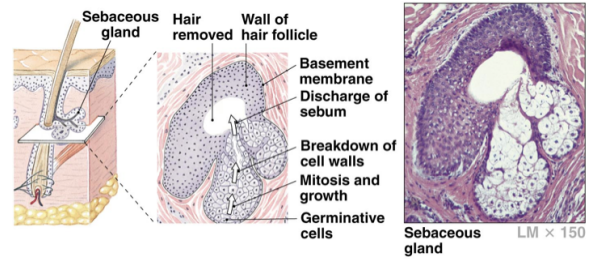
- determined by genes that direct the type and amount of pigment melanocytes produce
 - lots of melanin = dark
 - intermediate = blonde to brown
 - no pigment = white
 - trichosiderin = red
 - mix of pigment and no pigment = grey



IS - Appendages and Imbalances

SEBACEOUS GLANDS

- a.k.a. oil glands
- specialized epithelial cells associated with a hair follicle
- holocrine gland that secretes an oily mixture of fatty materials and cellular debris called sebum
- sebum helps keep hair soft, pliable, and waterproof
- acne can result from clogged sebaceous glands



SWEAT GLAND - ECCRINE

- a.k.a. sudoriferous glands
- found all over the body
- "sweat" to decrease body temperature
- "sweat" releases water
 - if you're thirsty, you've already lost enough water to compromise some body functions....DRINK WATER!!!!
- "sweat" releases salt, but not enough to lower salt levels in the body
- "sweat" also releases trace amounts of vitamin C which helps prevent bacterial growth on skin
 - HOW?...by making skin acidic

SWEAT GLANDS - APOCRINE

- located in armpit and groin
- secrete sweat + fatty acids
 - fatty acids = body odor (BO)
 - fatty acids attract bacteria that breakdown the fatty acids (byproduct of this metabolism makes you smell)
- Did you know...the average square inch of skin holds 650 sweat glands, 20 blood vessels, 60,000 melanocytes, and more than 1,000 nerve endings

WHAT IS A BURN?

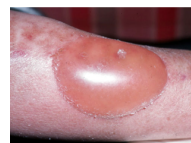
- burn = damage to skin or other body parts caused by extreme heat, flame, contact with heated objects, or chemicals
- categorized as first, second, or third degree
- treatment depends on depth, area, and location of burn
 - additional factors - materials burned into or onto skin

DEGREES OF SEVERITY

first degree
superficial burn
epidermis intact and
functioning properly



second degree
partial-thickness burn
damage extends into
dermis; most painful
blisters
w/o epidermis victims
begin to lose fluids, heat,
and the ability to block
infection



third degree
full-thickness burn
both dermis and
epidermis destroyed;
nerve ending destroyed;
NO feeling of pain
lose fluid, heat, and ability
to block infection



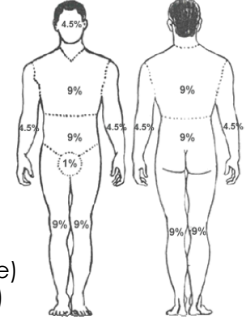
IS - Appendages and Imbalances

RULE OF NINES

- body surface area varies with height and weight
- assessment tool used to determine the approximate extent of body surface area burned
- body divided into 11 regions
- each region accounts for 9% of skin surface area = 99%
- remaining 1% accounts for the groin

RULE OF NINES - 11 BODY REGIONS

- head
- right arm
- left arm
- chest
- abdomen
- upper back
- lower back
- right thigh
- left thigh
- right leg (below the knee)
- left leg (below the knee)



WHAT IS A SUNBURN?

- sunburn = a burn to the skin caused by ultraviolet (UV) radiation
- sun gives off UVA & UVB rays
 - both are damaging to skin
 - UVA = aging
 - UVB = burns
- symptoms
 - redness and irritation
 - blistering
 - overexposure can lead to shock (vital organs do not function properly) and even death (sun poisoning)