**Study Guide for Unit 4: Integumentary System**

* What are at least 3 functions of the skin?
* What are the two distinct layers of the skin?
* What is the tissue underneath the skin called?
* What lies between the epidermis and the dermis?
* What are the layers of the epidermis? Which layer produces new cells? Which layer is made up of keratinized cells and is the outermost layer?
* Be able to identify the layers of the skin, including the specific layers of the epidermis
* What are melanocytes? What do they produce? Where are they found? What is the importance of melanin?
* Dermis
	+ Function
	+ How do fingerprints form?
		- Dermal papillae
	+ What is it comprised of?
	+ 2 sensory receptors
		- Pacinian corpuscles- what do they sense?
		- Meissner’s corpuscles- what do they sense?
	+ Accessory organs
		- Hair follicles (identify on diagram)
			* What do they produce?
				+ What is hair made of?
				+ What determines hair color?
			* Arrector pili muscle (identify on diagram)
				+ What do they cause when they constrict?
			* Sebaceous gland empties out onto hair shaft
				+ What does this do?
		- Nails
			* Function?
			* Nail bed and nail plate Lunula- what is this the site of?
			* What is a nail made of?
		- Skin glands
			* Sebaceous
				+ Holocrine

Cells fill with fat and then burst

Sebum

* + - * + What is the function of sebum for hair?
				+ How does it relate to acne?
			* Sweat/sudoriferous
				+ Widespread
				+ Most numerous are the eccrine glands
				+ Sweat carried to surface of skin to an opening known as a pore
				+ What is sweat made of?
				+ Sweat production helps to cool the body down
				+ Apocrine sweat glands are associated with a strong odor when their products are digested by bacteria
				+ What is one example of a modified sweat gland?
* Subcutaneous layer/hypodermis
	+ Not really a layer of skin but what lies beneath
	+ What types of tissues comprise this layer?
	+ Identify hypodermis on picture/diagram
* Temperature issues
	+ Hyperthermia and Hypothermia
	+ What is the problem with a humid day?
	+ How does sweating work to cool us down?
* Skin color
	+ What can determine skin color?
	+ How has it evolved?
* Healing of wounds and burns
	+ Inflammation- what happens and why?
	+ Cuts
		- Scab formation- blood clots, fibroblasts, and growth factors, phagocytes (what role do they all play?)
	+ Burns
		- Know the three degrees and how they are different from one another
		- Rule of 9’s- be able to figure out problems
* Aging
	+ Why does our hair turn gray/white when we age? Why does our skin sag and wrinkle when we get older?
* Skin diseases
	+ Recognize the symptoms and treatment of
		- Baldness
		- Psoriasis
		- Eczema and acne
		- Vitiligo
		- Athlete’s foot
		- Albinism
* Skin cancer
	+ Cutaneous carcinoma or cutaneous melanoma
	+ Risk factors