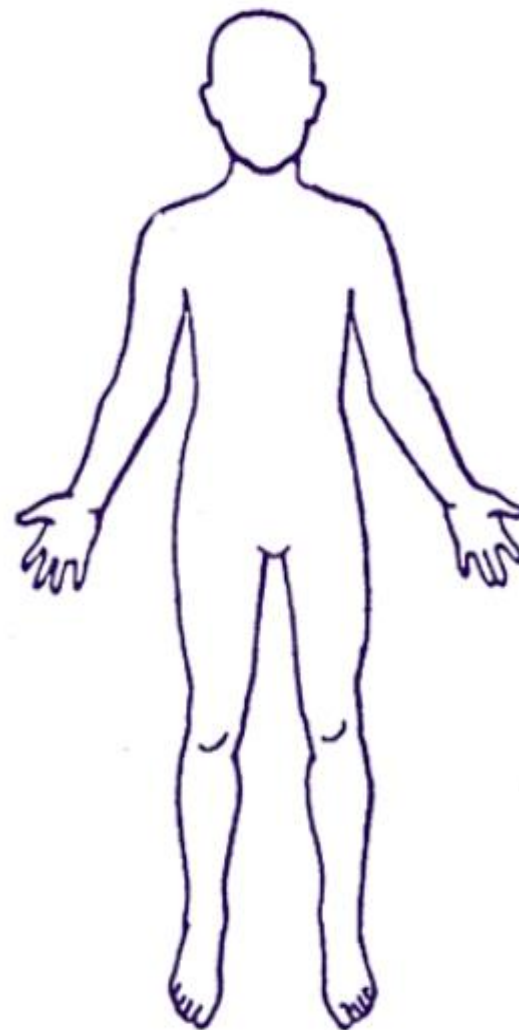


Summer Homework #2: Endocrine System!!

Part One Directions:

- 1) Go to google images and look for a diagram of the endocrine system on the web. In the blank body to the right, draw the endocrine glands. If you are a male, draw the male endocrine glands. If you are a female, draw the female endocrine glands. Label each gland clearly!
- 2) With the hormones listed below, identify what gland they are secreted (released) from and what is their function (what do they do)? Use any website you would like.

Name of Hormone	Gland that secretes the hormone	Function of the hormone
Insulin		
Adrenaline/Epinephrine (AKA The Fight or Flight Hormone)		
Thyroxine		



Part Two Directions:

Fill out the table on Page 2 using the internet.

Part Three Directions:

The following was an AP Free Response questions that was given on a past AP test. Read the question carefully and answer each section to the best of your ability. You may use your book, the internet, or notes to answer this section, but please do not use each other! Also, make sure everything is answered in a paragraph form. Be prepared to discuss on the first day of school!

1. Homeostatic maintenance of optimal blood glucose levels has been intensively studied in vertebrate organisms.
 - (a) Pancreatic hormones regulate blood glucose levels. **Identify** TWO pancreatic hormones and **describe** the effect of each hormone on blood glucose levels.
 - (b) For ONE of the hormones you identified in (a), **identify** ONE target cell and **discuss** the mechanism by which the hormone can alter activity in that target cell. **Include** in your discussion a description of reception, cellular transduction, and response.
 - (c) **Compare** the cell-signaling mechanisms of steroid hormones and protein hormones.

Endocrine System: Glands and Functions, Chapter 45

Background: A hormone is a chemical signal secreted into body fluids (blood) that communicate regulatory messages. Target cells are body cells that respond to hormones. Endocrine system/glands are hormone-secreting system/glands. And, neurosecretory cells are actual cells that secrete hormones.

Name of Gland	Pic and Location	Hormone(s) Created	Function of Hormone
Hypothalamus		ADH	
Pituitary		Oxytocin	
Thyroid		Calcitonin	
Parathyroid		PTH	
Thymus		Thymosin	
Adrenal Glands		epinephrine cortisol	
Pancreas		Insulin	
Ovary (female)		Estrogen Progesterone	
Testes (male)		Testosterone	

Part Four: Diabetes!

Research the most common endocrine system problem in the United States, diabetes. Answer the questions below about diabetes. Be sure to cite your source of information!

1) In general, what is diabetes?

Internet Source: _____

2) What is Type I diabetes? Why is it sometimes called juvenile diabetes?

Source: _____

3) What is Type II diabetes?

Source: _____

4) What is gestational diabetes?

Source: _____

5) What are some of the symptoms of diabetes (how do you know you have it?) Give at least three.

Source: _____

6) What are some health effects of having diabetes? Give at least three and explain each thoroughly.

Source: _____

7) How can diabetes be prevented (how can we not get it)?

Source: _____

8) Once you have diabetes, what are the treatments for this disease?

Source: _____

9) Do you know anyone who has diabetes in your family? How did they acquire this disease?

Source: _____

10) Why must someone with diabetes constantly monitor their blood sugar levels with the devices that prick their fingers? Explain.

Source: _____