

Human Anatomy Chapter 19, These are due Monday, Jan 30th at the beginning of class. **Write your answers neatly and legibly on a separate piece of paper that you will turn in.** Be prepared to discuss your answers. You may need to access outside resources to completely answer these questions.

1. After reactor #4 at the Chernobyl Nuclear Power Station exploded at 1:23 PM on April 26, 1986, a great plume of radioactive isotopes erupted into the air and spread for thousands of miles. Most of the radioactive isotopes were of the element iodine. Which glands of the endocrine system would be most seriously affected and how do you think this would become evident in nearby populations?
2. A friend of yours lives with her mother who is very sick and close to death. Your friend is emotionally distraught from dealing with impending death of her mother and feels shaky, distracted and generally ill. Another friend tell her, "It's just stress, it's all in your head." Is it?
3. Parents wanting their children to be taller have requested injections of human growth hormone. Where is this hormone produced? Do you think this is wise? Why or why not?
4. The adrenal cortex of a patient who has lost a large volume of blood will increase secretion of aldosterone. What effect will this have on the patient's levels of sodium and potassium ions in their blood? How will this result in increases in blood volume?
5. How are blood glucose concentrations regulated? Outline the important steps, beginning with eating carbohydrates.
6. Why do nutrition experts advise against eating foods with a high glycemic index?