- List each major human endocrine gland and its function. I recommend making flashcards for this.

- Why do hormones have different effects on different cells?

- Describe the different effect that adrenaline has on different cell types:

- Describe the steps of a simple hormonal pathway. Give an example.

- What kind of hormone is involved in a complex pathway? Define this term.

- Be able to list three complex endocrine axes.

- What two endocrine organs are the master regulators of many different hormonal axes?

- Describe the role of the hypothalamus. What does it do (two key functions)?

- Describe the anatomical connection between the hypothalamus and pituitary:

- What is the neurohypophysis/posterior pituitary? What does it do?

- Define tropic and nontropic hormone. What tissue/organ type does each type of hormone target?

- What does the adenohypophysis do? How is it regulated?

- Name three major hormonal axes that are controlled/initiated by the hypothalamus:

- When we say that a hormonal axis controls “growth”, what physiological growth processes are we actually talking about (3)?

- What hormonal systems are involved in regulating growth, and what physiological process does each control (3)?

- What stimulus causes release of growth hormone?

- Explain the three effects of growth hormone. Classify each effect as tropic or nontropic. Explain how its three effects are interrelated.

- What will happen with too much growth hormone? Not enough growth hormone?

- How does the body regulate growth hormone levels (negative feedback loop)?

- Describe the steps of the hypothalamus-pituitary-thyroid axis (could be a good place for a flow chart). What does the final hormone do to the body?

- How does the body regulate thyroid hormone levels (negative feedback loop)?

- What happens with too little thyroid hormone? Too much thyroid hormone?

- What two hormones regulate blood sugar levels?

- Where are they produced?

- What physiological effect does each hormone have, and what is the mechanism for this effect? What stimulus causes each hormone to be released?

- Describe insulin/glucagon and blood sugar cycling after you eat a meal. Again, potentially a good place to draw a flowchart for studying purposes.

- Explain how the renin-angiotensin-aldosterone axis works. What is the trigger for this hormonal axis? What happens when the axis is triggered? Again, potentially a good place to draw a flowchart for studying purposes.

- Describe how the RAA axis and the ADH system are activated in response to a) hyperosmolarity and b) hypovolemia, in order to bring salt and water balance back to normal.