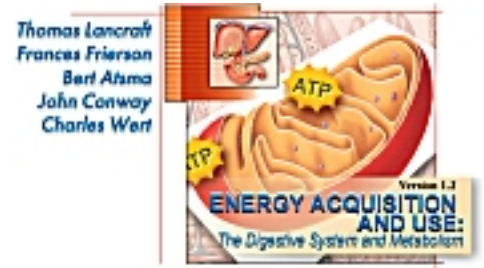


# Hormonal Control of Digestive Activities

## Directions:

- Click the "Contents" button,
- Open the Digestive System File,
- Click Animations,
- Click Hormonal Control of Digestive Activities



## Introduction

- Hormones regulate several digestive activities. As review, describe each of the following parts of an endocrine feedback loop.



*Stimulus* \_\_\_\_\_

*Production Cell* \_\_\_\_\_

*Hormone* \_\_\_\_\_

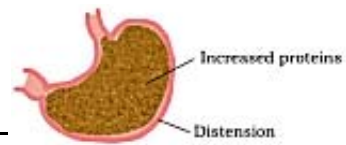
*Target Cell* \_\_\_\_\_

*Action* \_\_\_\_\_

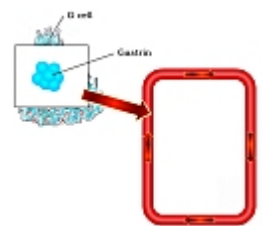
*Response* \_\_\_\_\_

## Gastrin (increased stomach distention)

- Describe the two events that stimulate gastrin secretion. \_\_\_\_\_



- Describe G cell function. \_\_\_\_\_



- What are the gastrin target cells and where are they located? \_\_\_\_\_

- Describe the response of gastric mucosal target cells to gastrin.

*Parietal Cells* \_\_\_\_\_

*Chief Cells* \_\_\_\_\_

- Describe the stomach's response to increased pepsin and gastric acid. \_\_\_\_\_

\_\_\_\_\_

7. What effects does gatin have on smooth muscle cells of the muscularis? \_\_\_\_\_

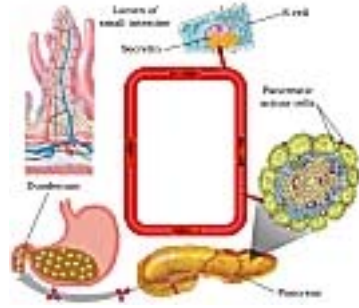


**Secretin (increased stomach distention)**

8. Acidic chyme entering the duodenum is the stimulus.

Identify the production cells \_\_\_\_\_

Identify the hormone \_\_\_\_\_



9. a. What is the secretin target? \_\_\_\_\_

b. What is the target response? \_\_\_\_\_

c. What is the affect of bicarbonate? \_\_\_\_\_

10. a. Describe the stomach mucosa's response to secretin. \_\_\_\_\_

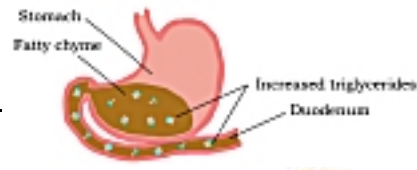
\_\_\_\_\_



**Cholecystokinin (increased acidic chyme)**

11. What stimulates production of *cholecystokinin (CCK)*? \_\_\_\_\_

\_\_\_\_\_



12. a. Identify CCK target cells. \_\_\_\_\_

b. What is the target cell response? \_\_\_\_\_

\_\_\_\_\_

c. How does this endocrine loop address increased chyme fat? \_\_\_\_\_

\_\_\_\_\_



13. Describe the *enterogastric reflex*.

What stimulates the reflex? \_\_\_\_\_

What is the CCK target and its response? \_\_\_\_\_

Explain the necessity of the enterogastric reflex. \_\_\_\_\_

\_\_\_\_\_

