

## Secretin

Secretin is a gastrointestinal hormone secreted from S cells located in the duodenum. Secretin release is stimulated by fatty acids in the duodenum. Secretin stimulates pancreatic bicarbonate secretion and bile acid secretion from the liver to help with digestion. Once the duodenum senses food in its lumen, secretin helps to decrease gastric acid secretion from the stomach to avoid excess acid that would damage duodenal mucosa.



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### Synthesis

#### Secreted from S Cells in Duodenum

[Secreted from \(S\) Snake and Dodo-denim](#)

Secretin is a peptide hormone produced by the S cells located in the duodenum.

### Regulation

#### Stimulated by Fatty Acids in Duodenum

[Stimulated by Bacon Acidic-lemons in Dodo-denim](#)

The secretion of secretin is stimulated by the presence of fatty acids in the duodenum. After a food bolus passes through the pyloric sphincter, fatty acids are sensed by the intestinal epithelial cells and signal S cells to increase secretion of secretin. Secretin helps start the digestion of fatty acids in the small bowel.

### Functions

#### Increases Bicarbonate Secretion

[Up-arrow Bi-Car Bombs](#)

Secretin increases bicarbonate secretion by ductal cells of the pancreas. It also stimulates the Brunner's glands of the duodenum to secrete bicarbonate. Bicarbonate buffers the acidity from chyme and also decreases the secretion of acid by gastric parietal cells.

#### Increases Bile Acid Secretion

[Up-arrow Bile Acid](#)

Secretin stimulates bile secretion from the liver which then can be stored in the gallbladder. The main function of bile is to emulsify and absorb lipids in the small bowel.

#### Decreases Gastric Acid

[Down-arrow pouring Gas](#)

Secretin inhibits the secretion of gastric acid from the parietal cells of the stomach. Gastric acid has a pH between 1 and 3 and plays a major role in activating digestive enzymes and also preventing many infectious agents from entering the intestinal tract. By decreasing gastric acid secretion, secretin helps to prevent mucosal damage to the small bowel from the acidity in the stomach passing through the pyloric sphincter.