


The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the middle of the slide.

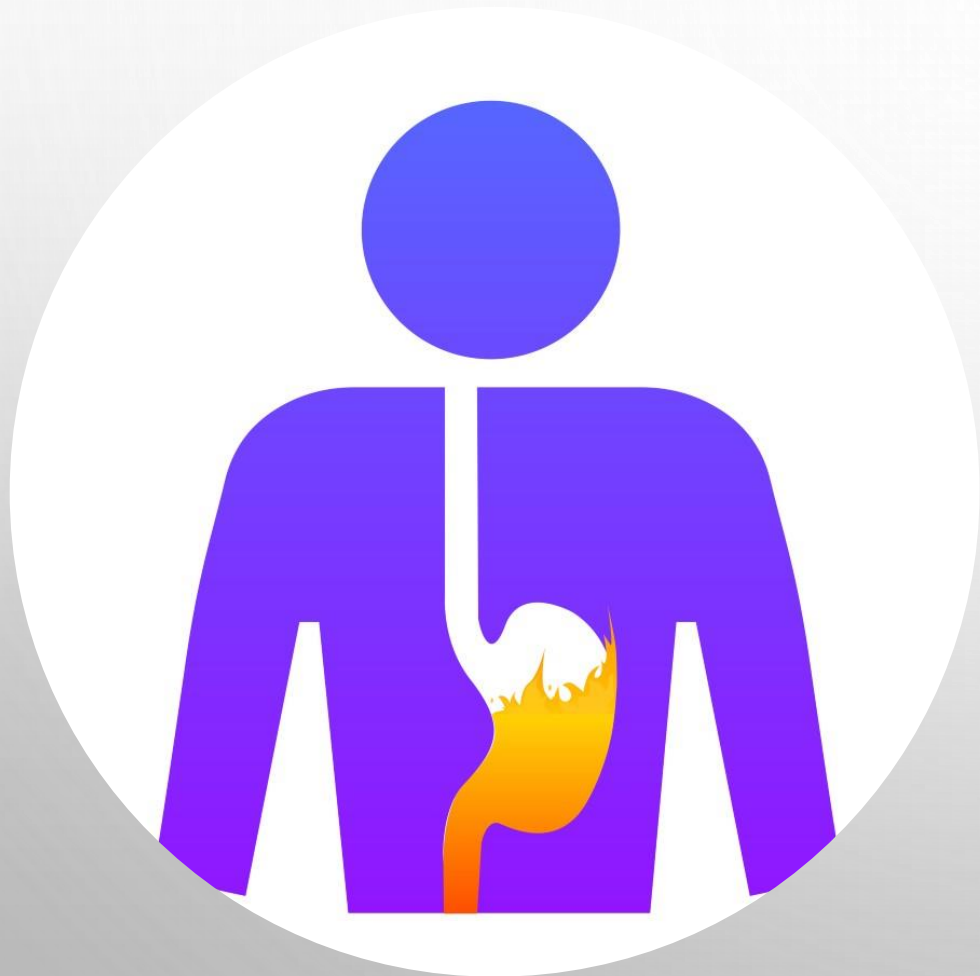
DIGESTIVE SECRETIONS



SECRETION is the release of
digestive juices into the digestive
tract.

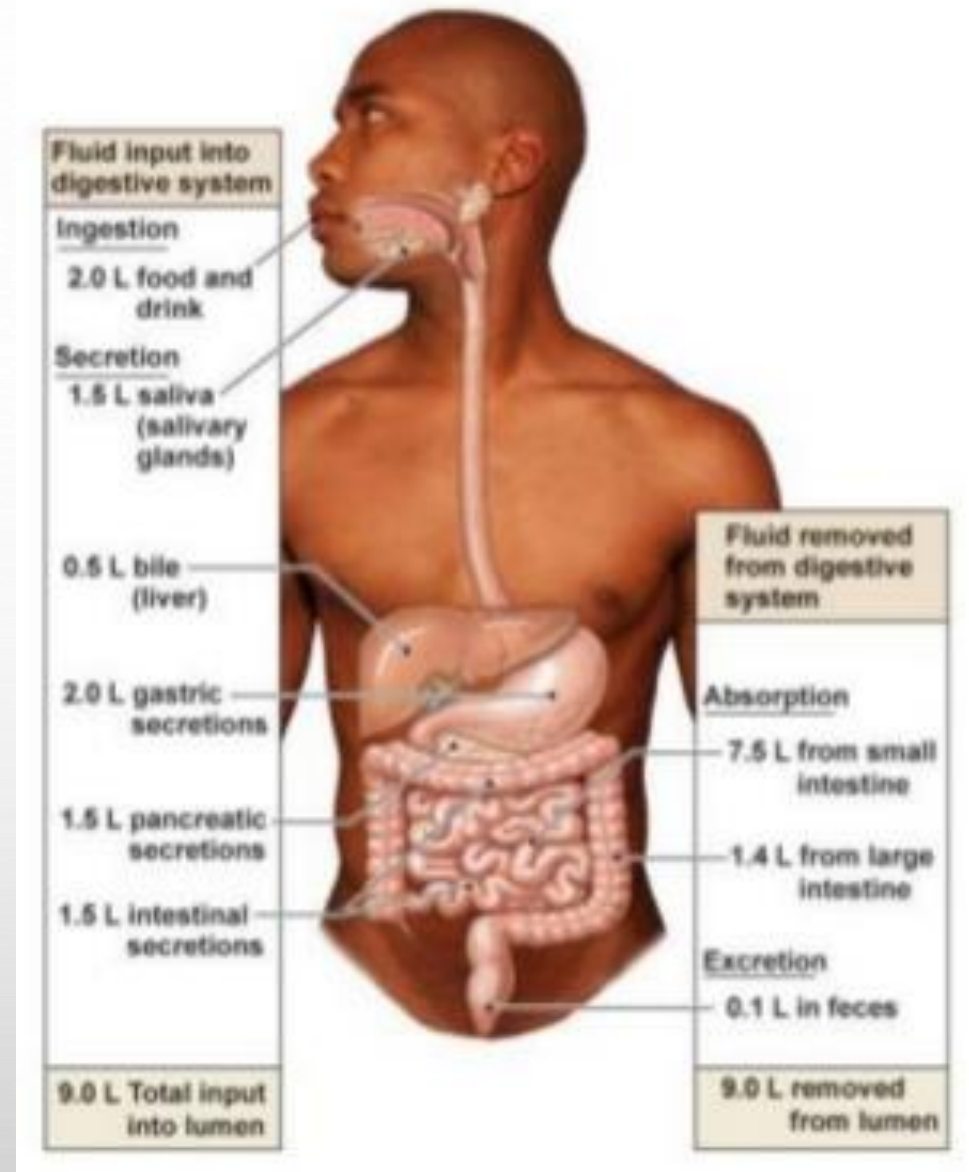
These juices help digest and
absorb food.





Secretion “juices” are
largely
**HYDROCHLORIC
ACID**
and **ENZYMES**

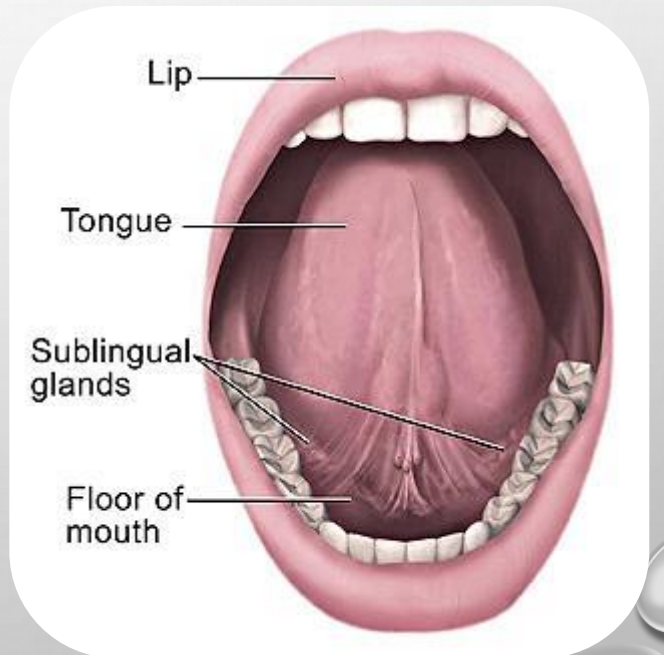
About **9 LITRES** of fluid pass through the digestive system each day (only **2 L** of which are ingested food and drink!)

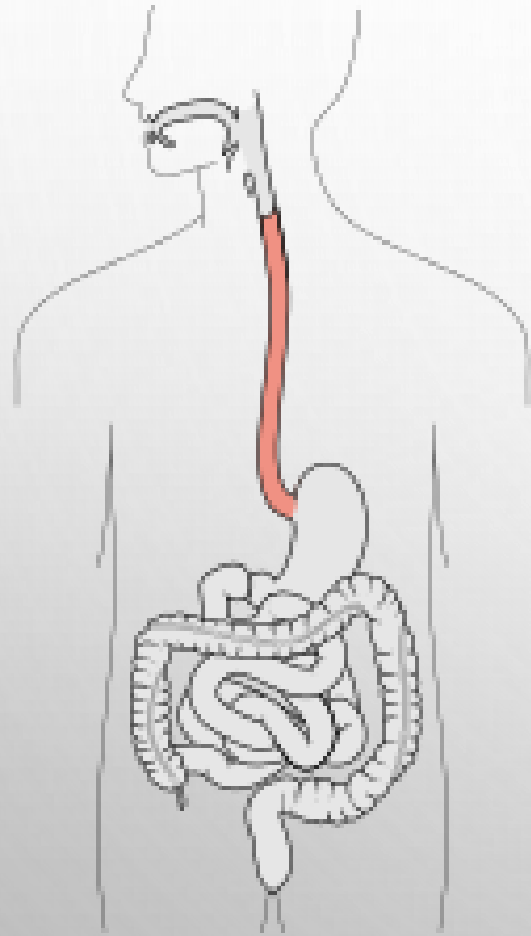


Saliva

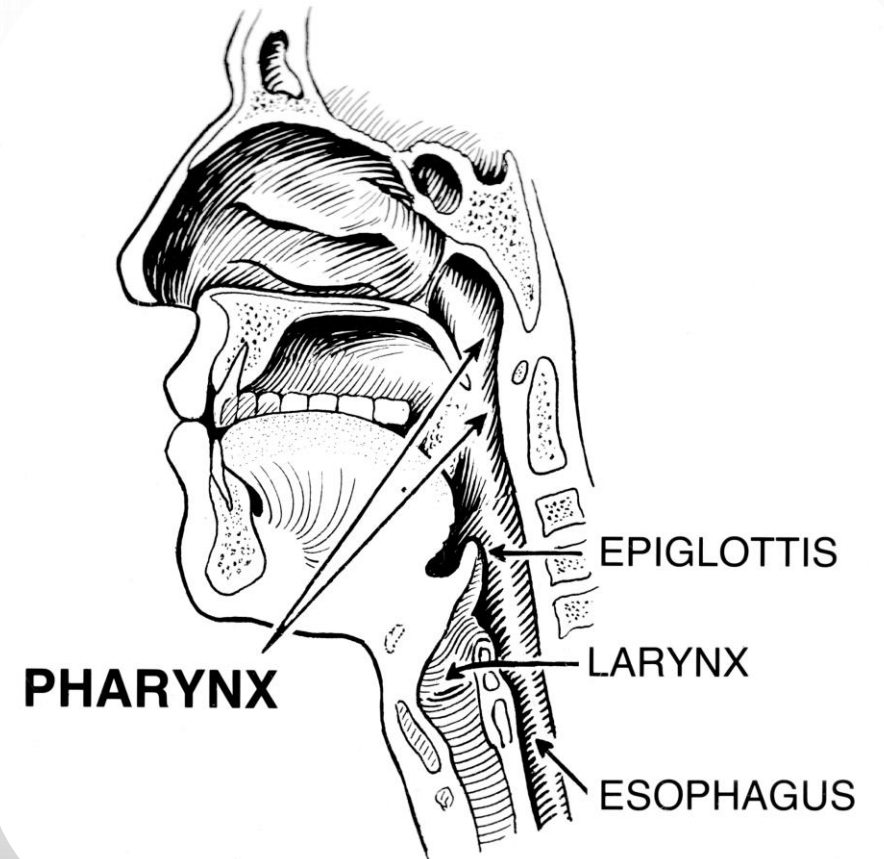
The first encounter with secretion during digestion is **SALIVA** in the mouth.

- saliva dissolves food.
- saliva contains mucin, a protein that lubricates the bolus (chewed up food ball).

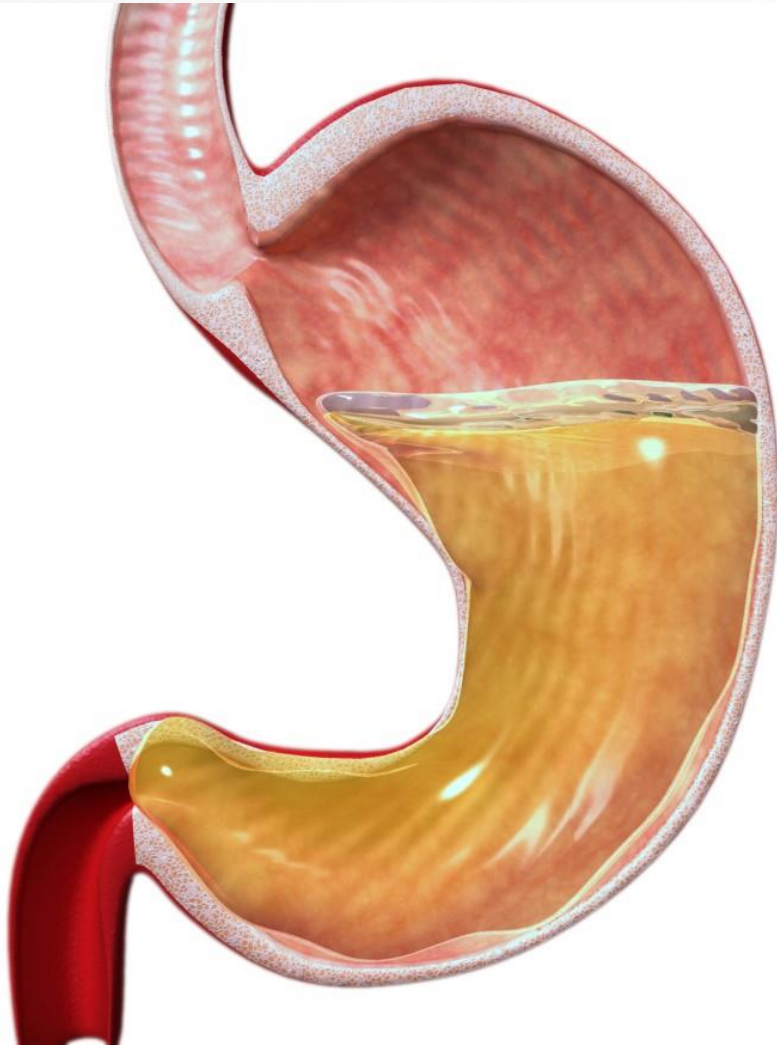




Secretion also functions to **lubricate** and **protect** the digestive system while food passes through.

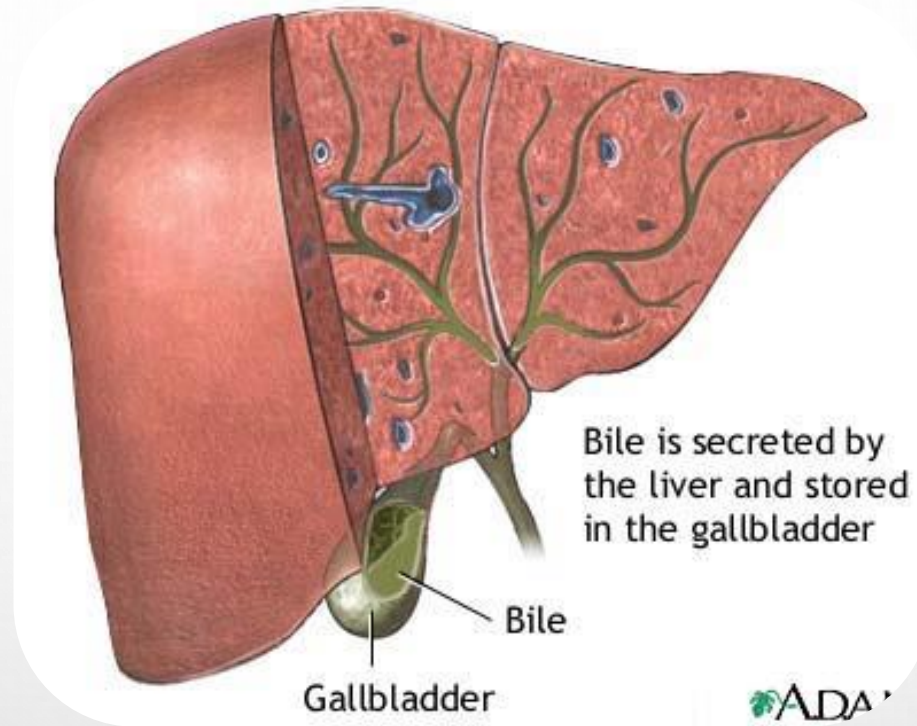


SECRETION ALSO HAPPENS IN THE STOMACH.

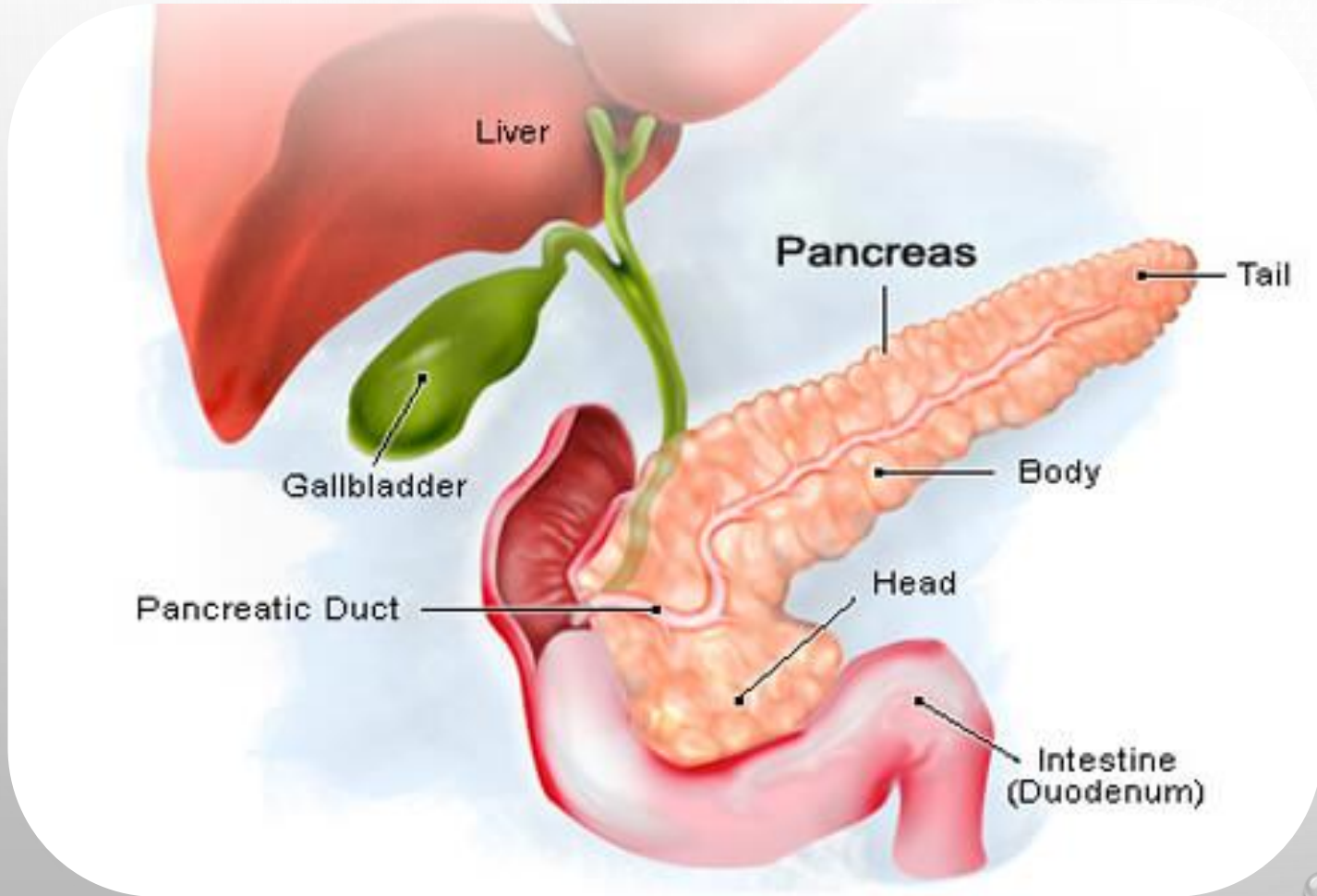


Our stomach **parietal cells** secrete HYDROCHLORIC ACID (HCl) which makes up our gastric juice which breaks down food.

Goblet cells secrete mucus to protect our stomach lining from the highly acidic HCl.



Gall bladder stores excess, unused bile, and concentrates it. Then it secretes it when needed. Bile is an emulsifying agent (not an enzyme). Bile breaks down large fat droplets into smaller microscopic droplets by forming micelles.



The pancreas is the major source for all the digestive enzymes.

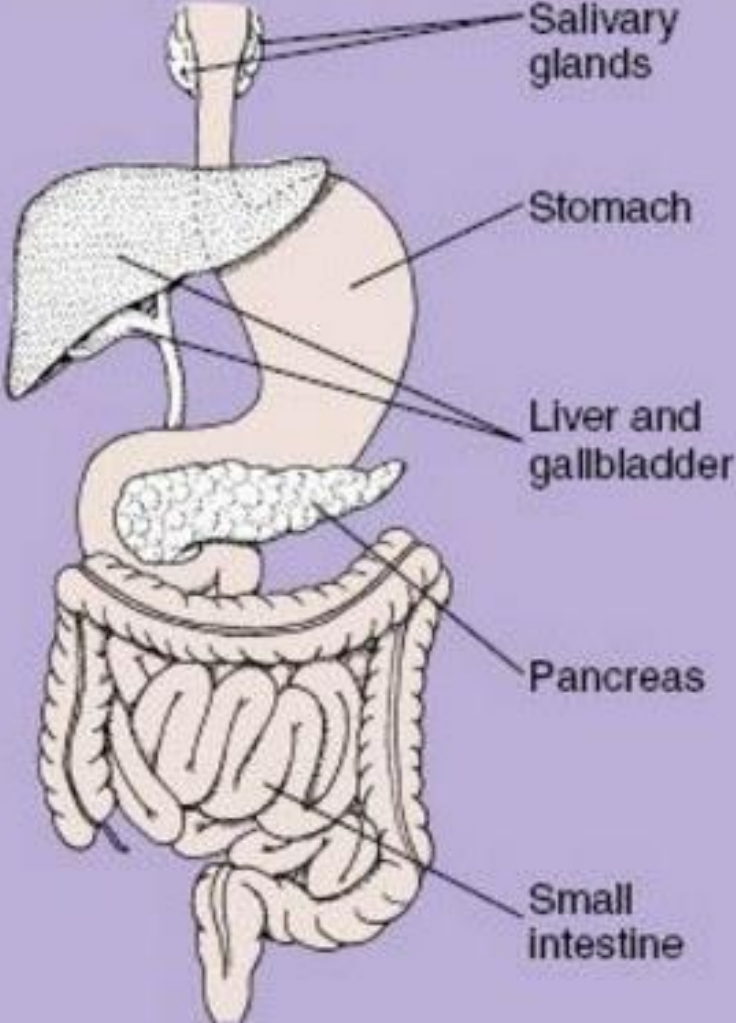
It also produces HCO_3^- to neutralize HCl from the stomach.



- The small intestine is the major place for digestion and absorption.
- Pancreas is the major source for enzymes. However, the small intestine does make some of its own enzymes, including protease and amylase.

QUICK REVIEW



REGION	SECRETION
 <p>Salivary glands</p>	Saliva
<p>Stomach</p>	Gastric juice
<p>Liver and gallbladder</p>	Bile
<p>Pancreas</p>	Pancreatic juice
<p>Small intestine</p>	Membrane enzymes