

Natural Protection from Reflux of Acidic Stomach Contents

There is a backflow of small amounts of stomach contents into the food pipe, usually every day. That typically happens when one exercises or bends down or does any activity, which increases the intraabdominal pressure after a meal. However, the body has protective mechanisms to save itself from the harmful effects of the backflow of the small amount of acid. These protective mechanisms are:

- ***Upright or sitting versus lying down position*** –In the upright and sitting posture, gravity helps to push down refluxed contents back into the stomach.
- ***Swallowing mechanism***- An awake individual is consistently swallowing saliva. The saliva is an alkaline digestive juice secreted by the salivary glands in the mouth. It neutralizes the acidic stomach juices — the human salivary glands on an average secrete about 1.5 liters of saliva each day. The salivary secretion and the swallowing stops during sleep, so the abnormal backflow of acid in the food pipe cannot get neutralized.
- ***Reliable and secure lower esophageal sphincter or muscular ring***- The lower end of the food pipe is separated from the stomach by a muscular ring. Usually, the sphincter or muscular ring is tight and prevents the backflow of stomach contents into the food pipe. Any laxity of this muscular ring will increase the backflow of stomach acid into the food pipe. Three common conditions which cause laxity of the muscular ring at the lower end of the food pipe are:
 - a) **Obesity**
 - b) **Hiatal Hernia**
 - c) **Late-stage of pregnancy**

(Picture showing healthy versus ac

