|  |
| --- |
| *"More than 60 million Americans get heartburn at least once a month, " (Increasing). It is clear that heartburn and acid reflux* *are common occurrences in the United States.*  Acid indigestion, acid reflux, and heartburn are all names used to describe an uncomfortable feeling one may sense habitually or just periodically. It is generally a primary result from Gastroesophageal Reflux, which is when hydrochloric acid and the enzyme pepsin from your stomach get sloshed up into your esophagus instead of continuing to flow through the digestion tract (Janowitz 42). To understand completely what Heartburn is, it is important to review how digestion works, and even more specifically how the stomach and esophagus play an important role in digestion.  Food first enters one�s digestive system through the mouth where it is softened by saliva, broken down into very small pieces, and swallowed. The food pieces then move through the esophagus, where no digestion takes place, and the pieces of food are transferred to the stomach where most of the digestion occurs (Elgin 28). At the end of the esophagus, the food flows through the cardiac opening through the esophagus sphincter and down into the Fundus, the upper part of the stomach. Next, the food travels from the Fundus to the Pylomus where the bulk of the disassembling of food pieces happens (Parker 23). Inside the stomach, enzymes are released that help break down the food into even smaller molecules which can be easily digested. Pepsin and Trypsin break down the protein molecules while Amylase and Maltase break down the molecules of carbohydrates. Lipids need a special lipid soluble enzyme called Lipase to digest them (Parker 12).  These enzymes are part of what is known as gastric juice, or the acid that breaks down all the food we consume. In addition to the enzymes, Gastric Juice contains high amounts of Hydrochloric acid, which, not only breaks down food, but also destroys a large amount of bacterium that might be present (Elgin 34). Once the food molecules have traveled through the stomach and have been almost completely digested, then leave the stomach in the form of Chyme and enter into the small intestine to finish their passage through the digestive tract (Parker 24). This is where problems might arise.  Acid indigestion could occur just after the stomach has finished its digestive jobs; it might have trouble emptying itself into the small intestine, which would be the next stage of digestion. In this case, pressure would build in the Pylomus and push the Chyme up into the Fundus, which would put pressure on the Esophageal Sphincter. This could cause the sphincter to flap open and permit Chyme, Hydrochloric acid and partially digested food, up into the esophagus (Janowitz 44). The pain felt is a result of the lining of the esophagus coming in contact with an extremely acidic environment that it is not accustomed to. This is one form of acid reflux.  More often, acid reflux is a result of a weak or malfunctioning Esophageal Sphincter muscle. The job of this muscle is to soften when one swallows to allow food into the stomach, and then to snap shut once the food has passed (Carper 149).  [<----- Back](http://docs.google.com/home.html)  [Next----->](http://docs.google.com/intro2.html)  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |