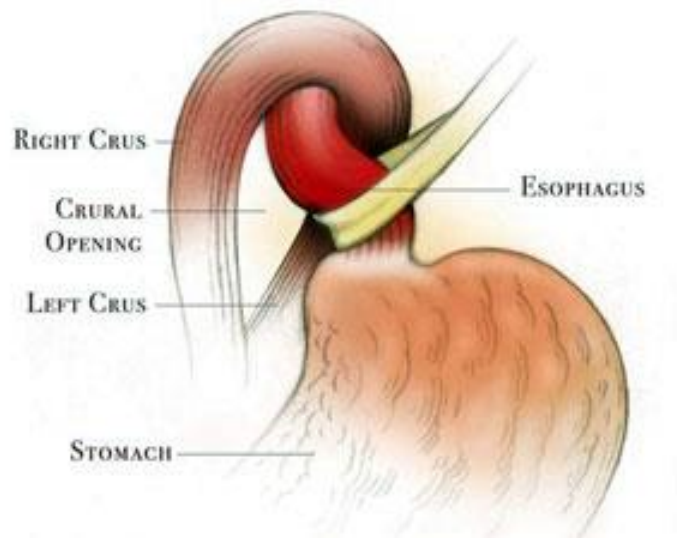


GASTRO ESOPHAGEAL REFLUX DISEASE (GERD)

GERD is a chronic digestive disorder associated with heart burn and acid reflux.

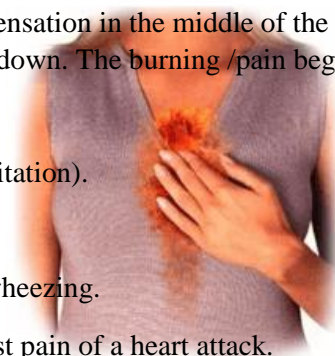
About 20% of the population suffers from GERD. GERD lowers the quality of life.

It occurs when the acidic contents of the stomach **ABNORMALLY** flows back into the distal end of the food pipe (esophagus). The backwash (reflux) **irritates** and **burns** the inner lining of the esophagus causing the disease entity, GERD. The pathophysiology of GERD is **not due to acid overproduction** but rather **mechanical dysfunction** centered around the valve between the esophagus and the stomach; the lower esophageal sphincter (LES).



Symptoms of GERD:

- Heartburn is the most common symptom. It is a burning sensation in the middle of the chest, moving to the neck and throat. It may worsen when lying down. The burning /pain begin within an hour of eating.
- Acid or bitter taste in the mouth
- A feeling that food is coming back into the mouth (regurgitation).
- Hoarseness of voice, laryngitis and earache.
- Tooth, gum and bad breath problems
- Asthma-like symptoms; chest congestion, coughing and wheezing.



In some cases the reflux attack may be so severe to mimic the chest pain of a heart attack.

If untreated GERD can cause:

- Esophagitis
- Barret's esophagus
- Esophageal bleeding with ulcers
- Chronic cough

- Chronic Laryngitis and Bronchiectasis
- Asthma
- Esophageal cancer

Diagnosis

- Symptoms
- Endoscopy-OGD
- 24hr pH monitoring
- Esophageal manometry

Treatment

A. Lifestyle

- Healthy diet
- Healthy weight
- Posture and dressing

B. Medication

- Antacids; neutralizes stomach acid
- Proton Pump Inhibitors (PPI's); reduces acid production
- H₂ Receptor Antagonists; blocks acid production
- Pro-Kinetics; increases emptying of the stomach

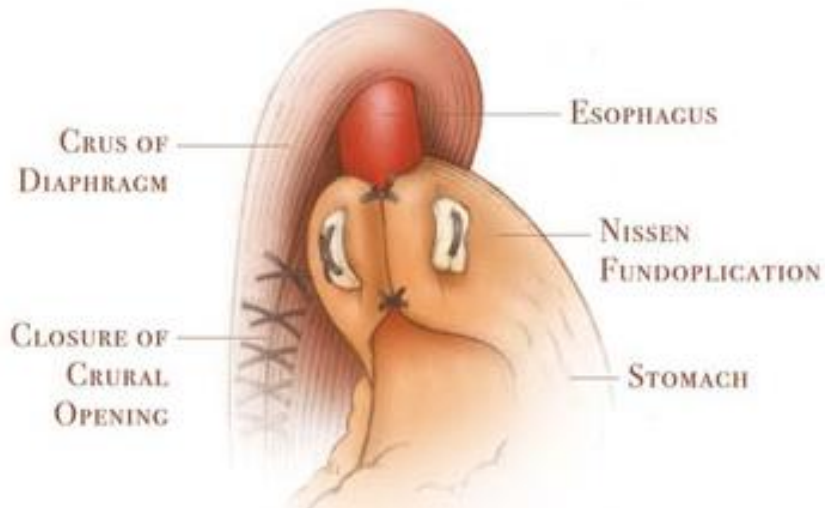
There has been a growing concern of the adverse effects due to prolonged use of PPI's recently.

C. Surgery

About 20% of GERD patients **RESPOND** to but are **DEPENDENT** on medication (i.e. the symptom disappears while on medication for a short while but comes back within a short period while not on medications). These are candidates for **ANTIREFLUX SURGERY**.

Antireflux surgery:-

- Reduces the esophageal opening on the diaphragm
- Lengthens the abdominal part of esophagus
- Fundoplicates over the distal esophagus



Methods

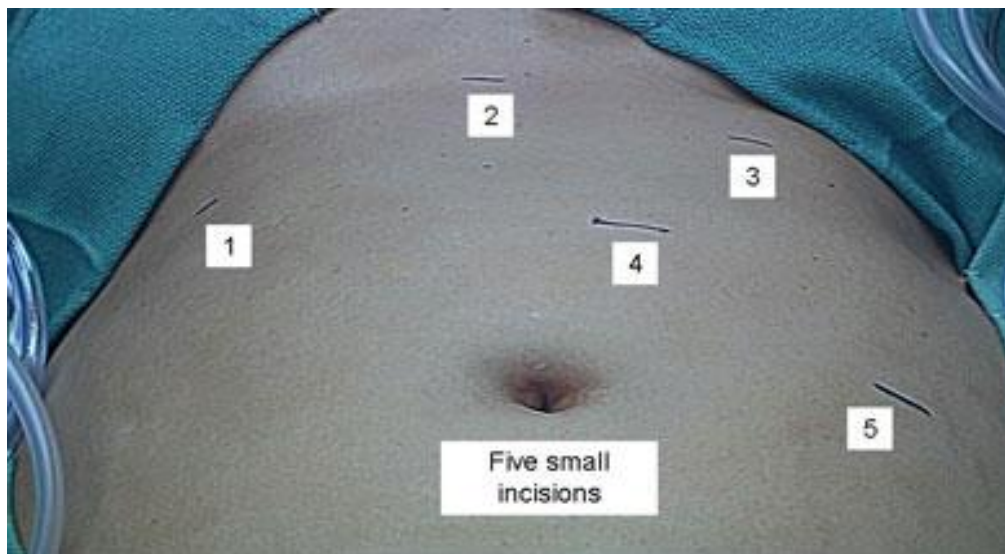
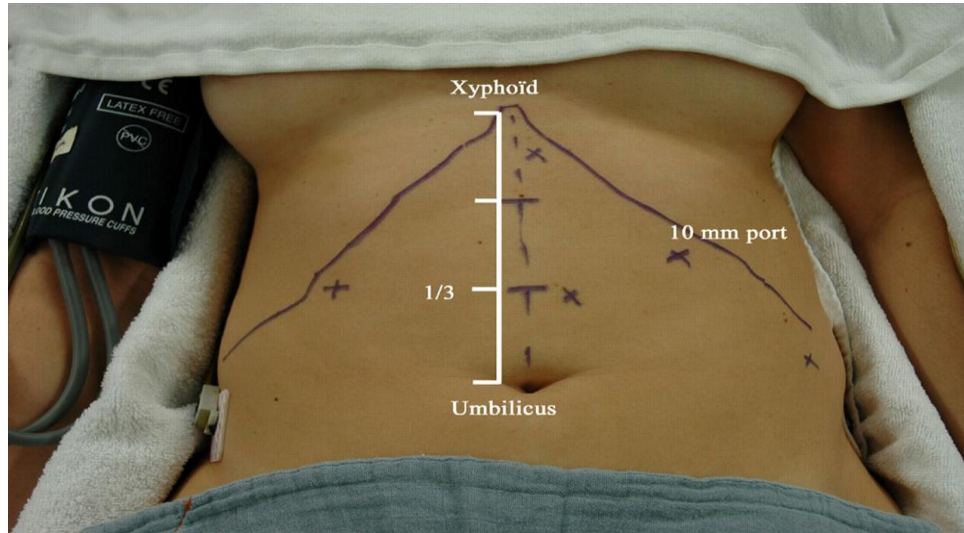
- 1) Open Nissen's Fundoplication (1956)
 - Hospital stay <7 days
 - Absence from work 6-8 weeks

- 2) Laparoscopic Nissen's Fundoplication (*LNF*)-1st REPORTED in the world in 1991 By Bernard Dallemagne and at *Kenyatta National Hospital (KNH)* on 28th February 2009 by Bernard M. Ndung'u

Laparoscopic Nissen's fundoplication is a minimally invasive procedure which is done to restore the function of the lower esophageal sphincter by wrapping the stomach around the esophagus. This procedure creates a new "functional valve" between the esophagus and the stomach and prevents reflux of the acid and bile (non-acidic fluid) from the stomach into the esophagus. It is well studied that patients with typical (common) symptoms of gastroesophageal reflux disease – heartburn, regurgitation and dysphagia (difficulty swallowing) – who respond well to antacid therapy and have a positive esophageal pH assessment (evidence of acid in the esophagus) have the best outcome after laparoscopic Nissen's fundoplication.

Following surgery, patients stay in the hospital for one night. They start drinking one day after surgery and are discharged home. They will follow dietary restrictions for about two weeks and thereafter the clinic visit two weeks after surgery.

Ports placement: the camera port is placed in a slight paramedial position, about 1/3 of the distance between umbilicus and xyphoid.



- Hospital stay <3 days
- Absence from work <1 week

Hundreds of patients have benefited from this treatment since then. **“Most patients wish they had undergone LNF years earlier...”**