



GHADIALI

General Surgery

P R E S E N T S

Dr. Mufa T. Ghadiali is skilled in all aspects of General Surgery.
His General Surgery Services include:

- General Surgery
- Advanced Laparoscopic Surgery
- Surgical Oncology
- Gastrointestinal Surgery
- Hernia Surgery
- Endoscopy

Gastritis

Multimedia Health Education

Disclaimer

This movie is an educational resource only and should not be used to manage gastritis or other digestive conditions. All decisions about the management of gastritis or digestive conditions must be made in conjunction with your Physician or a licensed healthcare provider.

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GHADIALI

MULTIMEDIA HEALTH EDUCATION MANUAL

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INTRODUCTION

Gastritis is inflammation of the inner lining of the stomach, also called the gastric mucosa. Gastritis can be acute, occurring suddenly and briefly, or chronic, occurring over a long period of time or with recurrences.

This learning module will help you understand the causes of Gastritis, the symptoms, and how it is diagnosed and treated. To Understand Gastritis, it is important to know the upper Gastro-intestinal function and anatomy.

The Gastrointestinal System

The gastrointestinal system is essentially a long tube running right through the body, with specialized sections that are capable of digesting material put in from the mouth and extracting any useful components from it, then expelling the waste products at the anus.

Food after ingestion undergoes three types of processes in the body:

- Digestion
- Absorption
- Excretion

The whole system is under hormonal control, with the presence of food in the mouth triggering off a cascade of hormonal actions; when there is food in the stomach, different hormones activate acid secretion, increased gut motility, enzyme release etc. Nutrients from the GI tract are not processed on-site but will be absorbed and taken to the liver through blood circulation to be broken down further, stored, or distributed.

(Refer fig.1)

Esophagus (Food pipe)

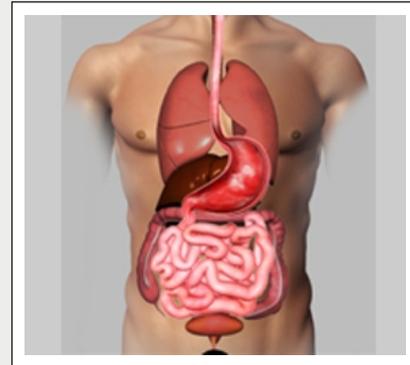
The Esophagus is a muscular tube that connects the pharynx (throat) to the upper end of the stomach. The esophageal wall is made up of layers of muscles that help push the food into the stomach by waves of peristalsis.

(Refer fig. 2)

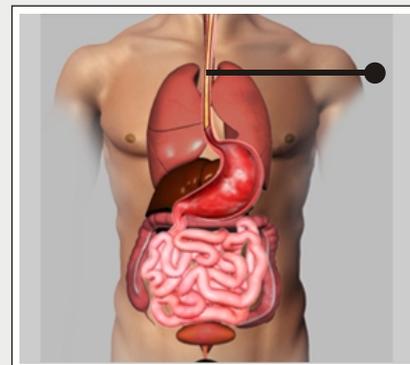
Lower Esophageal Sphincter (LES)

Lower esophageal sphincter (LES) is a band of muscles at the junction of the esophagus (food pipe) and the stomach. LES acts as a "valve" to prevent reflux of acid and chyme (food mixed with acid & digestive enzymes) from the stomach to the food pipe.

(Refer fig. 3)

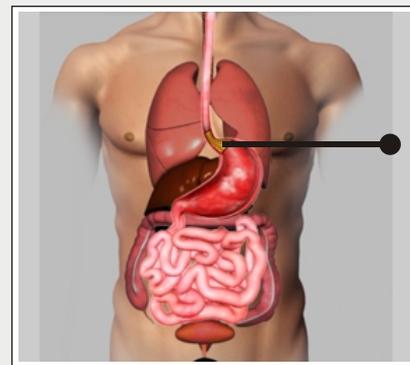


(Fig.1)



Esophagus

(Fig.2)



Lower Esophageal Sphincter

(Fig.3)

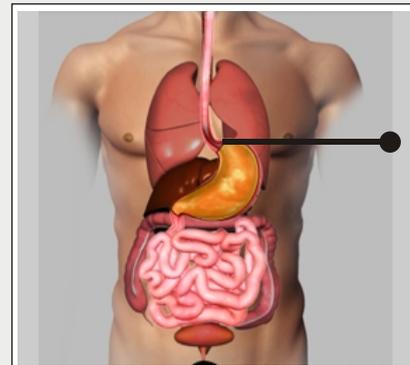
Stomach

The stomach, apart from being a storage organ, secretes acid and other digestive enzymes for digestion of food. There is always some acid in the stomach, which at no time enters the esophagus, not even when lying down. The mucus lining of the inner wall of the stomach prevents the stomach from being digested from its own acid.

(Refer fig.4)

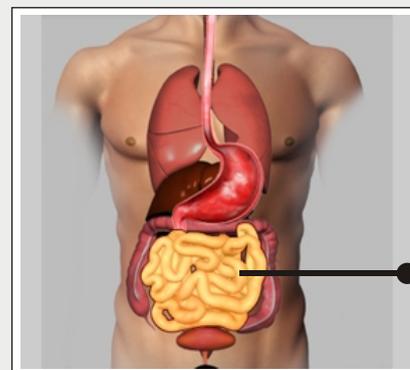
Small Intestine

The small intestine is the site where most of the chemical and mechanical digestion is carried out, and where virtually all of the absorption of useful materials is carried out.



Stomach

(Fig.4)



Small Intestine

(Fig.5)

The whole of the small intestine is lined with an absorptive mucosal type, with certain modifications for each section. The intestine also has a smooth muscle wall with two layers of muscle; rhythmic contractions force products of digestion through the intestine (peristalsis).

There are three main sections to the small intestine;

The duodenum forms a 'C' shape around the head of the pancreas. Its main function is to neutralize the acidic gastric contents (called 'chyme') and to initiate further digestion; Brunner's glands in the sub mucosa secrete alkaline mucus which neutralizes the acidic chyme of stomach and protects the surface of the duodenum.

The jejunum and the ileum are the greatly coiled parts of the small intestine, and together are about 4-6 meters long; the junction between the two sections is not well defined. The mucosa of these sections is highly folded (the folds are called plicae), increasing the surface area available for absorption dramatically.

(Refer fig.5)

What goes wrong?

Common causes of Gastritis include:

- Bacterial infection from helicobacter pylori (H. pylori), one of the most common infections in humans worldwide, is also the same bacteria responsible for the majority of peptic ulcers.
- Prolonged use of non-steroidal anti-inflammatory drugs, NSAID's, such as aspirin, ibuprofen and naproxen sodium.
- Steroid use such as prednisone
- Alcohol abuse
- Cocaine Abuse
- Smoking
- Erosion of the protective layer of the stomach lining

Less common causes can include the following:

- Stress from major surgery or major trauma such as burns
- Chemotherapy or radiation treatments
- Autoimmune disorders such as pernicious anemia
- Chronic Bile Reflux
- Eating or drinking poisonous substances
- Damage to the blood vessels which supply the stomach

How will you feel?

The most common complaint from patients with gastritis is abdominal upset and abdominal pain. Other symptoms can include:

- Nausea and vomiting
- Belching
- Bloating
- Feeling of fullness
- Loss of appetite
- Burning in the upper abdomen
- Diarrhea
- Blood in vomit or stools
- Weight Loss

Please note: Blood in vomit or stools should be reported immediately to your physician or health care provider.

Risk Factors for Gastritis

Risk Factors for developing Gastritis include:

- Regular use of NSAID's
- Lifestyle choices such as smoking and drinking alcohol
- Age: People over 60 are at increased risk due to thinning of the stomach lining associated with aging.
- Race and Nationality: Prevalence is higher in developing countries compared to industrialized countries. African Americans, Hispanics, Asians, and Native American are at higher risk.
- Socioeconomic status: Gastritis is more prevalent among lower income, less educated persons.

Complications of Gastritis

Complications of untreated Gastritis include:

Development of stomach ulcers also referred to as peptic ulcers.

Bleeding in the stomach causing bloody vomit or stools.

Iron deficiency anemia

Gastric and/or duodenal perforation

Gastric outlet obstruction

Low risk of stomach cancer (1%), specifically gastric lymphoma and adenocarcinoma.

Diagnoses

Your doctor will perform the following:

Medical History

Physical Examination

Your doctor may suspect Gastritis based upon your history and exam but may order tests to confirm and determine the cause of the gastritis. Some of these tests may include:

Blood Tests

Blood Tests can determine the presence of H. Pylori antibodies that would indicate exposure to the bacteria in the past, but would not indicate current infection. Blood tests can also be used to check for anemia related to blood loss.

Stool Tests

Stool Tests may be ordered to check for the presence of H. Pylori that, if positive, would indicate current infection. Stool tests can also determine if there is blood in the stools.

Breath Test

Breath Test to determine current infection of H. Pylori bacteria.

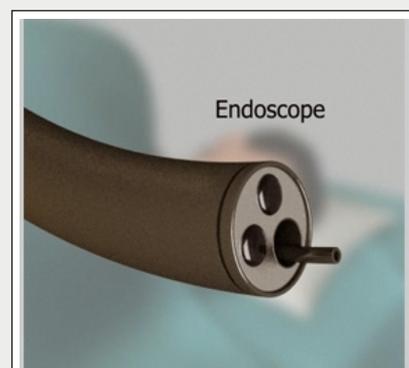
Upper GI X-rays

This test takes pictures of the upper GI tract after the patient swallows a liquid substance called barium which coats the tract allowing x-ray to get a clearer image.

EGD (esophagogastroduodenoscopy)

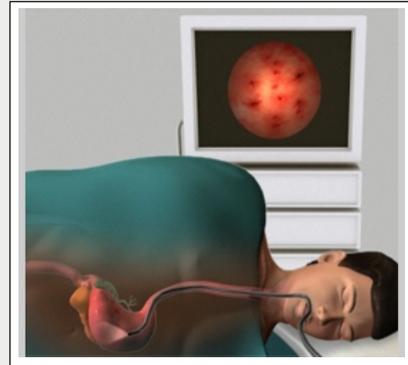
Another test your doctor may want you to undergo is an EGD. In this procedure a doctor passes a thin tube with a camera, called an endoscope, down the esophagus and into the stomach and part of the small intestine. This enables the doctor to assess the stomach lining for redness and inflammation associated with gastritis and/or breaks in the tissue such as with ulcerations.

(Refer fig. 6 to 9)



(Fig.6)

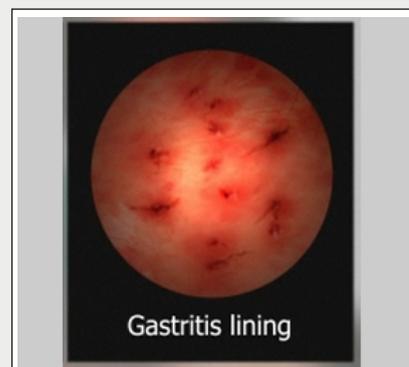
(Refer fig. 6 to 9)



(Fig.7)



(Fig.8)



(Fig.9)

Treatment

Your physician will determine the course of treatment based upon:

- Your age
- Your medical
- Medication tolerance
- Severity of the gastritis

Since stomach acid causes increased irritation of the already inflamed stomach lining, your doctor will prescribe medications to decrease the stomach acid, allowing the stomach lining to heal and the gastritis to resolve.

Treatment

Some of these acid reducing medications include:

Antacids : Over the counter antacids such as Maalox, Mylanta, and Tums are often prescribed to treat gastritis. These medications help to neutralize stomach acid and provide quick pain relief. Proton Pump Inhibitors

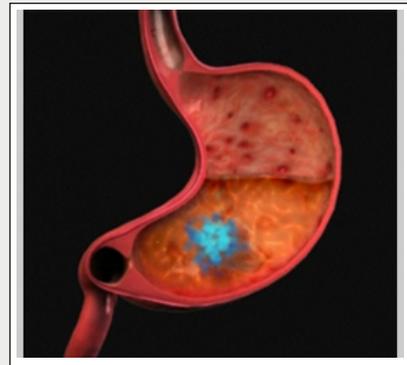
Proton pump inhibitors (PPIs) are a group of prescription medications that prevent the release of acid in the stomach and intestines. Some examples are Prilosec, Nexium and Prevacid.

Antibiotics If your gastritis is caused by an infection, your doctor may prescribe antibiotics to clear up the H. pylori infection. Once the underlying problem disappears, the gastritis usually does too. Talk to your doctor before stopping any medicine or starting any gastritis treatment on your own.

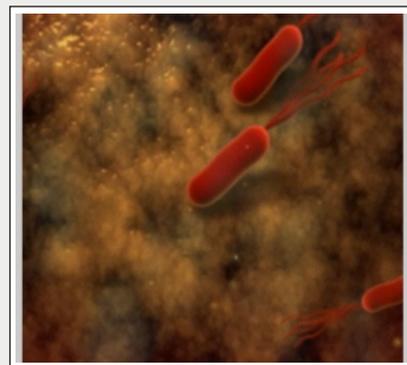
(Refer fig.10 to 13)



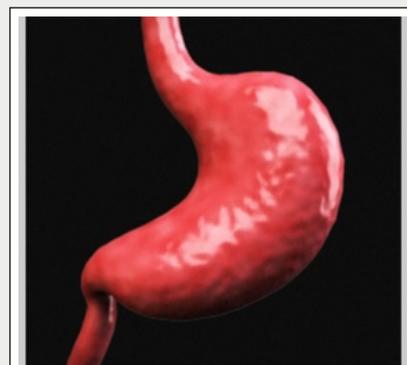
(Fig.10)



(Fig.11)



(Fig.12)



(Fig.13)

Tips for Prevention

Although it is not always possible to prevent exposure to the H. Pylori bacteria, you can reduce your risk of developing gastritis with some of these tips:

- Avoid or limit drinking alcohol that can erode the stomach lining.
- Stop smoking. Smoking causes increased acid production, erosion of stomach lining, and increases your risk of stomach cancer.
- Avoid caffeine during episodes of gastritis as it can increase the pain.

Disclaimer

Although every effort is made to educate you on Gastritis and take control, there will be specific information that will not be discussed. Talk to your doctor or health care provider about any concerns you have about Gastritis.

YOUR SURGERY DATE

READ YOUR BOOK AND MATERIAL

VIEW YOUR VIDEO /CD / DVD / WEBSITE

PRE - HABILITATION

ARRANGE FOR BLOOD

MEDICAL CHECK UP

ADVANCE MEDICAL DIRECTIVE

PRE - ADMISSION TESTING

FAMILY SUPPORT REVIEW

Physician's Name : _____

Patient's Name : _____

Physician's Signature: _____

Patient's Signature: _____

Date : _____

Date : _____