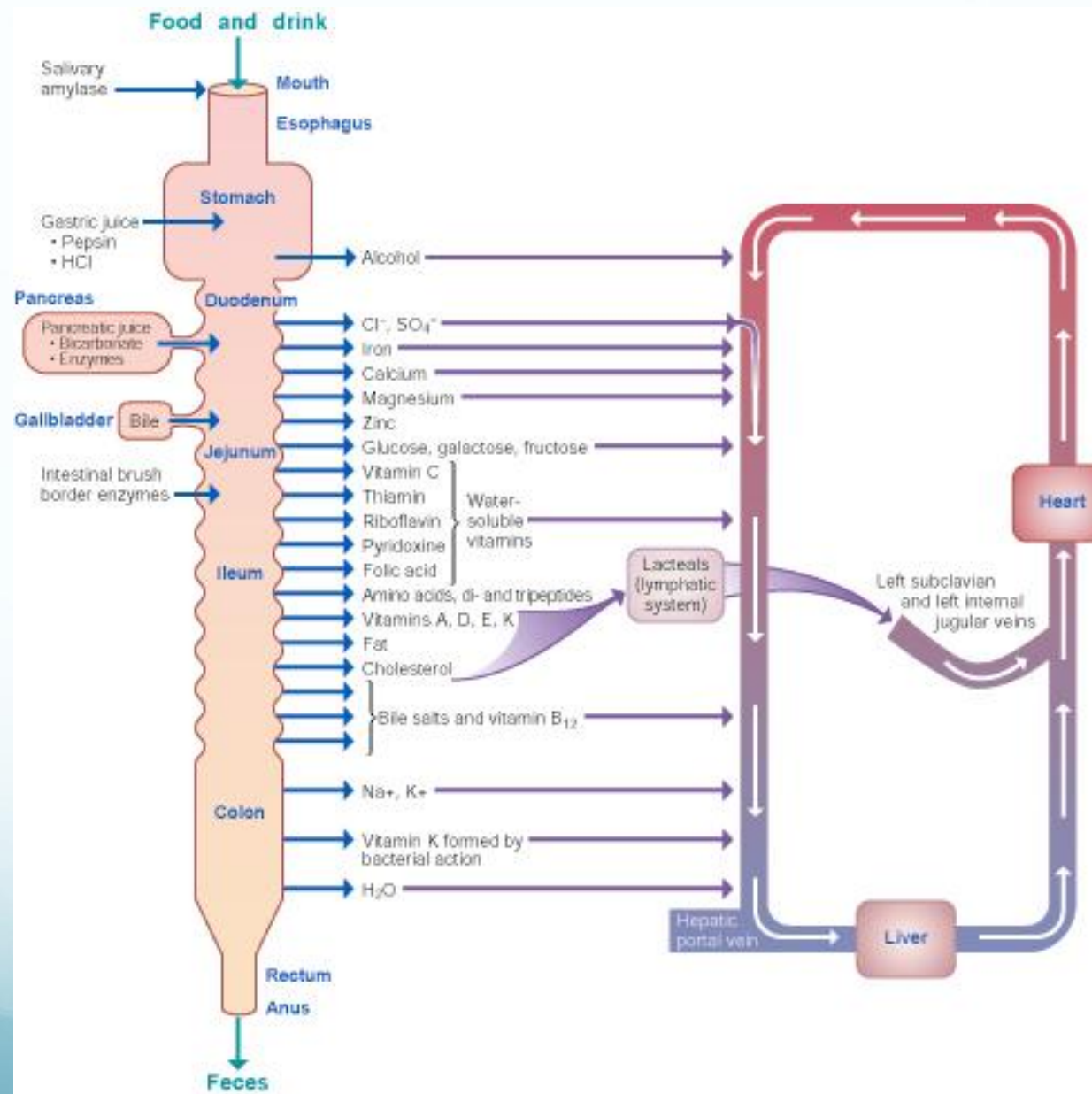


Sites of Secretion and Absorption into Gastrointestinal Tract



Neurotransmitters

- **Alpha-aminobutyric acid**: relaxes LES
- **Norepinephrine**: decreases motility, increases contractions of sphincters, inhibits secretions
- **Acetylcholine**: increases motility, relaxes sphincters, stimulates secretions
- **Neurotensin**: inhibits release of gastric emptying and acid secretion
- **Neuropeptide-Y**: stimulates feeding behavior

Hormones and GI Function: Gastrin

- Released from gastric mucosa and duodenum in presence of peptides and amino acids;
- stimulates **secretion of hydrochloric acid** and pepsinogen;
- **increases gastric antral motility**, increases LES tone

Hormones and GI function: Secretin

- **Secretin:** from duodenal mucosa in presence of acid in small intestine;
- **stimulates pancreas** to secrete water and bicarb; also insulin and pancreatic enzymes

Hormones and GI function: Cholecystokinin (CCK)

- Released from proximal small bowel in presence of peptides, amino acids, fat, HCL, stimulates pancreas to release pancreatic enzymes

Hormones and GI function: Gastric Inhibitory Polypeptide (GIP)

- Released from small intestine in presence of glucose and fat.
- inhibits gastrin-stimulated release of gastric acid

Hormones and GI Function (Motilin)

- Released from stomach and small and large intestine in presence of biliary and pancreatic secretions;
- promotes gastric emptying and increases GI motility

Hormones and GI function: Somatostatin

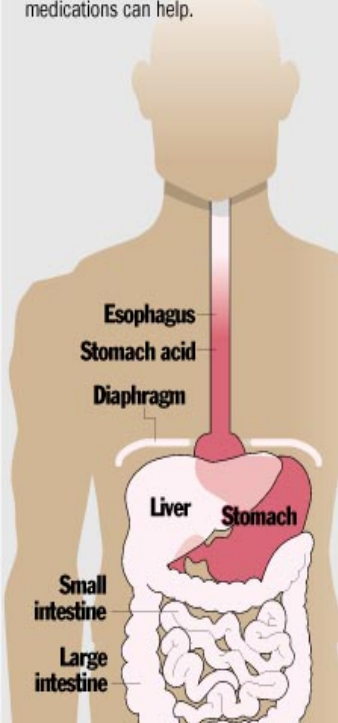
- **Released from stomach**, pancreas, and upper small intestine in presence of acidity and products of protein and fat digestion.
- Inhibits release of gastrin, motilin, and pancreatic secretions; decreases motility of GI tract

Heartburn

- Acid Reflux
- **Symp**- burning sensation
- avoid chocolate and peppermint, coffee, citrus, fried or fatty foods, tomato products – stop smoking– take antacids – don't lay down 2-3 hours after eating.
- When small quantities of stomach acid are regurgitated into the esophagus

Heartburn remedies

Some cases of heartburn are the result of a stomach disorder called gastroesophageal reflux disease, which forces stomach acid to travel backward and into the throat. Some cases are so bad they're correctable only by surgery, but medications can help.



Types of relief

Remedies for heartburn and Gastroesophageal Reflux Disease (GERD) fall into five basic classes:

- Antacids:** (Tums, Alka-Seltzer, Milk of Magnesia, Maalox, etc.). These medications, which contain sodium bicarbonate, calcium, magnesium, aluminum or a combination, use basic chemical reactions to neutralize existing stomach acid.
- Sodium alginate or alginic acid with other antacid ingredients:** (Gaviscon). This type of medication produces a foam barrier between the stomach and the esophagus to prevent acid from back-flowing into the esophagus.
- Promotility or prokinetic agents:** (metoclopramide). This helps strengthen the valve that blocks acid from entering the esophagus by causing muscles in the upper intestinal tract to contract, resulting in a faster emptying of the stomach.
- H2 blockers or histamine receptor antagonists:** (Peppid AC, Tagamet HB, Axid AR, Zantac 75). These partially block the production of acid in stomach cells by inhibiting histamine, which stimulates the secretion of stomach acid.
- Proton pump inhibitors or acid pump inhibitors:** (Prilosec, Prevacid, rabeprazole, pantoprazole). The newest development, these inhibit stomach acid production by deactivating the acid pumps (the site where stomach acid is produced) in stomach cells.

Jennifer Novicko, Gannett News Service


Gastroenteritis

- Inflammation of mucous membrane lining of stomach and intestine
- Common cause = Virus
- Symps – diarrhea and vomiting for 24-36 hours
- Complication = dehydration

Información general



Definición
También denominada gripe estomacal, la gastroenteritis es una infección e inflamación del tracto intestinal que puede causar alteraciones más o menos serias. La infección puede contraerse por contacto con otra persona afectada o por ingerir alimentos o agua en mal estado.

Zonas más afectadas




Estómago, intestino delgado y colon.

Individuos más afectados por edad y sexo



1 / 5
60 / ...

Pérdida del apetito, fiebre, dolor de cabeza




Debilidad


Náuseas, vómitos

Diarrea, dolor y calambres abdominales

Síntomas entre 10 y 24 horas después de la ingestión



Recuperación entre 4 y 5 días

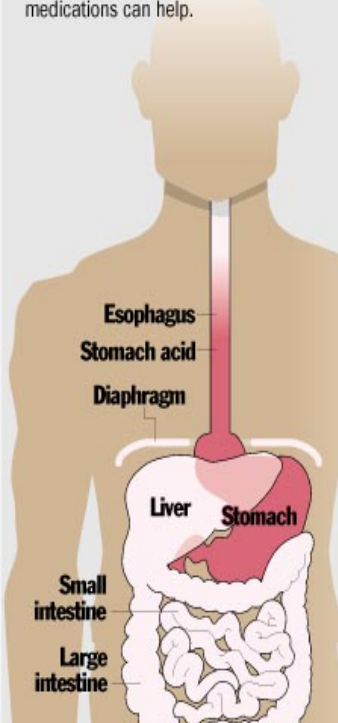


Gastroenteritis

- Inflammation of mucous membrane lining of stomach and intestine
- Common cause = Virus
- Symps – diarrhoea and vomiting for 24-36 hours
- Complication = dehydration

Heartburn remedies

Some cases of heartburn are the result of a stomach disorder called gastroesophageal reflux disease, which forces stomach acid to travel backward and into the throat. Some cases are so bad they're correctable only by surgery, but medications can help.



Types of relief

Remedies for heartburn and Gastroesophageal Reflux Disease (GERD) fall into five basic classes:

- Antacids:** (Tums, Alka-Seltzer, Milk of Magnesia, Maalox, etc.). These medications, which contain sodium bicarbonate, calcium, magnesium, aluminum or a combination, use basic chemical reactions to neutralize existing stomach acid.
- Sodium alginate or alginic acid with other antacid ingredients:** (Gaviscon). This type of medication produces a foam barrier between the stomach and the esophagus to prevent acid from back-flowing into the esophagus.
- Promotility or prokinetic agents:** (metoclopramide). This helps strengthen the valve that blocks acid from entering the esophagus by causing muscles in the upper intestinal tract to contract, resulting in a faster emptying of the stomach.
- H2 blockers or histamine receptor antagonists:** (Pepcid AC, Tagamet HB, Axid AR, Zantac 75). These partially block the production of acid in stomach cells by inhibiting histamine, which stimulates the secretion of stomach acid.
- Proton pump inhibitors or acid pump inhibitors:** (Prilosec, Prevacid, rabeprazole, pantoprazole). The newest development, these inhibit stomach acid production by deactivating the acid pumps (the site where stomach acid is produced) in stomach cells.

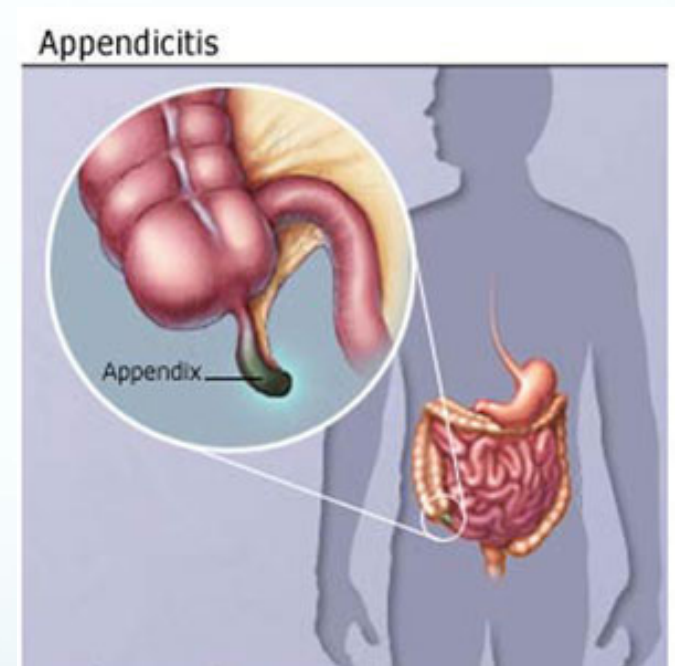
Jennifer Novicko, Gannett News Service

Ulcer

- **Sore or lesion that forms in the mucosal lining of the stomach**
- Gastric ulcers in the stomach and duodenal ulcer in the duodenum
- Cause – *H. pylori* (bacteria) is primary cause
- Lifestyle factors that contribute: cigarette smoking, alcohol, stress, certain drugs.
- Symp – burning pain in abdomen, between meals and early morning, may be relieved by eating or taking antacids.
- Diagnosis – x-ray, presence of bacteria
- Rx – H₂ blockers (drugs) that block release of histamine

Appendicitis

- A blind sac attached to the cecum and has no known function.
- When appendix becomes inflamed
- If it ruptures, bacteria from appendix can spread to peritoneal cavity.
- Symptoms- RLQ pain, rebound tenderness, fever, nausea, and vomiting
- RX - appendectomy



Diarrhea

Loose, watery, frequent bowel movements when feces pass along colon to rapidly

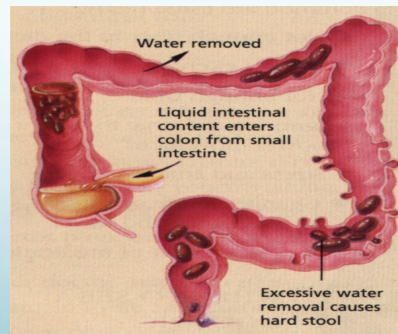
Caused by infection, poor diet, nervousness, toxic substances or irritants in food



Constipation

When defecation delayed, feces becomes dry and hard

RX –diet with cereals, fruits, vegetables, (roughage) drinking plenty of fluids, exercise, and avoiding tension



Jaundice

Yellow color of the skin

