



## Gastroparesis

By: Frank Friedenberg, M.D. and Henry Parkman, M.D., Temple University School of Medicine, Philadelphia, PA

Gastroparesis is a disorder in which the stomach empties very slowly. The delay in stomach emptying can result in bothersome symptoms that interfere with a patient's life. Gastroparesis most often occurs when the nerves to the stomach are damaged or don't work properly. Diabetes is the most common cause of gastroparesis. Gastroparesis can also occur after stomach surgery for other conditions. Other causes of gastroparesis include Parkinson's disease and some medications, especially narcotic pain medications. In many patients a cause of the gastroparesis cannot be found and the disorder is termed *idiopathic* gastroparesis. Over the last several years, as more is being found out about gastroparesis, it has become clear this condition affects many people and the condition can cause a wide range of symptoms of differing severity.

### Symptoms of Gastroparesis

The symptoms of gastroparesis most often occur during and after eating a meal. Symptoms may include:

- Feeling of fullness after only a few bites of food
- Nausea and/or vomiting
- Vague stomach pain
- Weight loss due to a decreased appetite

Symptoms may range from none to severe. A person with diabetic gastroparesis may have episodes of high and low blood sugar levels due to the unpredictable emptying of food from the stomach. Gastroparesis may be suspected in a person with diabetes who has blood sugar levels that become increasingly difficult to control.

### Tests for Gastroparesis

The diagnosis of gastroparesis is confirmed with two types of tests. The first test is performed to make sure there is not an ulcer or an obstruction. This test could be an upper endoscopy where the doctor looks into the stomach with a flexible scope. Alternatively, this test could be an upper gastrointestinal series in which the patient drinks barium that outlines the stomach on an x-ray. The second test is one that actually measures how quickly food leaves the stomach. Most commonly, this test is a radioisotope gastric emptying scan. For this test, one eats food containing a small amount of a radioactive substance. The radioactivity in the body and particularly in the stomach can be imaged, allowing a doctor to see how quickly the meal leaves the stomach.

### Treatment of Symptoms

Treatment of gastroparesis depends on the severity of the symptoms. Dietary changes may be helpful and include eating several small meals each day rather than three large meals. The meals should be low in fiber, fat, and roughage. Liquids are often better handled than solid food in patients with gastroparesis. For diabetic patients, controlling blood sugar levels may decrease symptoms of gastroparesis. [Ask your doctor or a registered dietician for dietary guidelines.]

Symptoms of gastroparesis may improve with treatment using medications prescribed by a doctor. When considering any medication, let your doctor know about all other drugs or supplements you are taking, both prescription and over-the-counter.

Some medications help the stomach empty more quickly (pro-motility agents). One pro-motility agent is metoclopramide (Reglan), although this drug is

often associated with side effects that limit its use. Be sure to talk to your doctor about alternative treatments and known risks as well as the intended benefit if considering treatment with Reglan. With any drug it is important to be aware of the risks and expected benefit, understand how to recognize possible side effects, and know what to do if side effects occur.

Erythromycin is an antibiotic that can also speed up stomach emptying. Another pro-motility agent, domperidone, has been used in countries outside of the U.S to treat gastroparesis. While not approved by the Food and Drug Administration (FDA) in the U.S., if needed, domperidone can now be obtained through a doctor by special arrangements from the FDA. Another treatment approach is to use medications which decrease symptoms of nausea and vomiting (antiemetic agents). These agents include prochlorperazine (Compazine) and trimethobenzamide (Tigan).

In very severe cases, generally with weight loss, a feeding tube is placed in the small intestine to provide nutrition in a way that avoids the stomach. Newer treatments that are still being evaluated include injection of botulinum toxin (Botox) into the pylorus muscle at the end of the stomach where contents pass into the small intestine. This can relax the pylorus and increase stomach emptying. Gastric electric stimulation using a pacemaker (a surgically implanted battery operated device) on the stomach may be used in some cases where all types of medications fail to adequately control the symptoms of nausea and vomiting.

Persons who experience symptoms of gastroparesis should talk to their doctor to find out what is wrong. If gastroparesis is diagnosed, the doctor can work with the patient to develop a treatment plan best suited for individual circumstances.

## February 26, 2009: FDA Requires Boxed Warning and Risk Mitigation Strategy for Metoclopramide-Containing Drugs

**Adverse events:** Frequent and long-term use of metoclopramide has been linked to tardive dyskinesia, a disorder that causes uncontrollable, repetitive movements of the body such as lip smacking, grimacing, tongue protrusion, puckering and pursing of the lips, rapid eye movements or blinking, and rapid movements of the fingers, arms, legs, and trunk.

**People at risk:** Those at greatest risk include elderly people, especially older women, and people who have been on the drug for a long time.

**Recommendations:** Talk to your doctor before you use metoclopramide. Avoid using the drug for a long time in all but rare cases where you and your doctor decide that the benefits outweigh the risks.

### Suggested IFFGD Reading

Whitehead, W. *Gastrointestinal Motility Disorders of the Esophagus and Stomach*. IFFGD. Fact Sheet No. 510.

Rees Parrish, C., Soffer, E., Parkman, H. *Dietary and Nutritional Recommendations for Patients with Gastroparesis*. IFFGD. Fact Sheet No. 537.

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