



GPDA:

Chronic Debilitating Nausea: There is Hope! There is Help!

GPDA

GPDA-USA

We are a North American based Non-profit association

Canadian charitable number: 859541310RR0001
 IRS tax number: 20-1778790

How does a dysmotility of the stomach cause chronic nausea? Why do I have nausea?

(To understand gastroparesis and the term, "dysmotility", please see our pamphlet, "Gastroparesis".)

Your stomach, like your heart, has a rhythm of activity. Your stomach even has a "pacemaker" region to help modulate its rhythmic, muscular, pumping action. This overall pumping action (peristalsis) of your stomach and digestive tract is called **motility**.

With gastroparesis, for whatever reason, your stomach's rhythm and motility may become disrupted and weakened. What was once functioning normally and outside your conscious awareness has now become "ill". Suddenly, the dysfunctioning of your stomach comes to the forefront of your thoughts with nausea!

Individuals do not have to have gastroparesis in order to suffer with nausea; but nausea is the most frequent symptom of gastroparesis and can occur in its most intense and chronic nature compared to all other causes. This intensity can lead to uncontrolled bouts of vomiting, food avoidance, and for some patients, declining weight and malnourishment.

Nausea is found in association with many other upper digestive symptoms such as: heartburn or acid reflux, bloating, belching, and a feeling of fullness soon after eating. Doctors generally label this collection of symptoms as "motility-like" symptoms.

Nausea can also be found in association with other digestive and non-digestive diseases. It is important to have a thorough evaluation by a GI specialist; and this specialist should include testing to look for abnormal motility in your stomach. Motility testing often includes:

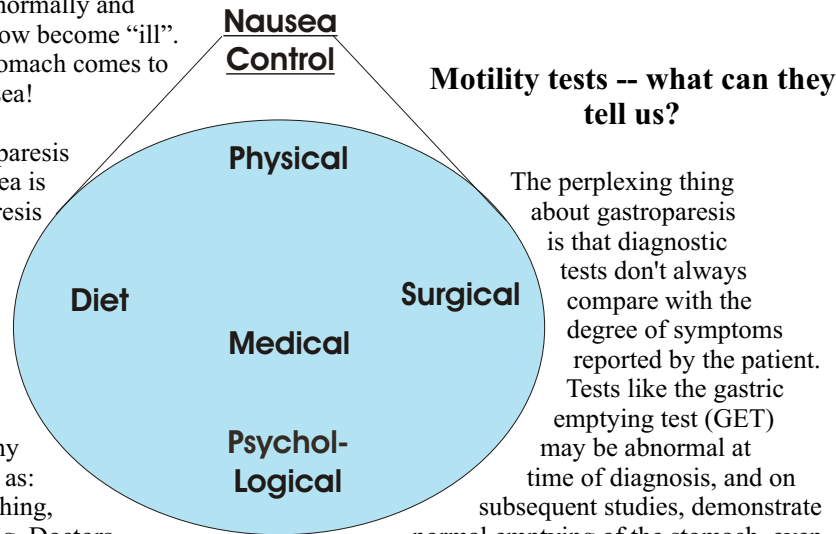
- ~ Gastric Emptying Test
- ~ Electrogastrography (EGG)
- ~ Gastroduodenal Manometry

Caution: If one or more of the motility tests above have not been performed and you are dismissed by your specialist with an explanation that your symptoms are psychologically mediated, then you need to seek a second opinion.

No one knows nausea better than those who suffer from digestive motility diseases such as gastroparesis since it is their most common complaint and can occur to a debilitating degree. Gastroparesis represents a more severe form of digestive motility problems.

Some gastroenterologists who specialize in motility disorders speculate that nausea may be generated by altered stomach rhythms (dysrhythmias). These disrupted rhythms are relayed to your central nervous system (CNS) by the major nerve of the gut the vagus nerve. The brain interprets these signals as nausea. Besides dysrhythmias, overall stomach action may be hampered in a number of different ways, making for a complex motor malfunction. Groups like the American Motility Society have scientists pursuing this area of research.

Nausea Control



The perplexing thing about gastroparesis is that diagnostic tests don't always compare with the degree of symptoms reported by the patient. Tests like the gastric emptying test (GET) may be abnormal at time of diagnosis, and on subsequent studies, demonstrate normal emptying of the stomach even though the patient is debilitated with nausea! A further test can sometimes help to highlight what is going on; called electrogastrography (EGG), this study can detect abnormal stomach rhythms just as electrocardiograms reveal heart dysrhythmias. Yet the EGG is more of a screening tool than a diagnostic tool and may help to clarify the problem.

Nausea Relief

The relief of nausea remains a big challenge. Chronic nausea is often underestimated and under-treated by the medical community. The situation is even harder for children who suffer with debilitating nausea. Unfortunately, children and adolescents who miss weeks

or months of school are not taken as seriously as adults who lose time from work. For this age group, many doctors are quick to ascribe this symptom to stress.

Variability between test results and the patient's report regarding symptom severity can increase everyone's frustration. More research is needed to understand better the underlying causes of nausea. Our patient community is in need of more medical treatments tailored specifically for us. Don't allow your suffering to be minimized, but also understand that, because this area of medicine has been underfunded, specialists lack tools and training to provide you with better medical guidance. A good patient-doctor relationship is essential for dealing with this unrelenting symptom. A compassionate medical team goes a long way in helping you with symptom management.

Control measures

As the diagram shows, control measures are aimed at five primary areas; each one will be discussed.

Diet modification is the beginning point and can play a large role in helping to tame this symptom. For more detailed information on diet, please see our information pamphlet, "Gastroparesis". Generally, a diet should be easily digestible as well as low in fat and fiber. Coffee, spices, and alcohol should be avoided, and if you smoke, you must stop! Small, frequent meals with thorough chewing are important. Late-evening snacks are generally to be avoided. An easy walk after eating may be helpful.

General Tips

- When nausea is particularly intense, switch for several days to a liquid, low-fat meal supplement.
- Watch out for some herbal remedies. They can actually increase nausea because they increase refluxing, which is the washing up of stomach acid into your throat that results in heartburn. Peppermint can greatly increase refluxing. For some people, ginger, too, can increase nausea.
- Try chewing or sucking on a licorice root stick (available in health food stores).
- Try tart flavors such as a slice of Granny Smith

apple.

- Try sucking on hard candies. Sweet flavors help to cut the nausea.
- When nausea is very intense, some relief may be found by sucking on ice cubes, or try ice cubes made from fennel tea.
- If your nausea is actually improved after a small snack such as crackers, then it would be advised to have this before retiring in the night.

Medical treatment of nausea for people with gastroparesis poses a real challenge. Medications may have mixed results. Prolonged use of some medicines may show a waning of effectiveness. Altering medication regimes, then revisiting old regimes may be beneficial.

Promotility medications that help to re-establish the motility of the stomach may help to combat nausea since some promotility drugs are also anti-nauseants. However, these are usually only partially effective.

Acid-suppression medication may also play a very helpful role in nausea control and preclude the need for prescription anti-nauseant medications. Discuss this with your doctor.

For more severe nausea, specific medications called anti-nauseants may be required, and often two different pharmacological classes of anti-nauseants may need to be prescribed. Taken in combination, these drugs help to combat episodes of debilitating nausea or nausea that can build to a crescendo of vomiting. Your doctor may actually advise you to take your anti-nauseant medications on a regular schedule instead of on an as-needed basis.

When possible, try to get medications in either a liquid or sub-lingual (under the tongue) preparation since these are absorbed better by people with delayed gastric emptying (gastroparesis).

Have a back-up of medications for use rectally if vomiting ensues.

Some medications can also be taken by Sub-Q injection (like a diabetic needle), which helps to regain control of vomiting episodes.

Pharmacological classes of drugs:

Examples of pharmacological drugs are given here; however, this is not an exhaustive list. Be aware that some of the older classes of drugs such as the tricyclic anti-drepressants, phenothiazine agents, and Reglan, may be associated with significant and frequent side effects. Be sure to discuss this with your doctor. Newer medications that are used to control chemotherapy-induced nausea and vomiting are excellent choices; yet, these are very expensive.

The anti-histamines:

Diphenhydramine (Benadryl)
Dimenhydrinate (Dramamine)
Meclizine (Antivert)
Hydroxyzine (Vistaril)
Trimethobenzamide (Tigan)
Doxylamine (Diclectin) only *available in Canada*
Cyproheptadine (Periactin)

Serotonin (5HT3) antagonists:

Ondansetron (Zofran)
Granisetron (Kytril)
Palonosetron (Aloxi)
Dolasetron (Anzemet)

(NK1) antagonist:

Aprepitant (Emend)

Dopamine antagonists:

Domperidone (Motilium)* available in Canada.
Metoclopramide (Reglan/Maxeran)*, *Side effects are frequently reported.*

Phenothiazine class:

Prochlorperazine (Compazine)
Promethazine hydrochloride (Phenergan)

Cannabinoid agent:

Dronabinol (Marinol)

Anti-anxiety agent:

Lorazepam (Ativan)

Low dose, Tricyclic Antidepressants (TCA)

Nortriptyline (Pamelor, Aventyl)
Amitriptyline (Elavil)

* (Also act as pro-motility medications)

A popular combination of anti-nauseants used by some GI specialists who specialize in motility diseases like gastroparesis is “ZAP” (Zofran and Phenergan). Both come in a liquid and intravenous preparation.

Physical measures to help control nausea may be as simple as avoiding hot rooms and opening a bedroom window for fresh air; the avoidance of hot baths is also suggested since they can often trigger a bout of nausea. If possible, avoid strong emotions; your emotions do not cause your nausea, but they certainly modulate the symptom. Excitement can actually diminish your symptoms, only to have your nausea rebound with even greater intensity hours after all the excitement. This holds true for physical activity as well. Try slow, deep breathing in cycles of 10 breaths with normal breathing interspersed. This can help you get through a severe wave of nausea with impending vomiting. Try raising the head of your bed six inches with books placed under the bed legs, and only wear loose-fitting clothing.

Autonomic Retraining is biofeedback with guided imagery is a method used to treat motion sickness experienced by astronauts in space. This approach is now being applied to help control severe nausea in upper digestive motility diseases like gastroparesis.

Surgical intervention in the form of an implantable device is revolutionizing the treatment of severe nausea and vomiting of gastroparesis. Called “**Enterra Therapy**”, this device (similar in appearance to a heart pacemaker) for many patients, significantly reduces or halts nausea and vomiting. Your specialist can determine if you are a candidate for Enterra Therapy. Also, a method of temporary gastric electrical stimulation is used by some centers to help evaluate who is a good candidate for a permanent device.

Botox injections into the lower valve (pylorus) of the stomach may provide temporary relief of nausea for a period of from three to nine months. Another method that works on the same principle is a **dilation of the pylorus** with a balloon. A few specialized centers provide this technique.

Acupuncture/Acupressure are two well-known methods for controlling nausea. Pressure or massage applied to key points on the wrist can help with short-term alleviation of nausea.

Psychological impact and interventions;

Constant, chronic nausea has a major impact on your life and can lead to debilitating spells of depression. This depression is often the consequence of poor nourishment, disrupted sleep patterns, added financial burden, and frequent and discouraging disruption of social and work/school events.

Nausea may leave individuals housebound for extended periods, affecting their interaction with others. Fear of food may also be a problem since overwhelming waves of nausea triggered an hour or more after eating may build to an episode of vomiting, or the patient may be left in intense nausea limbo just wishing for the some relief an episode of vomiting would bring.

Vomiting is recognizable as a serious problem. However, it is the exhaustion of unrelenting, “hidden” nausea that takes its toll emotionally and spiritually. The severity of such debilitating nausea is underestimated by the public at large since it is hard for even family and friends to comprehend this endless cycle.

Psychological treatments are varied and can be an adjunct to the medical management of nausea. Techniques such as visual imagery, deep breathing and relaxation, or biofeedback can be of benefit.

Finding the right psychologist is valuable and (s)he should be an integral part of your medical care team.

Your psychologist should play a supportive role. But caution: if you find yourself uncomfortable or perceive that the psychologist has adopted an exclusive approach of “fixing the problem in your head” to fix your nausea, you may need to find another psychologist.

Finally, patient-support groups help tremendously. Ask your doctor’s nurse for assistance to see if (s)he can help you organize a meeting.

Also, on-line support groups are available. See: <http://groups.yahoo.com/search?query=gastroparesis>

As well, an on-line forum is available on our GPDA web site.

