Chronic Nausea and Vomiting are common, debilitating conditions in children and adolescents. These conditions can lead to significant functional disability and psychological comorbidities such as anxiety and depression.

Chronic nausea and vomiting can be associated with (but are not limited to):
- Cyclic vomiting syndrome (episodic)
- Rumination
- Functional dyspepsia—postprandial distress sub-type
- Functional nausea and functional vomiting
- Gastroparesis

ASSESSMENT
Perform a detailed history and thorough physical exam with specific questions about red flags (listed below), extra-intestinal comorbidities, family history, and situational and dietary history especially restricting intake. Certain tests may help aid in diagnosis. These include:
- Upper Gastrointestinal Series
- Four-hour solid gastric emptying scan
- Esophageal manometry
- Abdominal ultrasound
- 24 hour ph-impedance
- Lab tests: C-reactive protein, sedimentation rate, lipase, fecal calprotectin, TTG IgA, anemia, hyperglycemia, urine toxicology screen

Consider ruling out intra-cranial pathology via brain imaging (CT/MRI), especially in the absence of abdominal pain.

HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS
- Unintentional weight loss or slowed growth
- Accompanying focal abdominal pain
- Unrelenting or early-morning headaches that improve with vomiting
- Unexplained fever
- Dysphagia or odynophagia
- Nocturnal diarrhea
- GI blood loss
- Arthritis
- Mouth sores
- Binging or purging
- Body dysmorphism
- Delayed puberty
- Inflamed perianal skin tags or fissures
- Urinary issues, concern for Dietl’s crisis (related to ureteropelvic junction obstruction)
- Pain or bleeding with urination
- Menstrual irregularities
- Bradycardia, orthostatic instability
- Family history of inflammatory bowel disease, celiac disease, autoimmune disorders or peptic ulcer disease

MANAGEMENT/TREATMENT
Management/treatment should be personalized, with a goal to improve functioning. It should follow an inter-disciplinary approach with a focus on behavioral and dietary interventions. Strategies can be pharmacologic, non-pharmacologic or dietary. See algorithm on next page for a comprehensive list of management/treatment options.

For more Information, contact Robin Garrett, Neurogastroenterology/Motility Program Coordinator, at 513-517-1122 or email at Robin.Garrett@cchmc.org

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children’s.
Chronic Nausea and Vomiting

### Inclusion Criteria
Children ages 4 years to 18 years experiencing chronic nausea or vomiting. This includes but is not limited to:
- Cyclic vomiting syndrome
- Rumination
- Functional dyspepsia—postprandial distress sub-type
- Functional nausea and vomiting
- Gastroparesis

### Standard Workup
- **Patient Presents**
  - Situational History
  - Family History
  - Physical History
  - Dietary History

### HPE (History and Physical Exam) Red Flags
- Unintentional weight loss or slowed growth
- Accompanying focal abdominal pain
- Unremitting or early-morning headaches that improve with vomiting
- Unexplained fever
- Dysphagia or odynophagia
- Chronic or nocturnal diarrhea
- Arthritis
- GI blood loss
- Mouth sores
- Delayed puberty
- Inflamed perianal skin tags or fissures
- Pain or bleeding with urination
- Menstrual irregularities
- Urinary issues, concern for Dietl’s crisis (related to ureteropelvic junction obstruction)
- Bradycardia, orthostatic instability
- Body dysmorphism
- Binging or purging
- Family history of inflammatory bowel disease, celiac disease or autoimmune disorders
- Elevated C-reactive protein, sedimentation rate, lipase, fecal calprotectin, TTG IgA, anemia, hyperglycemia, urine toxicology screen

### Pharmacologic
- 2 week proton pump inhibitor trial
- Cyproheptadine 2–4 mg BID-TID
- Mirtazapine 7.5–15 mg qHS
- Amitriptyline 10–50 mg daily, start with 10 mg, increase in 1 week to 20 mg qHS (consider EKG prior to starting)
- Ondansteron 4–8 mg qHS
- Promethazine 6.25–25 mg prn
- Diphenhydramine 12.5–50 mg prn
- Scopolamine q72 hrs

### Non Pharmacologic
- Behavioral medicine (CBT, gut-directed hypnotherapy, nausea coping skills, mindfulness, biofeedback)
- Refer for Neuromodulation, gastric electrical stimulation
- Integrated medicine (yoga, acupuncture, massage therapy, energy therapy, aromatherapy)
- Physical therapy
- Osteopathic manipulation

### Dietary**
- Small, frequent meals, low-residue, low-fat foods
- Use of nutrient drinks to maintain weight
- Avoidance of simple sugars or artificial sweeteners
- Avoidance of specific food triggers (identify through a food diary)
- FDgard
- Ginger

** Screen for possible eating disorder prior to recommending diet restrictions

### Evaluate Further

#### Any Red Flags?
- Yes
  - Make a positive diagnosis and initiate therapy
- No
  - Follow-up every 3–6 months

### Office Follow-up 1–2 months
- Improved Functioning and/or Symptom Reduction?
- Yes
- No
- Consider using Physician Priority Line for advice or referral to GI if treatment is not effective

For urgent issues, or to speak with the specialist on call 24/7, call the Physician Priority Link® at 1-888-987-7997.