Functional Abdominal Pain

Functional abdominal pain disorders (FAPDs) are a subset of Disorders of Gut-Brain Interaction (DGBI) that stem from complex interactions of various biopsychosocial factors affecting the gut-brain axis. They vary in susceptible individuals and are associated with functional disability, impaired quality of life, psychological comorbidities such as anxiety and depression, and social and academic difficulties. These disorders also pose a significant healthcare cost burden.

ASSESSMENT
Perform a detailed, thorough history and physical exam (HPE) with limited, purposeful evaluation. Pay close attention to duration, location, character and timing of pain, aggravating/alleviating factors, and stooling patterns. The presence of red flags (below) help determine the need for a more comprehensive workup. Strive to make a positive diagnosis (versus one of exclusion) to prepare your patient for diagnostic and therapeutic success.

HPE RED FLAGS
- Unintentional weight loss
- Slowed growth
- Pain that awakens
- Persistent vomiting
- Persistent focal pain
- Unexplained fever
- Dysphagia or odynophagia
- Nocturnal diarrhea
- GI blood loss
- Arthritis
- Mouth sores
- Delayed puberty
- Inflamed perianal skin tags or fissures
- Pain or bleeding with urination
- Menstrual irregularities
- Bradycardia, orthostatic instability
- Family history of inflammatory bowel disease, celiac disease, autoimmune disorders, or peptic ulcer disease
- Elevated C-reactive protein, sedimentation rate, fecal calprotectin, TTG IgA, lipase, anemia

WHEN TO REFER
If red flags are present (see right column) at HPE, or if abdominal pain does not improve after initial treatment, refer to Cincinnati Children’s Gastroenterology.

MANAGEMENT/TREATMENT
Follow a personalized, interdisciplinary approach and focus on improving functioning.

Pharmacologic
- Avoid multiple neuromodulators—consider psychiatry referral as needed for behavioral issues
- Consider a one-month trial for any medication prescribed, in order to evaluate for response
- Amitriptyline 10–50 mg daily (confirm no suicidal ideation and consider EKG before starting)—begin with 10 mg qHS, increase by 10 mg qweek for every 10 kg up to 50 mg. Use lowest effective dose. Ramp up or wean slowly.
- Cyproheptadine 2–4 mg BID–TID
- Hyoscyamine 0.125 mg–0.25 mg QID PRN
- Dicyclomine 10–20 mg TID PRN

Non-pharmacologic
- Behavioral: cognitive behavioral therapy, gut-directed hypnotherapy, pain coping skills, mindfulness, biofeedback
- Probiotics
- Neuromodulation
- Integrative medicine: yoga, acupuncture, massage therapy, energy therapy, aromatherapy
- Osteopathic medicine
- Physical therapy

Dietary
- Low FODMAP diet (For low FODMAP diet details, go to gi.org/topics/low-fodmap-diet)
- Avoid simple sugars, artificial sweeteners
- Avoid specific food triggers—identify through a food diary

If you have clinical questions about a patient with an FAPD, call the Physician Priority Link at 513-636-7997 or 888-636-7997.

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.
Functional Abdominal Pain

Inclusion Criteria
Patients between the ages of 4–21 years experiencing chronic abdominal pain conditions include: irritable bowel syndrome (IBS), functional dyspepsia and its subtypes (epigastric pain syndrome and postprandial distress syndrome), abdominal migraine, and functional abdominal pain-not otherwise specified.

Patient Presents

Standard Workup

- Developmental and Behavioral History
- Family History
- Physical Exam
- Dietary History

HPE RED FLAGS

- Unintentional weight loss or slowed growth
- Pain that awakens the child
- Persistent vomiting, constipation, or bloating
- Persistent focal pain
- Unexplained fever
- Dysphagia or odynophagia
- Chronic or Nocturnal diarrhea
- GI blood loss
- Mouth sores, arthritis
- Delayed puberty
- Inflamed perianal skin tags or fissures
- Pain or bleeding with urination
- Menstrual irregularities
- Bradycardia, orthostatic instability
- Family h/o of inflammatory bowel disease, celiac disease, or autoimmune disorders
- Elevated C- Reactive Protein, sedimentation rate, fecal calprotectin, tissue transglutaminase IgA, anemia, lipase

Evaluate Further

Any Red Flags?

Yes

No

Make a positive diagnosis and Initiate therapy

Pharmacologic

- Amitriptyline 10–50 mg daily (confirm no suicidal ideation and consider EKG before starting)—begin with 10 mg qHS, increase by 10 mg qweek for every 10 kg up to 50 mg. Use lowest effective dose. Ramp up or wean slowly.
- Cyproheptadine 2–4 mg BID-TID
- Hyoscyamine 0.125–0.25 mg QID PRN
- Dicyclomine 10–20 mg TID PRN

Non Pharmacologic

- Behavioral Medicine (CBT, Hypnotherapy, Pain coping skills, Mindfulness, Biofeedback)
- Refer for Neuromodulation
- Integrative Medicine (Yoga, Acupuncture, Massage Therapy, Energy Therapy, Aromatherapy)
- Physical Therapy
- Osteopathic Manipulation

Dietary

- Low FODMAP Diet (For low FODMAP diet details, go to gi.org/topics/low-fodmap-diet)
- Limit simple sugars or artificial sweeteners
- Avoidance of specific food triggers (identify through a food diary)
- Probiotics (Lactobacillus)

Office follow-up 1–2 months

Follow-up every 3–6 months

Improved Functioning and/or Symptom Reduction

Yes

No

Consider using PPL 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 1-888-636-7997.