

# Stress Causes Real Abdominal Pain in Children

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STANFORD, CALIF. — Functional gastrointestinal disorders and gastroesophageal reflux disease represented the diagnoses in nearly half of 100 consecutive children with chronic abdominal pain who were referred to the pediatric gastroenterology division at Stanford University's Lucile Packard Children's Hospital.

Functional disorders—which include irritable bowel syndrome, functional dyspepsia, abdominal migraine, aerophagia, and idiopathic functional pain—were present in 24 children, division chief Dr. Kenneth L. Cox reported at a pediatric update sponsored by Stanford University.

An identical number were found to have gastroesophageal reflux disease (GERD), followed by constipation in 20 children, peptic ulcer disease in 9, malabsorption in 8, inflammatory bowel disease in 4, and pancreatitis in 4. Fewer than 2% of cases included ovarian cysts, superior mesenteric artery syndrome, gallstones, chronic appendicitis, or hydronephrosis.

What it all means is that functional abdominal pain is an important diagnosis regardless of whether the treating physician is a pediatrician or family physician, or a pediatric gastroenterologist like himself, said Dr. Cox. "The most important point is, it's real. It's physiological. It's not their imagination; they're not making it up."

Pressure, air passage, and distention all cause real pain in children with functional disorders. The trick is to convince patients, and importantly, their parents, that stress causes this real pain.

A diagnostic evaluation should include a thorough history with a special psychosocial focus; a pain log kept by the patient or family; a physical examination including a rectal examination (to look for signs of constipation or abuse); and basic laboratory studies, including a CBC with white blood cell differential, erythrocyte sedimentation rate, urinalysis (to rule out a chronic urinary tract infection), and a stool Hemocult.

Dr. Cox often orders a kidney, ureter,

bladder x-ray to check for retained stool and to prove to parents that no organic problems underlie their child's pain.

If functional pain proves to be the diagnosis, treatment includes reassurance, stress management; a diet high in fiber and fluids; limits on dietary sorbitol, fructose, and caffeine; and drugs necessary to treat both the symptoms and the stress underlying those symptoms. These may include bulking agents; pain medications; anticholinergics (for bowel spasm); antide-

pressants (especially tricyclic antidepressants, which can modify pain perception); and serotonin agonists and antagonists.

Regarding the other most common diagnosis in his practice, Dr. Cox noted that GERD symptoms in children do not mimic those in adults, with epigastric pain a far more common presenting complaint in children aged 3-9 years than in adults. Heartburn is rarely seen in younger children, and is less common in 10- to 17-year-olds than in adults. But regurgitation and

vomiting are common symptoms in the pediatric population.

The two most useful tests for children with suspected GERD include a 24-hour esophageal pH study and upper endoscopy, he said. Dr. Cox reserves other evaluations—including a technetium-99m gastric emptying study, upper gastrointestinal series, and esophageal motility study—for cases in which he has a particular diagnostic question in mind due to the child's history or physical examination. ■



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## Organic Origins of Abdominal Pain

A number of signs and symptoms increase the possibility of an organic cause of chronic abdominal pain in children. These include:

- ▶ Age less than 4 years.
- ▶ Localized pain, especially in the right lower quadrant.
- ▶ Pain that awakens the child at night.
- ▶ Pain during play.
- ▶ Associated symptoms such as blood in the stool, weight loss, nausea and vomiting.
- ▶ Negative psychosocial history in terms of adjustment at home and at school.

Source: Dr. Cox