



# International Foundation for Functional Gastrointestinal Disorders

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## Gut Reactions – Topics in Functional Gastrointestinal Disease

# Why Symptom Criteria for Functional Gut Disorders?

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# Why Symptom Criteria for Functional Gut Disorders?

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The “functional” gut disorders are syndromes (groups of symptoms) believed to arise from the gastrointestinal tract, but which lack a known cause. The classification of these disorders was promoted by the Rome group and is shown in Table 1. The Rome III project commenced May 2003 at Digestive Disease Week [the largest annual medical meeting of gastrointestinal specialists and researchers]. The purpose is to update the criteria upon which the diagnoses of functional gut disorders rest.

## What is meant by “functional”

The term “functional” is very unsatisfactory. It suggests that a disorder is one of function – in the case of the gut of intestinal dysfunction. Yet many consider this notion simplistic. “Dysfunction” seems inappropriate for symptoms such as pain and bloating. Even when the intestines clearly malfunction as in *functional diarrhea*, we know little about the cause. In the past, “functional” came to be equated with a psychological or psychiatric disorder, or even an imaginary condition, which some doctors declined to take seriously. Nevertheless, until a better term is forthcoming, we must do with the “functional gastrointestinal disorders.”

Functional disorders may have attributions throughout the body, but we are concerned here with those blamed on the *gut* (intestines). Gut dysfunctions such as the irritable bowel syndrome (IBS) or functional constipation have no consistently demonstrable abnormality of gut structure or function. However some others do. Achalasia, intestinal pseudo-obstruction and Hirschsprung’s disease have characteristic abnormalities of the intestinal nerves that can be seen through microscopic examination of tissue biopsies. While they are disorders of the functions of swallowing, intestinal movements, and defecation respectively, they are not usually considered functional gut disorders, which lack such characteristic structural abnormalities

## Functional vs. organic

“Organic” is another unsatisfactory term. It describes those disorders characterized by a specific anatomical or physiological abnormality. If the abnormality is anatomical, the term “structural disorder” is often applied. In the case of heart pain (angina pectoris), the coronary arteries are blocked, interrupting flow of oxygen-rich blood to the heart. Joint destruction

**Table 1**  
**FUNCTIONAL GASTROINTESTINAL DISORDERS**

### **A. Esophageal disorders**

- A1 Globus
- A2 Rumination
- A3 Functional chest pain
- A4 Functional heartburn
- A5 Functional dysphagia

### **B. Gastroduodenal disorders**

- B1 Functional dyspepsia
  - B1a Ulcer-like
  - B1b Dysmotility-like
- B2 Aerophagia
- B3 Functional vomiting

### **C. Bowel disorders**

- C1 Irritable bowel syndrome
- C2 Functional abdominal bloating
- C3 Functional constipation
- C4 Functional diarrhea

### **D. Functional abdominal pain**

- D1 Functional abdominal pain syndrome
- D2 Unspecified functional abdominal pain

### **E. Biliary disorders**

- E1 Gallbladder dysfunction
- E2 Sphincter of Oddi dysfunction

### **F. Anorectal disorders**

- F1 Functional incontinence
  - F1a Soiling
  - F1b Gross incontinence
- F2 Functional anorectal pain
  - F2a Levator ani syndrome
  - F2b Proctalgia fugax
- F3 Pelvic floor dyssynergia

accounts for the pain and disability of arthritis. In the gut, recurrent upper abdominal pain may be due to a peptic ulcer. In these examples treatments that correct these underlying structural abnormalities can relieve the patient's symptoms and disability.

However, this model is inappropriate for many patients. While the symptoms are real in the functional disorders, no known underlying defect explains their symptoms and treatment is not obvious. This is true of many headaches, backaches, muscle aches and abdominal pains.

These contrasting disorders – *functional* and *structural* – are illustrated by *dyspepsia*, an upper abdominal pain or discomfort that may have associated symptoms such as nausea and fullness. Dyspepsia may prompt a physician to suspect a peptic ulcer. An ulcer may be found by examining the stomach and duodenum through a flexible instrument called an endoscope. In this case, the disease is said to be “organic” or “structural,” and there are treatments that can cure the ulcer and relieve the dyspepsia. If no ulcer or other pathology is found, the patient is deemed to have “non-ulcer dyspepsia” (NUD) or “functional dyspepsia.” An ulcer is potentially dangerous with complications that include bleeding and perforation, yet it can be cured with proper treatment. In contrast, NUD has no complications, but no reliable cure.

### Diagnosis

Diagnosis of a structural disease can be suspected from the symptoms it produces, but the diagnosis depends upon demonstrating the abnormality itself. Based on the symptoms, a doctor orders the appropriate test(s). Diagnosis of a functional disorder can rely on no such abnormality. Indeed, the only way we can know that a person is suffering from such a disorder is by the symptom(s) he or she describes. Therefore symptoms are the only means of diagnosis. Sometimes the disorder has a single symptom such as *globus* (sense of difficult swallowing between meals) and *proctalgia fugax* (sudden, severe anal pain lasting minutes and then disappearing) in other cases, several symptoms go together to comprise a syndrome such as the pain and defecation disorder seen in *irritable bowel syndrome* (IBS). Recognition of the characteristic symptom pattern permits a diagnosis.

### Diagnostic criteria

Before diagnostic symptom criteria existed, the diagnosis of IBS and other functional disorders rested on the exclusion of all

structural disease and implied many examinations and tests. The Rome approach is to encourage positive recognition of these disorders by symptoms with few, if any, tests. Research demonstrates that some symptoms are more likely to be found in functional than in organic gut disorders. For example, pain that is relieved by defecation is more likely in IBS than in organic, painful abdominal diseases. Begun in 1986, the Rome process consists of a series of expert working teams that gather evidence and agree on those symptoms that together as diagnostic criteria indicate the diagnosis of functional disorders. [Drossman, 1999]

Implicit in these criteria is the absence of “alarm” features that are not explained by a functional disorder and may indicate a structural one. These include bleeding, fever, weight loss, a lump in the abdomen or a family history of cancer, inflammatory bowel disease, or celiac disease. A careful clinical history and physical examination is necessary to expose the symptoms of a functional disorder and establish the absence of alarms. Thus the diagnosis can often be made at the initial consultation.

### Why do we need symptom criteria for functional disorders?

Physiologists argue that we should use abnormalities of motility to recognize the functional gastrointestinal disorders. This would be ideal if specific abnormalities were reliable and easily applied by primary care doctors. Unfortunately, neither is the case. For example, groups of patients with IBS tolerate the expansion of a balloon in the rectum less well than those without IBS. However, the test is unreliable in individual cases, and unfeasible outside a laboratory. Another school of thought suggests that diagnosis of functional gut disorders such as IBS or bloating or dyspepsia rests on the exclusion of every possible disorder through exhaustive testing. If the tests are negative, the symptoms are deemed to be functional. Not only is this approach costly, but by raising patients' expectations that a cause and cure will be found, can be disappointing and anxiety producing. Moreover, unnecessary testing detracts from the positive diagnosis, education and diet/lifestyle advice that are the basis of good care.

Thus there is no alternative to the symptom diagnosis of functional gut disorders. Diagnostic criteria describe discriminating features of a condition. Until recently, scientific papers reported the results of clinical trials and physiologic studies on gut disorders without accurately describing the entered subjects' symptoms. As a result, readers are unsure to

whom the results could apply. An early objective of the Rome initiative was to establish symptom criteria that would clearly identify those entered in such studies. While there is room for improvement, that goal has been largely accomplished. Symptom diagnoses permitted epidemiologic surveys that establish the great prevalence of the functional gut disorders. Doctors can use symptoms to classify patients so that investigation can be rationally directed. The tests one might consider for constipation, IBS, dyspepsia and bloating are very different from one another. Moreover, a positive approach to diagnosis gives us meaning for our symptoms. Not only are we comforted to learn that we are not imagining our symptoms, but also that our fears of cancer and other life limiting disorders are unwarranted, that we are being taken seriously, and that with a diagnosis the emphasis can shift from tests to treatment. Symptom criteria and diagnosis provide a language in which patients, doctors, scientists and the public can be engaged.

To be sure, there are drawbacks to symptom diagnosis. Without an observable “gold standard,” how can one be sure the criteria are accurate? Each diagnostic entity may turn out to have several causes, and several entities may overlap, notably IBS and dyspepsia. Symptom diagnoses do not guarantee that other disease is absent, as functional and organic disorders may coexist. Since data are sparse and the severity or degree of symptoms is difficult to measure, consensus among the experts is difficult, but possible as demonstrated by the Rome process.

### Summary and Conclusion

Symptom criteria for the diagnosis of the functional gastrointestinal disorders provide a means for doctors, patients and scientists to identify and discuss disorders that have no known structural basis. In primary care, and in gastroenterology practice, patients with unexplained symptoms outnumber those in whom a specific cause can be identified. Of course, it would be nice if we could classify and diagnose these disorders on the basis of motility disturbances, but patients are here and now. Persons expect recognition for their symptoms, precise diagnosis, exclusion of dangerous disease, explanation, and advice on how to cope. Without a diagnosis, these expectations are difficult to satisfy.

The Rome process is a work in progress, and Rome III aims to update the criteria on the basis of emerging data. New information will increase our understanding of the functional gut disorders. As the causes of these disorders become known, symptoms may lead to specific tests (such as the biopsies that

diagnose achalasia and Hirschsprung’s disease or the endoscopy that establishes the cause of some cases of dyspepsia). Then, diagnosis will rest solely on symptoms no longer. Meanwhile, symptom criteria remain the only way to identify the disorders and permit meaningful dialogue among doctors, scientists and patients.

### IFFGD Suggested Reading

Olden K. *Doctor-Patient Communication*. IFFGD. Fact Sheet No. 116.

Raymond P. *How to Talk To Your Doctor-The Doctor’s Perspective*. IFFGD. Fact Sheet No. 142.

Drossman D. *Increasing Understanding of the Functional Gastrointestinal Disorders*. IFFGD. Fact Sheet No. 154.

Thompson W. *The Medical History: How to Help Your Doctor Help You*. IFFGD. Fact Sheet No. 221.

### Other Suggested Reading

Drossman DA. The Rome criteria process: Diagnosis and legitimization of the irritable bowel syndrome. *Am J Gastroenterol* 1999;94 (editorial):2803-2806.

Thompson WG. The Road to Rome. *Gut* 1999;45 (Supplement II):80-81.

Thompson WG. *Understanding the Irritable Gut: The Functional Gastrointestinal Disorders*. Degnon Press. McLean VA. 2008.

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This article is in no way intended to replace the knowledge or diagnosis of your doctor. We advise seeing a physician whenever a health problem arises requiring an expert’s care.

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