

## SUPPLEMENTAL DIGITAL CONTENT

**SUPPLEMENTAL DIGITAL CONTENT, TABLE 1.** Summary of Rome IV criteria for classification of common functional gastrointestinal diseases that are often associated with abdominal cramping pain symptoms.

<b>Functional gastrointestinal disease classification</b>	<b>Definition</b>
Irritable bowel syndrome	Recurrent abdominal pain, occurring on at least 1 day/week over the past 3 months, which is associated with defecation or a change in bowel habits (frequency or appearance of stools)
Functional dyspepsia	<p>One or more of the following:</p> <ul style="list-style-type: none"> <li>• Feeling full after a meal</li> <li>• Feeling full before finishing a meal (early satiety)</li> <li>• Upper abdominal (epigastric) pain</li> <li>• Upper abdominal burning</li> </ul> <p><i>Subtype:</i> Postprandial distress syndrome, comprising one or both of the following on at least 3 days/week:</p> <ul style="list-style-type: none"> <li>• Bothersome fullness after a meal (ie, severe enough to impact on usual activities)</li> <li>• Bothersome feeling of fullness during a meal (ie, severe enough to prevent finishing a regular size meal)</li> </ul> <p><i>Subtype:</i> Epigastric pain syndrome, comprising one or both of the following on at least 1 day/week:</p> <ul style="list-style-type: none"> <li>• Bothersome upper abdominal pain (ie, severe enough to impact on usual activities)</li> </ul>

Functional gastrointestinal disease classification	Definition
	<ul style="list-style-type: none"> <li>• Bothersome upper abdominal burning (ie, severe enough to impact on usual activities)</li> </ul>
Biliary pain	<p>Pain in the upper abdomen and/or right-sided upper quadrant, and all the following:</p> <ul style="list-style-type: none"> <li>• Builds up to a steady level and lasts 30 min or longer</li> <li>• Occurs at different intervals (not daily)</li> <li>• Severe enough to interrupt daily activities or lead to an emergency department visit</li> <li>• Not significantly (&lt;20%) related to bowel movements</li> <li>• Not significantly (&lt;20%) relieved by a change in posture or use of medications to reduce stomach acid</li> </ul>
Narcotic bowel syndrome*	<p>All the following:</p> <ul style="list-style-type: none"> <li>• Long-lasting or frequently recurring abdominal pain (occurring on most days) that is treated with high-dose or long-term opioid medications</li> <li>• The pain is not explained by a current or previous gastrointestinal diagnosis</li> <li>• Two or more of the following: <ul style="list-style-type: none"> <li>○ The pain worsens or does not resolve completely with continued or increasing doses of opioids</li> <li>○ There is marked worsening of pain when the opioid dose wears off and improvement when the next dose is taken (soar and crash)</li> </ul> </li> </ul>

<b>Functional gastrointestinal disease classification</b>	<b>Definition</b>
	<ul style="list-style-type: none"> <li>○ There is a progression in the frequency, duration, and intensity of pain episodes</li> </ul>
Centrally mediated abdominal pain syndrome	All the following: <ul style="list-style-type: none"> <li>● Continuous or nearly continuous abdominal pain</li> <li>● No or only occasional relationship of pain with eating, defecation, or menstruation</li> <li>● Pain limits some aspect of daily functioning (eg, work, sex life, social/leisure activities, family life, caregiving)</li> <li>● The pain is not feigned</li> <li>● The pain is not explained by another gastrointestinal disorder or medical condition</li> </ul>

\*Also referred to as opioid-induced gastrointestinal hyperalgesia.