Functional abdominal pain

Understanding the pain. Calming the gut. Getting back to everyday life.

> **i** Your child's pain is real. Pain can happen even when the gut has no visible injury. A sensitive gut and pain system can be treated, and many children improve.

What does the diagnosis mean?

Functional abdominal pain means recurring tummy pain related to how the gut and its nervous system work. It does not mean your child is pretending. The clinician considers the symptom pattern, growth, examination and any tests that are needed before making this diagnosis.

A medical name, in everyday language

The broader medical term is Disorders of Gut-Brain Interaction (DGBI). The letters stand for Disorders of Gut-Brain Interaction. In this guide, we use the simpler term gut-brain disorder.

The gut and brain constantly exchange messages. In a gut-brain disorder, ordinary digestion, gas or stretching can produce unusually strong discomfort. Changes in gut movement and the way the nervous system handles these messages can also contribute.

An over-sensitive smoke alarm

A smoke alarm can sound loudly for burnt toast, even without a house fire. Similarly, a sensitive pain alarm can produce strong pain without ongoing damage. Treatment helps the alarm respond more appropriately while your child returns to school, meals, sleep and play.

The “two brains”

A useful way to picture the gut’s own nerves and the brain in the head.

The main brain interprets body signals and controls attention, emotion and pain responses. The “gut brain” is the network of nerves in the digestive tract that helps control movement and sensation. It is not a second thinking brain. These systems communicate in both directions through nerves and chemical signals.



MAIN BRAIN

sleep • stress • anticipation
can turn up pain processing

GUT BRAIN

gas • stretch • constipation
can turn up gut sensitivity

Messages travel both ways - treatment can target both ends.

Worry • poor sleep • pressure Anticipating another pain episode Can turn up pain processing

Constipation • gas • stretching Changes after a gut infection Can turn up gut sensitivity

Visceral hypersensitivity: a sensitive tummy

“Visceral” means the internal organs. “Hypersensitivity” means extra-sensitive. A normal amount of gas or a meal stretching the gut may feel painful, rather like sunburnt skin hurting with a light touch.

Brain sensitisation: the volume is turned up

With repeated pain, the brain and spinal cord can become quicker to notice gut signals and amplify them. Fear of another episode and poor sleep can keep this circuit alert. This is an automatic nervous-system response, not a choice or a parent’s fault.

When are tests helpful?

The aim is to find treatable disease when there is a reason to suspect it.

Many children can be diagnosed after a careful clinical assessment. Tests are chosen to answer a particular question, rather than to check for every possible disease. A gut-brain disorder can also coexist with another condition.

Features that may need further investigation

Tell the clinician about weight loss or poor growth; blood in the stool; persistent diarrhoea, especially overnight; repeated vomiting; difficulty swallowing; unexplained fever; an abnormal examination; or a strong family history of coeliac disease or inflammatory bowel disease.

Depending on the findings, testing may include blood counts, inflammation markers, coeliac blood tests or a stool inflammation test. Scans and stool infection tests are used selectively. Do not remove gluten before coeliac testing unless advised.

Is endoscopy a good idea?

Endoscopy can be important if the clinician is concerned about another disease before settling on a gut-brain diagnosis. A gastroscopy examines the upper digestive tract; a colonoscopy examines the large bowel. Small tissue samples can detect conditions that may not be obvious by looking alone.

Examples include suspected inflammation, coeliac disease needing confirmation, or swallowing symptoms suggesting oesophageal disease. The decision depends on symptoms, examination and test results. Your clinician will explain what the procedure could find and how it could change treatment.

i Endoscopy is not routinely needed for every child with functional abdominal pain. It cannot measure how sensitive the pain system is. A reassuring result does not make the pain less real. The benefits must be weighed against bowel preparation, anaesthesia and procedural risks.

! Seek urgent care for green vomit, vomiting blood, severe new pain, a swollen or rigid abdomen, fainting, marked dehydration or a child who is very unwell.

Treating the gut

Choose treatment for the child's symptoms, then review whether it helps.

Start with constipation, if it is present

Retained stool stretches the bowel and can increase pain, bloating and nausea. Some children are constipated even if they pass small stools every day. Treating constipation reduces this source of gut signals; if pain resolves, constipation may have been the main explanation.

An individual plan may include clearing a stool build-up, then a maintenance laxative such as macrogol, toilet sits after meals, feet supported on a stool, and age-appropriate fibre and fluids. Persistent pain after stools become soft and easy may need additional gut-brain treatment.

Probiotics: possible help, with the right strain

Probiotics are live microbes supplied in a product. Benefits depend on the exact strain and preparation; one product cannot be assumed to work like another. Ask your clinician which product to try and for how long.

> i Evidence: Benefits are generally modest and uncertain. The clearest strain-specific guideline support is for Lactobacillus rhamnosus GG in children with IBS, not all functional abdominal pain. Some multi-strain products may help, with low-certainty evidence. More strains or a higher price do not guarantee benefit. [1]

Peppermint oil: easing bowel spasm

Enteric-coated capsules release peppermint oil further along the gut and may relax bowel muscle. They are different from peppermint tea or essential oils. Use a child-appropriate product only on clinical advice; swallow capsules whole. Peppermint can worsen heartburn.

Evidence: Two small paediatric trials suggest reduced pain, but confidence is low. A monitored trial may suit selected children. [1]

Medicines for selected children

These are options within a wider plan, rather than a cure for every child.

Cyproheptadine

This antihistamine also changes serotonin signalling. Clinicians sometimes use it for abdominal pain, particularly when nausea, early fullness or poor appetite accompany the pain. It may help the stomach relax to accommodate a meal.

Evidence: One small, short placebo-controlled trial supports possible benefit for pain; evidence remains limited. [1]

What to watch for: Sleepiness, increased appetite and weight gain; occasionally irritability. Your clinician decides whether these effects are acceptable and checks other medicines. It is not needed by every child.

Amitriptyline: turning down pain signals

Amitriptyline is a neuromodulator: a medicine that changes how nerves handle signals. At low doses it may help dampen gut pain pathways and sometimes improve sleep. Although also called an antidepressant, prescribing it for pain does not mean the child is depressed or that the pain is imaginary.

Evidence: Paediatric trial results are mixed. It may help selected children, but overall evidence is low-certainty. Specialist supervision is appropriate. [1]

What to watch for: Sleepiness, dry mouth and constipation. The prescriber reviews heart rhythm risk, interactions and whether an ECG is needed. Report new mood or behaviour changes promptly. Store it securely; overdose can be dangerous.

i Agree on a trial and a review date. Record the symptom being targeted, expected benefit and side effects. Do not start, combine, change or stop prescribed medicines without advice. Doses depend on the child; this handout is not a prescribing chart.

Other options: what is worth trying?

Evidence and symptom fit matter more than the number of treatments.

Soluble fibre - particularly for IBS

Soluble fibre such as psyllium forms a soft gel with water. It can help regulate stool consistency and may reduce pain in children with IBS. The paediatric guideline supports selected soluble fibre supplements for IBS with moderate-certainty evidence. This support does not apply to every child with functional abdominal pain. [1]

Introduce it gradually with adequate fluid, using an age-appropriate product and plan. Too much too quickly may increase bloating. A fibre supplement does not replace treatment to clear a significant stool build-up.

Why not add more medicines?

Some medicines are used for a particular accompanying symptom, such as reflux or nausea, rather than for functional pain itself. Adult evidence cannot automatically be applied to children. Antispasmodics such as hyoscine are sometimes prescribed, but good paediatric trial evidence is lacking. [1]

Domperidone has limited paediatric pain evidence and heart rhythm concerns, so it is not a routine option for this handout. Antibiotics, acid-suppressing medicines and other antidepressants are not general treatments for a sensitive gut-brain pain system. A separate diagnosis may justify a particular medicine.

Where does amitriptyline fit?

It may be considered when pain continues to disrupt life despite basic measures, especially as part of a plan that also includes gut-brain therapy. Agree on a meaningful goal - for example, fewer interrupted school days - and allow the prescribed trial time before judging benefit.

> i The best plan is usually a few well-chosen treatments with follow-up. Avoid starting several products together: it becomes difficult to tell what helped or caused side effects.

FODMAPs and a gentler food approach

Consider diet changes for a suitable symptom pattern, not for all tummy pain.

What does FODMAP mean?

Fermentable Oligosaccharides, Disaccharides, Monosaccharides And Polyols: groups of short-chain carbohydrates that may be absorbed incompletely. They can draw water into the bowel and be fermented by microbes, producing gas. In a sensitive gut, the resulting stretch can cause symptoms.

Examples include carbohydrates in onion, garlic, wheat, milk, some fruit and sugar-free sweets. These foods are not harmful: portions and personal tolerance matter.

Which symptoms make a trial more reasonable?

The best fit is an IBS-like pattern: pain alongside bloating, wind and changed stools, particularly loose stools or urgency after meals. It is less compelling for isolated pain without these features, or mainly early fullness and nausea. Treat constipation first when it is present. [5]

Evidence in children is limited. A strict low-FODMAP diet is not routinely recommended for all children with functional abdominal pain. Even a well-chosen trial may not help. [1,5]

Why a modified approach is often preferable

A “gentle” approach makes a few targeted swaps for major sources in the child’s usual diet, rather than restricting every high-FODMAP food. This can make meals and school lunches easier and help preserve variety and nutrition. It is less restrictive, but has not been proven more effective than a strict diet. [6]

i Use a paediatric dietitian. If appropriate, agree on a short trial, often 2-6 weeks, then reintroduce foods and keep the broadest tolerated diet. Avoid unsupervised restriction, especially with poor growth, weight loss, food anxiety or an already narrow diet. [5,6]

[5] ESPGHAN - paediatric FODMAP position paper ↗
[6] Monash University - gentle FODMAP approach ↗

Retraining the gut-brain system

Therapy works on the pain circuit and on coping with symptoms.

Gut-directed hypnotherapy

A trained therapist guides your child into a relaxed, focused state, using stories, imagery and suggestions linked to gut comfort. For example, a child might imagine a warm, comfortable tummy or a dial that turns down the pain alarm. The child stays in control.

Sessions and home practice aim to reduce the threat attached to gut sensations and calm the response to them. This is different from stage hypnosis. A child does not have to feel anxious for it to be useful.

Gut-directed cognitive behavioural therapy (CBT)

CBT teaches practical skills for the link between sensations, thoughts, feelings and actions. A therapist helps the child notice thoughts such as “If my tummy hurts, something dangerous must be happening”, and practise a more helpful response based on the medical assessment.

It may include slow breathing, attention-shifting, coping statements, better sleep habits and a gradual return to activities avoided because of pain. Parents learn to validate symptoms, support coping and reduce repeated checking. The aim is to give the child more control, without dismissing the pain.

> i Evidence: Both therapies receive strong paediatric guideline recommendations. Evidence certainty is moderate for hypnotherapy and low overall for CBT. Benefits can include reduced pain and better participation; improvement is not guaranteed. [1]

What should we look for in a therapist?

Choose someone experienced with children of your child’s age and with gut symptoms. Ask about their qualifications, the treatment approach, parent involvement, home practice and how progress is reviewed. Medical care and therapy should work together.

Where to find support

Brisbane options and an app to discuss with your child's clinician.

The Gut-Brain Clinic - Coorparoo

Provides gut-focused psychology and gut-directed hypnotherapy, with adolescent gut health among its listed services. Ask which practitioner and approach suit your child's age; do not assume every service is available for younger children.

thegutbrainclinic.com.au ↗

The Gut Centre - Paddington and telehealth

Offers gut-focused psychological therapies, including CBT and hypnotherapy, and advertises paediatric care. Ask about the current Brisbane clinician, age suitability and availability.

thegutcentre.com - child hypnotherapy ↗

Nerva - app-based gut-directed hypnotherapy

Nerva provides guided audio sessions and gut-brain education for home practice. It can make practice easier to access, but does not provide the individual assessment or tailoring of a child-experienced therapist.

Most app-specific research concerns adults with IBS. An early retrospective study in teenagers reported improvement, but cannot establish benefit as reliably as a controlled trial. Evidence for the app in younger children is limited. Discuss age suitability, parental supervision and current subscription terms before use. [4]

Nerva app and program ↗

These links are examples, not a guarantee of suitability or availability. Confirm fees, referral needs and any rebate directly. A GP or treating specialist can also help find a child-experienced psychologist.

Reading behind this guide

[1] ESPGHAN/NASPGHAN 2025 paediatric treatment guideline ↗

[2] RCH - assessment of chronic abdominal pain ↗

[3] GiKids - CBT for children with gut symptoms ↗

[4] Nerva - research and teenage study link ↗

Helping your child day to day

Small, steady steps matter more than waiting for pain to disappear.

Build a predictable routine

Aim for regular meals, adequate sleep, enjoyable movement and regular toilet time. Keep a balanced diet; extensive food restriction can affect growth and make eating more stressful. If a food seems to be a consistent trigger, discuss a short, supervised trial with the clinician or dietitian.

Make a school plan

Agree on toilet and water access, a brief quiet break and a coping strategy, followed by return to class when medically safe. If attendance has fallen, build it back gradually with the school and treating team. Praise effort and participation, even when some pain remains.

During a familiar flare

1. Acknowledge: “I believe you. I know this hurts.” 2. Use the plan: Slow breathing, a comfortably warm heat pack, toilet access or the agreed medicine. 3. Rejoin the day: After a short break, return to the planned activity as able. 4. Reassess changes: New symptoms or a different pain pattern need medical advice.

How will we know treatment is working?

Look for better sleep, more meals and activities, fewer missed school days, less fear and faster recovery from flares - as well as less pain. A brief diary for 1-2 weeks can track these changes without making symptoms the focus of the whole day.

> “ A helpful message for your child “Your tummy and brain are sending very loud messages. We are going to help your tummy feel more comfortable and teach the alarm system to settle. You do not have to do this on your own.”

Review the plan if progress stalls, side effects occur or new concerning symptoms appear.



Your feedback is welcome

If you would like to leave a Google review about your experience, scan the QR code.

Please avoid including your child's name or private health information in a public review.