Cyclical vomiting syndrome

Recognising attacks early and having a plan before the next episode.

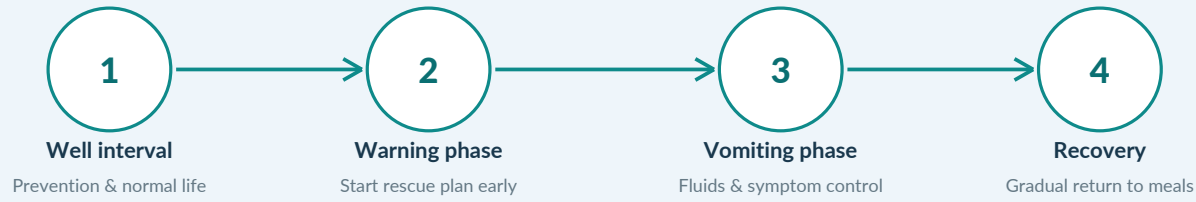
Cyclical vomiting syndrome (CVS), also called cyclic vomiting syndrome, causes repeated episodes of intense nausea and vomiting. Attacks often look similar each time, with recovery and periods of usual or near-usual health between them.

What does an episode look like?

Vomiting can be frequent and exhausting, lasting hours or sometimes days. Pallor, tiredness, tummy pain, sensitivity to light or a wish to lie quietly may occur. Some children have warning symptoms before vomiting begins. A sudden change from their usual attack still needs assessment.

Why is it linked to migraine?

CVS overlaps with migraine biology and can run in families with migraine. The exact mechanism is not fully understood. The brain's nausea and vomiting networks, autonomic nervous system and gut signalling appear to interact. Stress, excitement, illness or poor sleep can trigger episodes; symptoms are not deliberate.



1. Well interval

2. Warning phase

Prevention and normal life

Start the rescue plan early

3. Vomiting phase

4. Recovery

Fluids and symptom control

Gradual return to meals

How is it different from abdominal migraine?

Assessment before the diagnosis

A recurring pattern is important, but other causes need consideration.

The history tells much of the story

Record the timing, duration and frequency of attacks, warning signs, recovery, triggers and family migraine history. The clinician reviews growth, examination, medicines and other possible explanations. Adolescents may be asked privately about cannabis because a separate vomiting disorder can be associated with it.

What tests are usually considered?

The 2025 paediatric diagnosis guideline recommends screening blood and urine tests and an upper gastrointestinal contrast study for suspected CVS. This imaging study helps check bowel anatomy, including malrotation. It is different from a gastroscopy. The team selects additional tests when warning features suggest another disease.

When are extra tests needed?

Attacks triggered by fasting or high-protein meals, low blood sugar, confusion, developmental concerns or poor growth may lead to metabolic testing. New severe headaches, unusual neurological findings, worsening symptoms or vomiting that does not follow the expected pattern may need other assessment. Some samples are most useful during an attack.

Does every child need endoscopy?

No. A scope is not a test that confirms CVS. It may be important if the clinician suspects inflammation, bleeding or another upper gut disease. Once appropriate evaluation is reassuring, repeated broad testing of identical attacks is usually less helpful than a clear treatment plan.

> **i** Treat a new or unusual episode on its own merits. A CVS diagnosis does not rule out appendicitis, bowel obstruction, infection or another acute illness later.

TRUSTED INFORMATION AND SOURCES

NASPGHAN 2025 - diagnosis guideline ↗

GiKids - cyclical vomiting information ↗

The early rescue plan

Act at the warning stage, before repeated vomiting makes oral treatment difficult.

Recognise your child's first signs

Warning signs may include nausea, pallor or tiredness. Use the rescue medicine as planned, rest in a quiet dim room, and offer small sips of oral rehydration solution if tolerated.

Medicines used to interrupt an attack

Ondansetron is commonly used for nausea and vomiting; evidence in CVS is very low-certainty, but clinical experience supports selected use. The prescriber checks dose, interactions and rhythm risk. Triptans or other migraine rescue medicines may be appropriate when personal or family migraine features are present; age, route and timing matter.

When might aprepitant be used?

This medicine blocks a vomiting-signalling pathway and can be used in selected cases as rescue treatment. Evidence is very limited and it has important interactions. A specialist provides the exact schedule; it is not an over-the-counter option.

When home rescue is not working

If fluids cannot be retained or dehydration develops, seek assessment early. IV fluids and anti-nausea treatment may be needed, guided by hydration, glucose and electrolyte results.

! Urgent assessment: green vomit, vomiting blood, severe focal tummy pain or swelling, fainting, little urine, confusion, unusual drowsiness or a new neurological symptom. These should not be managed as a routine home attack.

A written plan helps

Keep the individual plan at home, school and on your phone: medicines, timing, repeat-dose rules, fluids, when to seek care and contact details. This handout is not a personalised prescription.

Preventing future episodes

Use everyday measures and consider medication when attacks are disruptive.

Routines and triggers

Keep sleep and wake times steady, offer regular food and fluids and avoid prolonged fasting. Plan ahead for illness, travel or exciting events. A brief attack diary can identify patterns without making the child constantly monitor symptoms. Avoid broad dietary restriction.

Preventive medicines

A specialist may choose propranolol or cyproheptadine. Evidence is limited: propranolol has low-certainty support and cyproheptadine very low-certainty support. Propranolol can lower pulse and blood pressure and may be unsuitable with asthma; fasting and low-glucose risk need discussion. Cyproheptadine can cause sleepiness, increased appetite and weight gain.

Where does amitriptyline fit?

The 2025 guideline reserves it for more frequent or severe CVS when options with a more favourable side-effect profile have not helped. Evidence is very low-certainty. Monitor sleepiness, constipation and mood or behaviour changes; the clinician checks heart rhythm and interactions. Store it securely because overdose is dangerous.

Other options

Aprepitant or supplements such as riboflavin or coenzyme Q10 may be considered with a monitored trial. Much supplement evidence is indirect or uncertain. Anticonvulsants are generally reserved for refractory disease. None should be added automatically or assumed harmless because it is called a supplement.

i Preventive treatment aims for fewer, shorter or less severe attacks and fewer missed days. Agree on a review period and check tolerability before escalating. Medicine choice is individual, not a rigid age-based rule.

NASPGHAN 2025 - management guideline ↗

School, recovery and follow-up

Help your child return to ordinary life between attacks.

After an attack

Gradually resume usual drinks and meals as tolerated. Do not force a large meal immediately after vomiting. Follow the recovery instructions and seek review if the child does not return to their usual state.

Make a school plan

School should know early warning signs, whom to contact and where the rescue plan is kept. A quiet rest space and prompt access to prescribed treatment may help. Arrange catch-up work without making the child feel responsible for missed days.

Support the gut-brain response

CBT or another child-experienced psychological approach can help anticipatory worry, coping and disrupted routines. That support does not mean vomiting is imagined. Nerva and IBS hypnotherapy research should not be assumed to establish efficacy for CVS; they are not substitutes for a rescue plan.

Keep an attack diary

Note date, warning symptoms, duration, possible trigger, vomiting frequency, fluid tolerance, medicine timing and effect, emergency visits and missed school. Your clinician uses this to judge prevention and refine rescue treatment.

What is the outlook?

Some children improve with age; others later have migraine headaches or need longer-term care. Better control and confidence are achievable even before attacks fully stop.

> “ What to tell your child “Your body sometimes switches on its vomiting alarm very strongly. We have a plan to help early, keep you hydrated and reduce future attacks. This is not your fault.”

GiKids - parent information ↗



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.