

Cyclic Vomiting Syndrome

Definitions & Facts

What is cyclic vomiting syndrome?

Cyclic vomiting syndrome, or CVS, is a [functional gastrointestinal \(GI\) disorder](#) that causes sudden, repeated attacks—called episodes—of severe [nausea](#) and [vomiting](#). Episodes can last from a few hours to several days. The episodes are separated by periods without nausea or vomiting. The time between episodes can be a few weeks to several months. Episodes can happen regularly or at random. Episodes can be so severe that you may have to stay in bed for days, unable to go to school or work. You may need treatment at an emergency room or a hospital during episodes. Cyclic vomiting syndrome can affect you for years or decades.

CVS is not [chronic](#) vomiting that lasts weeks without stopping. CVS is not a condition that has a definite cause, such as [chemotherapy](#).

How common is cyclic vomiting syndrome?

Experts don't know how common cyclic vomiting syndrome is in adults. However, experts believe that cyclic vomiting syndrome may be just as common in adults as in children. Doctors diagnose about 3 out of 100,000 children with cyclic vomiting syndrome every year.¹

Who is more likely to get cyclic vomiting syndrome?

You may be more likely to get cyclic vomiting syndrome if you have

- [migraines](#) or a family history of migraines
- a history of long-term marijuana use
- a tendency to get motion sickness

Among adults with cyclic vomiting syndrome, about 6 out of 10 are Caucasian.²

What other health problems do people with cyclic vomiting syndrome have?

People with cyclic vomiting syndrome may have other health problems,² including

- migraines
- [anxiety](#) and [depression](#)
- [gastroparesis](#)

- [autonomic nervous system disorders](#)
- [high blood pressure](#)
- [gastroesophageal reflux disease](#)
- [irritable bowel syndrome](#)

What are the complications of cyclic vomiting syndrome?

The severe vomiting and [retching](#) that happen during cyclic vomiting episodes may cause the following complications:

- [dehydration](#)
- [esophagitis](#)
- [Mallory-Weiss tears](#)
- [tooth decay](#) or damage to tooth enamel

Symptoms & Causes

What are the main symptoms of cyclic vomiting syndrome?

The main symptoms of cyclic vomiting syndrome are sudden, repeated attacks—called episodes—of severe [nausea](#) and [vomiting](#). You may vomit several times an hour. Episodes can last from a few hours to several days. Episodes may make you feel very tired and drowsy.

Each episode of cyclic vomiting syndrome tends to start at the same time of day, last the same length of time, and happen with the same symptoms and intensity as previous episodes. Episodes may begin at any time but often start during the early morning hours.

What are some other symptoms of cyclic vomiting syndrome?

Other symptoms of cyclic vomiting syndrome may include one or more of the following:

- retching—trying to vomit but having nothing come out of your mouth, also called dry vomiting
- pain in the [abdomen](#)
- abnormal drowsiness
- pale skin
- headaches

- lack of appetite
- not wanting to talk
- drooling or spitting
- extreme thirst
- sensitivity to light or sound
- dizziness
- [diarrhea](#)
- fever

What are the phases of cyclic vomiting syndrome?

Cyclic vomiting syndrome has four phases:

- prodrome phase
- vomiting phase
- recovery phase
- well phase

How do the symptoms vary in the phases of cyclic vomiting syndrome?

The symptoms will vary as you go through the four phases of cyclic vomiting syndrome:

- **Prodrome phase.** During the prodrome phase, you feel an episode coming on. Often marked by intense sweating and nausea—with or without pain in your abdomen—this phase can last from a few minutes to several hours. Your skin may look unusually pale.
- **Vomiting phase.** The main symptoms of this phase are severe nausea, vomiting, and retching. At the peak of this phase, you may vomit several times an hour. You may be
 - quiet and able to respond to people around you
 - unable to move and unable to respond to people around you
 - twisting and moaning with intense pain in your abdomen

Nausea and vomiting can last from a few hours to several days.

- **Recovery phase.** Recovery begins when you stop vomiting and retching and you feel less nauseated. You may feel better gradually or quickly. The recovery phase ends when your nausea stops and your healthy skin color, appetite, and energy return.
- **Well phase.** The well phase happens between episodes. You have no symptoms during this phase.

When should I seek medical help?

You should seek medical help if

- [the medicines your doctor recommended or prescribed](#) for the prodrome phase don't relieve your symptoms
- your episode is severe and lasts more than several hours
- you are not able to take in foods or liquids for several hours

You should seek medical help right away if you have any signs or symptoms of [dehydration](#) during the vomiting phase. These signs and symptoms may include

- extreme thirst and dry mouth
- urinating less than usual
- dark-colored [urine](#)
- dry mouth
- decreased skin turgor, meaning that when your skin is pinched and released, the skin does not flatten back to normal right away
- sunken eyes or cheeks
- light-headedness or fainting

If you are a parent or caregiver of an infant or child, you should seek medical care for them right away if they have any signs and symptoms of dehydration during the vomiting phase. These signs and symptoms may include

- thirst
- urinating less than usual, or no wet diapers for 3 hours or more
- lack of energy
- dry mouth
- no tears when crying
- decreased skin turgor
- sunken eyes or cheeks
- unusually cranky or drowsy behavior

What causes cyclic vomiting syndrome?

Experts aren't sure what causes cyclic vomiting syndrome. However, some experts believe the following conditions may play a role:

- problems with nerve signals between the brain and [digestive tract](#)
- problems with the way the brain and [endocrine system](#) react to [stress](#)

- mutations in certain genes that are associated with an increased chance of getting CVS

What may trigger an episode of cyclic vomiting?

Triggers for an episode of cyclic vomiting may include:

- emotional stress
- [anxiety](#) or [panic attacks](#) , especially in adults
- infections, such as colds, flu, or [chronic sinusitis](#)
- intense excitement before events such as birthdays, holidays, vacations, and school outings, especially in children
- lack of sleep
- physical exhaustion
- allergies
- temperature extremes of hot or cold
- drinking alcohol
- menstrual periods
- motion sickness
- periods without eating (fasting)

Eating certain foods, such as chocolate, cheese, and foods with [monosodium glutamate](#) (MSG) may play a role in triggering episodes.

Diagnosis

How do doctors diagnose cyclic vomiting syndrome?

Doctors diagnose cyclic vomiting syndrome based on family and medical history, a physical exam, pattern of symptoms, and medical tests. Your doctor may perform medical tests to rule out other diseases and conditions that may cause [nausea](#) and [vomiting](#).

Pattern or cycle of symptoms in adults

A doctor will often suspect cyclic vomiting syndrome in adults when all of the following are present⁴:

- three or more separate episodes in the past year and two episodes in the past 6 months, happening at least 1 week apart
- episodes that are usually similar to previous ones, meaning that episodes tend to start at the same time of day and last the same length of time—less than 1 week

- no nausea or vomiting between episodes, but other, milder symptoms can be present between episodes
- no [metabolic](#) , [gastrointestinal](#) , [central nervous system](#) , structural, or biochemical disorders

A personal or family history of [migraines](#) supports the doctor's diagnosis of cyclic vomiting syndrome.

Your doctor may diagnose cyclic vomiting syndrome even if your pattern of symptoms or your child's pattern of symptoms do not fit the patterns described here.

What medical tests do doctors use to diagnose cyclic vomiting syndrome?

Doctors use lab tests, upper GI endoscopy, and [imaging](#) tests to rule out other diseases and conditions that cause nausea and vomiting. Once other diseases and conditions have been ruled out, a doctor will diagnose cyclic vomiting syndrome based on the pattern or cycle of symptoms.

Lab tests

Your doctor may use the following lab tests:

- [Blood tests](#) can show signs of [anemia](#), [dehydration](#), [inflammation](#), infection, and [liver](#) problems.
- [Urine tests](#) can show signs of dehydration, infection, and [kidney](#) problems.

Blood and urine tests can also show signs of [mitochondrial diseases](#) .

Upper GI endoscopy

Your doctor may perform an [upper GI endoscopy](#) to look for problems in your upper [digestive tract](#) that may be causing nausea and vomiting.

Imaging tests

A doctor may perform one of more of the following imaging tests:

- [Ultrasound](#) of the abdomen.
- Gastric emptying test, also called gastric emptying scintigraphy. This test involves eating a bland meal, such as eggs or an egg substitute, that contains a small amount of radioactive material. An external camera scans the abdomen to show where the radioactive material is located. A [radiologist](#) can then measure how quickly the stomach empties after the meal. Health care professionals perform gastric emptying tests only between episodes.

- [Upper GI series](#).
- [MRI scan](#) or [CT scan](#) of the brain.

Treatment

How do doctors treat cyclic vomiting syndrome?

How doctors treat cyclic vomiting syndrome depends on the phase. Your doctor may

- prescribe medicines
- treat [health problems that may trigger](#) the disorder
- recommend
 - staying away from triggers
 - ways to manage triggers
 - getting plenty of sleep and rest

Prodrome phase

Taking medicines early in this phase can sometimes help stop an [episode](#) from happening. Your doctor may recommend over-the-counter medicines or prescribe medicines such as

- [ondansetron](#) (Zofran) or [promethazine](#) (Phenergan) for [nausea](#)
- [sumatriptan](#) (Imitrex) for [migraines](#)
- [lorazepam](#) (Ativan) for [anxiety](#)
- [ibuprofen](#) for pain

Your doctor may recommend over-the-counter medicines to reduce the amount of acid your stomach makes, such as

- [famotidine](#) (Pepcid)
- [ranitidine](#) (Zantac)
- [omeprazole](#) (Prilosec)
- [esomeprazole](#) (Nexium)

Vomiting phase

During this phase, you should stay in bed and sleep in a dark, quiet room. You may have to go to a hospital if your nausea and [vomiting](#) are severe or if you become severely [dehydrated](#). Your doctor may recommend or prescribe the following for children and adults:

- medicines for

- nausea
- migraines
- anxiety
- pain
- medicines that reduce the amount of acid your stomach makes

During the vomiting phase, you should stay in bed and sleep in a dark, quiet room.

If you go to a hospital, your doctor may treat you with

- [intravenous](#) (IV) fluids for dehydration
- medicines for symptoms
- IV nutrition if an episode continues for several days

Recovery phase

During the recovery phase, you may need IV fluids for a while. Your doctor may recommend that you drink plenty of water and liquids that contain [glucose](#) and [electrolytes](#), such as

- broths
- caffeine-free soft drinks
- fruit juices
- sports drinks
- oral rehydration solutions, such as Pedialyte

If you've lost your appetite, start drinking clear liquids and then move slowly to other liquids and solid foods. Your doctor may prescribe medicines to help prevent future episodes.

Well phase

During the well phase, your doctor may prescribe medicines to help prevent episodes and how often and how severe they are, such as

- [amitriptyline](#) (Elavil)
- [cyproheptadine](#) (Periactin)
- [propranolol](#) (Inderal)
- [topiramate](#) (Topamax)
- [zonisamide](#) (Zonegran)

Your doctor may also recommend [coenzyme Q10](#), [levocarnitine](#) (L-carnitine), or [riboflavin](#) as [dietary supplements](#) to help prevent episodes.

How can I prevent cyclic vomiting syndrome?

Knowing and managing your triggers can help prevent cyclic vomiting syndrome. You should also

- get enough sleep and rest
- treat infections and allergies
- learn how to reduce or manage [stress](#) and anxiety
- avoid foods and food additives that trigger episodes

How do doctors treat the complications of cyclic vomiting syndrome?

Doctors treat the complications of cyclic vomiting syndrome as follows:

- dehydration—plenty of liquids with glucose and electrolytes; or IV fluids and hospitalization for severe dehydration
- [esophagitis](#) —medicines to reduce the amount of acid your stomach makes
- [Mallory-Weiss tears](#) —medicines or medical procedures to stop bleeding if the tears don't heal on their own, which they generally do
- [tooth decay](#) or damage to tooth enamel—[dental fillings](#) , [fluoride](#) toothpaste, or mouth rinses

Eating, Diet, & Nutrition

How can my diet help prevent or relieve cyclic vomiting syndrome?

Your diet will not help prevent or relieve [episodes](#) but will help you recover and keep you healthy.

Your doctor may recommend [coenzyme Q10](#) , [levocarnitine](#) (L-carnitine), or [riboflavin](#) as [dietary supplements](#) to help prevent episodes.

What should I eat and drink if I have cyclic vomiting syndrome?

When your [nausea](#) and [vomiting](#) stop, you can generally go back to your regular diet right away. In some cases, you may want to start with clear liquids and go slowly back to your regular diet. You should eat [well-balanced and nutritious meals](#) between your episodes. Your doctors will recommend that you not skip meals in between episodes. If you are [dehydrated](#), drink plenty of liquids that contain [glucose](#) and [electrolytes](#), such as

- broths
- caffeine-free soft drinks
- fruit juices
- sports drinks
- oral rehydration solutions, such as Pedialyte

What should I avoid eating if I have cyclic vomiting syndrome?

In between episodes, you should avoid eating foods that may have triggered past episodes. Eating certain foods such as chocolate, cheese, and foods with [monosodium glutamate](#) (MSG), may trigger an episode in some people. Adults should avoid drinking alcohol.

References

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