

Chronic Hiccups Could Be a Sign of Something Serious

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✓ Fact Checked

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STORY AT-A-GLANCE

- › Hiccups can happen to anyone, at any age. Most are mild and stop within minutes, but in some cases, persistent hiccups may go on for months. These may indicate a significant health problem, including stroke, diabetes, kidney disease or cancer
- › Certain irritations can trigger hiccups, such as eating or drinking too quickly, drinking very hot or cold liquid, carbonated beverages, consuming alcohol, overstretching your neck, or experiencing high levels of stress like fear or excitement
- › Hiccups are an orphan symptom of cancer treatment, so-called as they are more common than most doctors know and are seldom evaluated. Chronic hiccups can lead to fatigue, lower food intake, weight loss, sleep deprivation and aspiration pneumonia, which may hasten death in cancer patients
- › It's crucial to learn how to live with chronic hiccups until they can be stopped. Avoid triggers that increase the risk of hiccups such as spicy food or carbonated drinks, sip water throughout the day to stay hydrated, and take small bites to lower the risk of aspiration
- › There is anecdotal evidence that some home remedies can stop hiccups, such as breathing into a paper bag, sipping vinegar or swallowing sugar, gently applying pressure over the eyeballs, squeezing the fingernail on the pinky finger for 10 seconds or stimulating the vagus and phrenic nerve while swallowing

Hiccups can happen to anyone at any age. Even unborn babies get hiccups, which some believe may help prepare them to begin breathing air. Although there is no consensus on

the role that hiccups play in adults, researchers from University College London¹ announced in 2019 that hiccups in newborns trigger brain signals, which may help the infant learn how to regulate their breathing.

Hiccups describe the sound that is triggered by spasms in the diaphragm. The diaphragm separates your abdomen and your chest, resting under your rib cage. It plays an important role in breathing. As the diaphragm moves downward it creates negative pressure in the chest and you inhale. When you exhale, the diaphragm moves back into place.

An involuntary spasm of the diaphragm causes you to suck in air and at the same time the glottis closes to prevent more air coming in. This causes the classic 'hic' sound of the hiccup. For most people, hiccups are self-limited and last for several minutes. They are usually nothing more than annoying. However, for others, hiccups can be persistent, lasting over two days, or intractable when they last over one month.

If you have multiple episodes of hiccups over a prolonged time, this is also considered chronic hiccups. Intractable or chronic hiccups can become a medical issue in and of itself. However, what is also known is that chronic or intractable hiccups in adults are associated with several medical conditions, including cancer.

Chronically Persistent Hiccups May Signal Something Serious

A 2022 case study² presented in the Open Journal of Urology discussed the case of a 66-year-old man with a two-year history of intractable hiccups. When he presented to the physician, he had no symptoms that were suggestive of kidney cancer. However, an abdominal CT scan revealed a well-defined mass on the right kidney that was growing into the perirenal space.

The researchers noted that 80% of intractable hiccups could be traced to an organic cause and the remaining 20% were linked to a psychogenic trigger. They wrote that "Pathologies in the adrenal glands and kidney, particularly the superior pole, irritate the diaphragm and phrenic and vagus nerves, activating the hiccup reflex."³

Tumors that irritate the diaphragm and phrenic nerve may trigger chronic or intractable hiccups. This can include^{4,5} liver cancer, pancreatic cancer or pancreatitis, bowel cancer, renal cancer and adrenal tumors. In addition to being a presenting sign of tumor growth, hiccups occur in as many as 40% of cancer patients.⁶

Dr. Aminah Jatoi, a medical oncologist from Mayo Clinic Rochester, and two colleagues developed a survey⁷ to gauge health care providers' understanding and awareness of the significance of hiccups in patients with cancer. Ninety completed surveys were returned from physicians, nurse practitioners, nurses and physician assistants.

The survey found hiccups were an under-recognized issue in cancer patients and even when it was recognized and treated, 20% of the health care providers noted that current therapies were not effective, and more treatment options are needed.⁸

A 2013 paper⁹ suggested that refractory hiccups may be associated with hyponatremia, and physicians should consider this in their differential diagnosis when cancer patients present with chronic hiccups. A 2021 paper¹⁰ noted that one-fifth of the cancer patients in their study suffered from hiccups and 54.1% of those had gastrointestinal cancer.

As The Atlantic notes,¹¹ cancer patients may have two ways that hiccups are triggered. Those who have cancer close enough to irritate the phrenic nerve, such as tumors in the chest, throat or head may have a higher risk of developing chronic or intractable hiccups. Researchers have also found that the drugs used to treat cancer, such as chemotherapy and steroids, also increase the risk.

Other Medical Conditions Associated With Chronic Hiccups

As you have likely noticed, certain things can trigger mild hiccups that go away within minutes.¹² Anytime you eat or drink too quickly, drink very hot or cold liquid, drink carbonated beverages or alcohol or overstretch your neck, you may trigger mild hiccups. Additionally, hiccups can start when you experience high levels of stress, such as fear and excitement.

In addition to certain types of cancer, chronic or intractable hiccups are also associated with other serious health conditions. As with the types of cancers that trigger chronic hiccups, these health concerns can irritate the diaphragm or phrenic nerve.^{13,14,15}

Stroke	Brain injury	Multiple sclerosis
Mechanical irritation of the eardrum	Gastrointestinal or abdominal disorders	Growth on the thyroid gland
Diabetes	Electrolyte imbalance	Pleurisy
Pneumonia	Ear infection	Sore throat
Asthma	Pregnancy	Pancreatitis
Hepatitis	Bladder irritation	Kidney disease
Parkinson's disease ¹⁶	Some medications	

A 2021 paper¹⁷ presented the case history of a man with Parkinson's disease who developed severe hiccups when taking dopamine agonists to treat the disease, but the hiccups did not occur when using Levodopa, a central nervous system agent. Corticosteroids, benzodiazepines,¹⁸ acid reflux drugs, barbiturates and opioids¹⁹ are also associated with drug-induced hiccups.

The Benefit of Treating Orphan Symptoms for Cancer Patients

Hiccups are one of the “orphan symptoms” in cancer patients,²⁰ which are symptoms that are seldom evaluated in assessment tools. Yet, as The Atlantic describes Colleen Kennedy's experience during chemotherapy and radiation treatment for stage 3 lung cancer, the pain and discomfort can be overwhelming.²¹

“She hadn’t expected the hiccup fits that started about halfway through her first treatment round. They left her gasping for air and sent pain ricocheting through her already tender body. At times, they triggered her gag reflex and made her throw up.

After they subsided, she felt tired, sore, breathless – as if she’d just finished a tough workout. They were, Kennedy, now 54, told me, “nothing compared to what we would consider normal hiccups at all.” They lasted for nearly a year.”

In most people, hiccups are transient and appear to develop randomly. This makes them extremely difficult to study. A 2015 systematic review²² found only 341 patients across 15 published studies who had been treated for persistent or intractable hiccups. Based on the paucity of data, the researchers concluded “This systematic review revealed no high-quality data on which to base treatment recommendations.”²³

While the condition may be difficult to treat, it can be very challenging for patients. A 2022 paper in BMC Cancer²⁴ evaluated 320 patients and found the median age when hiccups were first reported in this group of cancer patients was 63 years and was notably more prevalent in men than women.

In the group of 320 patients, 89% who reported hiccups were men and only 11% were women. In 62% of the patients, hiccups were reported daily; nine patients had daily hiccups for over six weeks; five had symptoms for years.

Hiccups are a nuisance for most people, but chronic or intractable hiccups can lead to weight loss, lower food intake, sleep deprivation, fatigue and aspiration pneumonia.²⁵ They can also trigger anxiety, depression and decreased cognitive function.²⁶ In patients with cancer, some of these issues can hasten death.

Tips to Cope With Chronic Hiccups

When home remedies or off-label medications do not successfully stop chronic or intractable hiccups, it is crucial to learn how to live with them. Charles Osborne²⁷ had a

case of intractable hiccups that lasted 68 years. His was the longest-recorded case as confirmed by Guinness World Records.

Osborne was born in 1893 and developed hiccups after he fell and hit his head. Kevern Koskovich described how Osborne managed his hiccups to the Smithsonian Magazine as he experienced up to 40 diaphragmatic spasms each minute.

“He’d flex his chest three or four times every minute,” says Koskovich, who knew one of Osborne’s sons and now lives in nearby Correctionville, Iowa. “You could tell he was hiccupping, but he wouldn’t make any noise. He heaved – that’s the best way to describe it.”²⁸

For unknown reasons, Osborne's hiccups stopped suddenly in 1990. He died in May 1991 at the age of 97. For most people, chronic hiccups are stressful and disrupt normal routines. Trying to explain the condition can help alleviate some stress.

Chronic hiccups make it difficult to sleep, which in turn lowers your energy level the next day and may trigger you to eat more to stay awake. However, the hiccups also make it difficult to eat and drink, which can lead to weight loss, dehydration and malnutrition. People with chronic or intractable hiccups find it easier to eat smaller amounts during the day as opposed to three larger meals.

Carbonated drinks and spicy food can trigger hiccups, so they should be avoided. It may be easier to drink small amounts of liquid throughout the day to stay hydrated. Since hiccups are unpredictable, they can increase the risk of choking on food or drink, so taking small mouthfuls can help prevent aspiration.

Home Remedies That May Help Alleviate Hiccups

When you're trying to get rid of mild hiccups at home, there are a few remedies you can try. The idea is to engage in activity that interrupts the hiccup reflex, which hopefully stops the hiccups. If these remedies are not successful, or your hiccups continue to reoccur, it may be time to identify what is irritating the vagus or phrenic nerves.²⁹

Supra-supramaximal inspiration – Inhale and hold your breath for 10 seconds. Before exhaling, inhale two more times, each time holding your breath for five seconds.

Breathing into a paper bag – This raises your CO2 level.

Stimulate the vagus nerve – Pull on your tongue, drink or gargle a cold drink, place gentle pressure over your eyeballs, sip vinegar or swallow sugar. Stimulating the uvula or posterior nasopharynx with nasal vinegar or smelling salts, gargling or gagging may also stimulate the vagus nerve.

Compressing the chest – Bring your knees to your chest and hug them or lean forward while sitting.

Movement – Dr. Tyler Cymet, vice president for institutional effectiveness at the Maryland College of Osteopathic Medicine,³⁰ has found some treatments that work up to 25% of the time, including breathing exercises, yoga and Pilates.³¹

Acupressure point – Squeeze the surface of the fingernail on the pinky finger for 10 seconds.³² Dr. John Talbot believes this has worked on just over 50% of the people he's used it on.

Nerve stimulation while swallowing – Ali Seifi was a neurosurgeon at the University of Texas Health Science Center when he invented the HiccAway.³³ Seifi explains that sucking water forcefully through a bent device, or drinking through a thick paper towel,³⁴ draws the diaphragm down while swallowing, which breaks the spasm cycle.³⁵

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