SYMPTOM

Opisthotonos

Opisthotonos is an unusual rigid posture in which the head, neck, and back arch backward.

WHAT IT FEELS LIKE
My body becomes rigid and arches backward

WHERE IT IS FELT
Neck, back, and sometimes the whole body

MOST COMMON CAUSES
Medication reactions, dystonia, nervous-system disorders

WHEN IT IS URGENT
Any new episode, especially with fever or reduced awareness

USUALLY LASTS
Seconds to persistent, based on the underlying cause

SEE A DOCTOR IF
Episodes recur after urgent causes have been excluded

Overview

Opisthotonos is a severe backward arching of the head, neck, and spine. Strong, uncontrolled muscle contractions hold the body in this unusual posture. It is a symptom, not a disease.

True opisthotonos is uncommon. It can happen with conditions affecting the brain, spinal cord, or muscles. Some medicines can also cause a sudden movement disorder known as acute dystonia , in which muscles tighten without your control.

Ordinary back arching is not always opisthotonos. Babies may briefly arch while crying or feeding, and people may arch because of pain. Opisthotonos usually looks more forceful, rigid, and difficult to interrupt.

Because a new episode can have a serious cause, it needs urgent medical assessment.

What it may feel or look like

During opisthotonos, the neck and back become very stiff. The head pulls backward, and the chest or abdomen may rise. In a severe episode, the body may rest mainly on the back of the head and the heels.

Other muscles may tighten at the same time. The jaw may clamp shut, the arms or legs may become rigid, or the face may twist. The posture can be painful and may interfere with breathing or swallowing.

An episode may last seconds or longer. Some people remain awake and aware. Others may be confused, unresponsive, or having a seizure. Symptoms between episodes depend on the underlying cause.

If possible, note when the episode began and whether there was fever, an injury, a recent medicine change, or loss of awareness. A short video can help clinicians understand intermittent episodes, but only record one if it is safe and does not delay emergency help.

Common causes

There is no single usual cause of opisthotonos. The likely explanation depends on age, medicines, vaccination history, recent illness, and other symptoms.

Relatively more likely causes include:

Less common causes include major disturbances in body salts or metabolism. In newborns, very high bilirubin levels from severe jaundice can injure the brain and cause arching. Rare inherited metabolic disorders may also be responsible.

Urgent causes include meningitis or encephalitis, which are infections or inflammation around the brain; tetanus; poisoning; and a severe head or spinal injury. These conditions usually cause other symptoms as well, but opisthotonos may be one visible sign.

- Medication-induced dystonia: Certain antipsychotic or anti-sickness medicines can trigger severe muscle contractions, sometimes after a first dose or dose change
- Existing movement disorders: Dystonia related to a brain condition or previous brain injury can sometimes produce backward arching
- Seizure-related posturing: Some seizures cause sudden stiffening, although not every episode of arching is a seizure

When to seek medical care

Call emergency services for a new episode of rigid backward arching, particularly if it is happening now. Do not drive yourself while an episode is active.

Emergency help is especially important if there is:

While waiting for help, move nearby objects away and protect the person from falling. Do not

hold the body down or try to force the spine straight. Do not put anything in the mouth. Follow instructions from the emergency call handler.

If brief arching keeps happening but urgent causes have already been excluded, arrange follow-up with a clinician. Babies who repeatedly arch during or after feeds should also be assessed, even if they seem well between episodes.

- Trouble breathing, blue or grey skin, or choking
- Fever, a severe headache, a stiff neck, or a new rash
- Confusion, unusual sleepiness, fainting, or difficulty waking
- A seizure lasting more than five minutes or repeated seizures
- A recent head, neck, or back injury
- A deep or dirty wound with increasing stiffness or spasms
- Severe jaundice, poor feeding, or unusual sleepiness in a newborn
- A reaction soon after starting or changing a medicine

How the cause is found

A clinician will ask what the episode looked like, how long it lasted, and whether awareness changed. They will also ask about fever, injuries, wounds, vaccination history, jaundice, seizures, and existing neurological conditions.

Bring a list of prescription medicines, non-prescription products, and recreational substances. The timing of a new medicine or dose change can be an important clue.

The examination may include muscle tone, reflexes, breathing, temperature, awareness, and signs of infection or injury. Depending on the findings, tests may include blood tests, brain or spine imaging, an electroencephalogram to measure electrical activity in the brain, or a lumbar puncture to test fluid from around the brain and spinal cord. Not everyone needs every test.

Treatment and self-care

Treatment focuses on the cause and on protecting breathing and preventing injury. This usually requires medical care rather than home treatment.

A medicine-related dystonic reaction can often be reversed with medication given by a healthcare professional. Do not stop a prescribed medicine suddenly unless a clinician advises it, but seek urgent help for severe stiffness or arching.

Brain or spinal infections may require hospital treatment with antimicrobial medicines and supportive care. Tetanus treatment can include wound care, medicines to control the infection and spasms, tetanus immune globulin, and breathing support. Severe newborn jaundice may require light treatment or, in critical cases, an exchange transfusion.

Until the cause is understood, do not try stretching, massage, or forceful repositioning during an episode. These measures may cause injury and will not treat the underlying problem.

What to expect

Recovery depends on what caused the posture and how quickly that cause is treated. A medication reaction may improve soon after appropriate treatment. Infection, injury, tetanus, or brain-related conditions may require a longer hospital stay and rehabilitation.

Some people have no further episodes once the trigger is removed. Others with an ongoing movement or neurological disorder may need follow-up with a neurologist, physiotherapist, or other specialist.

After emergency assessment, ask what signs should prompt another urgent visit and whether any medicines should be changed or avoided.

Common questions

Is opisthotonos the same as a seizure?

No. A seizure can cause rigid posturing, but opisthotonos can also result from dystonia, infection, injury, tetanus, or metabolic problems. The appearance alone may not identify the cause.

Can reflux cause a baby to arch backward?

Some babies arch around feeding, and reflux-related conditions can produce unusual postures. This is not always true opisthotonos. Repeated arching should be discussed with the baby's clinician, while rigid arching with fever, poor feeding, marked sleepiness, breathing trouble, or severe jaundice needs urgent care.

Can stress cause opisthotonos?

Stress can worsen some movement disorders, but a new rigid backward posture should not be assumed to be caused by stress. Physical and medication-related causes need assessment first.

Is opisthotonos contagious?

The posture itself is not contagious. Some underlying infections may spread between people, while causes such as medication reactions, injuries, and movement disorders do not.

Sources

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