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Diseases and Conditions

Cervical dystonia

By Mayo Clinic Staff

Cervical dystonia, also called spasmodic torticollis, is a painful condition in which your neck muscles contract involuntarily, causing your head to twist or turn to one side. Cervical dystonia can also cause your head to uncontrollably tilt forward or backward.

A rare disorder that can occur at any age, even infancy, cervical dystonia most often occurs in middle-aged people, women more than men. Symptoms generally begin gradually and then reach a point where they don't get substantially worse.

There is no cure for cervical dystonia. The disorder sometimes resolves without treatment, but sustained remissions are uncommon. Injecting botulinum toxin into the affected muscles often reduces the signs and symptoms of cervical dystonia. Surgery may be appropriate in a few cases.

The muscle contractions involved in cervical dystonia can cause your head to twist in a variety of directions, including:

- Chin toward shoulder
- Ear toward shoulder
- Chin straight up
- Chin straight down

The most common type of twisting associated with cervical dystonia is when your chin is pulled toward your shoulder. Some people experience a combination of abnormal head postures. A jerking motion of the head also may occur.

Most people who have cervical dystonia also experience neck pain that can radiate into the shoulders. The disorder also can cause headaches. In some people, the pain from cervical dystonia can be exhausting and disabling.

In most cases of cervical dystonia, doctors don't know why some people develop the disorder and others don't. Some cases, however, appear to be linked to head, neck or shoulder injuries. Certain drugs, notably specific antipsychotic or anti-nausea agents, trigger cervical dystonia in some people.

Risk factors for cervical dystonia include:

- **Age.** While the disorder can occur in people of any age, even children, it most commonly begins between the ages of 40 and 70.
- **Sex.** Women are more likely to develop cervical dystonia than are men.
- **Family history.** If a close family member has cervical dystonia or some other type of dystonia, you are at higher risk of developing the disorder.

Some people who start out with cervical dystonia eventually develop similar symptoms in neighboring regions, such as the shoulder or face. In addition, the disability and pain that can be caused by cervical dystonia may result in depression.

While you might first discuss your symptoms with your family doctor, he or she may refer you to a neurologist — a doctor who specializes in disorders of the brain and nervous system — for further evaluation.

What you can do

Because appointments can be brief, plan ahead and write a list that includes:

- Information about the medical problems of your parents or siblings
- All the medications and dietary supplements you take
- Questions you want to ask the doctor

What to expect from your doctor

Your doctor may ask some of the following questions:

- When did your symptoms start?
- Have your symptoms worsened over time?
- Does anything seem to help relieve your symptoms?
- What medications do you take?
- Have you ever had a stroke or head injury?

While the physical examination alone can often confirm a diagnosis of cervical dystonia, it's important to determine if there are underlying conditions causing your signs and symptoms. Tests may include:

- **Blood or urine tests.** These may reveal the presence of toxins.

- **Magnetic resonance imaging (MRI).** This type of imaging test may be used to identify and visualize tumors or evidence of stroke.
- **Electromyography (EMG).** This test measures the electrical activity of muscles. EMG helps evaluate and diagnose muscle and nerve disorders and can help confirm whether you have cervical dystonia or another condition.

There is no cure for cervical dystonia. In some people, signs and symptoms may disappear without treatment, but recurrence is common. Treatment focuses on relieving the signs and symptoms.

Medications

People who have cervical dystonia often must use a combination of medications to reduce their signs and symptoms.

- **Botulinum toxin.** This paralyzing agent, often used to smooth facial wrinkles, can be injected directly into the neck muscles affected by cervical dystonia. Examples of botulinum toxin drugs include Botox, Dysport, Xeomin and Myobloc. Most people with cervical dystonia see an improvement with this treatment, which usually must be repeated every three to four months.
- **Parkinson's drugs.** Medications used to combat the tremors associated with Parkinson's disease may be used in combination with botulinum toxin injections. Frequent side effects include dry mouth, constipation, memory problems, reduced urinary stream or visual blurring.
- **Muscle relaxants.** These drugs often help a little, but also have side effects, most notably sedation, imbalance and mild cognitive impairment. Examples include diazepam (Valium, Diastat), lorazepam (Ativan), clonazepam (Klonopin) and baclofen (Lioresal, Gablofen).
- **Pain medications.** The pain from cervical dystonia may require drug treatment. This may range from over-the-counter pain relievers to prescription pain medications.

Therapy

The signs and symptoms of cervical dystonia are sometimes eased by:

- Exercises that improve neck strength and flexibility
- Judicious use of a neck brace
- Training in stress management techniques

Surgical and other procedures

If less invasive treatments don't help, your doctor may suggest surgery.

- **Cutting muscles or nerves.** Surgery to cut the nerves or muscles responsible for the contorted posture associated with cervical dystonia can be performed to help those who no longer get benefit from botulinum toxin or medications. This is called selective denervation surgery and isn't widely available.
- **Deep brain stimulation (DBS).** In this surgical procedure, a thin wire is guided into the brain through a small hole cut into the skull. The tip of the wire is placed in the portion of the brain that controls movement. Electrical pulses are sent through the wire to interrupt the nerve signals making your head twist. DBS is used only in the most difficult of cervical dystonia cases.

Cervical dystonia has no cure, but you can do a number of things to minimize its effects:

- **Reduce stress.** Avoiding situations that cause stress or anxiety is important because stress tends to make your signs and symptoms worse.
- **Get your rest.** Signs often disappear during sleep, so get plenty of rest. You may find relief by taking short breaks during your day to lie on your back and relax.
- **Use heat.** Heat packs may help loosen the taut muscles in your neck and help with pain relief.
- **Try touching.** Sensory tricks, such as touching the opposite side of your face or the back of your head, may cause spasms to stop temporarily. Different sensory tricks work for different people, and if you find one that works, it usually will continue to work for you.

Severe cases of cervical dystonia may make you feel uncomfortable in social situations or even limit your abilities to accomplish everyday tasks such as driving. Many people with cervical dystonia feel isolated and depressed.

Remember that you're not alone. A number of organizations and support groups are dedicated to providing information and support for you and your family — whether you have the disorder or you have a friend or family member who does.

Your doctor may be able to suggest support groups available in your area, or there are a number of good sites on the Internet with information about local support groups.

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