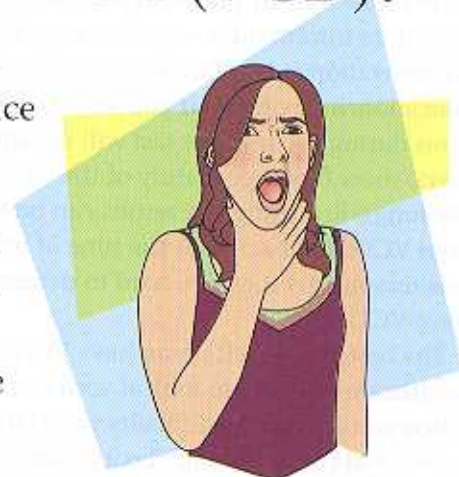


What is Vocal Cord Dysfunction (VCD)?

Where are the vocal cords and what do they do?

Your vocal cords are deep in your throat in your voice box (larynx). Normally, when you breathe in (in-hale), your vocal cords open. This allows air to go into your windpipe (trachea) and lungs. When you breathe out (exhale), your vocal cords open and let the air out of your lungs. Breathing out can cause your the vocal cords to vibrate and lets you produce sounds (your voice).



What is Vocal Cord Dysfunction (VCD)?

Vocal Cord Dysfunction means that your vocal cords do not act normally. With VCD, instead of your vocal cords opening up when you breathe in and out, your vocal cords close. This closing of your vocal cords makes it harder to get air into or out of your lungs.

An attack of VCD can be sudden and may be severe. Without treatment, a severe attack may require emergency room treatment. Even if an attack is severe, the oxygen level in your blood is usually normal. VCD symptoms do not usually occur during sleep.

What can cause VCD?

There are many different possible causes of VCD. Often no cause can be found. VCD may be caused by:

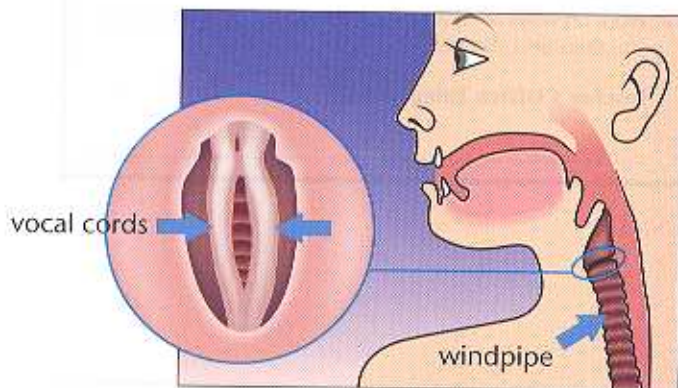
Common signs and symptoms of VCD

- Feeling short of breath or feeling that it is hard to get air into or out of your lungs.
- A feeling of tightness in the throat or chest.
- Frequent cough or clearing your throat.
- A feeling of choking or suffocation
- Noisy breathing (wheezing or raspy sound/stridor)
- Hoarse voice

- Upper respiratory infection (cold)
- Strong odors or fumes
- Tobacco smoke
- Post-nasal drip
- Acid reflux (GERD)
- Strong emotions and stress
- Exercise

How do I know if I have VCD?

VCD can be very hard to detect. Often people with VCD are thought to have asthma because the symptoms and triggers for VCD and asthma can be similar. The difference between VCD and asthma is that if you have asthma, medicines that open your breathing tubes (bronchodilators like albuterol) will improve your breathing. If you have VCD alone, the bronchodilator will not work. To make it even more confusing, you may have both VCD and asthma.



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Your healthcare provider can find out if you have VCD by testing your breathing and looking at your vocal cords. The breathing test is called spirometry and must include a flow-volume loop. This test shows how well air moves in and out of your lungs. (For more information on pulmonary function tests, see www.thoracic.org/sections/education/patient-education/index.html) If you are having VCD symptoms during the test, the test will usually, but not always, show blockage mainly of the air flowing into the lungs. Breathing test results can be normal if your VCD is not active at the time of testing. This is one reason why it can be hard to determine if you have VCD.

The best way to tell if you have VCD is for your healthcare provider to look at your vocal cords when you are having difficulty breathing. To look at your vocal cords, a small, flexible fiberoptic tube (laryngoscope) is passed through your nose to the back of your throat where your vocal cords can be seen. Before the tube is put into your nose, medicine to numb your nose and throat is used. The test is usually done as an outpatient so you do not need to stay in the hospital. During the test, you are awake, and you may be asked to talk to see if your vocal cords are working normally.

You may be asked to exercise on a treadmill or cycle with the breathing testing or may inhale a medicine called methacholine during testing to try to bring on the VCD symptoms. If symptoms develop, a breathing test or laryngoscopy will be done to confirm the abnormal closure of the vocal cords.

How is VCD treated?

VCD is different than many other breathing problems because medicines are not the main treatment to control or prevent VCD.

- The main treatment for VCD is speech therapy techniques that help you learn to control your vocal cords
 - Speech therapy techniques are usually taught by a speech therapist or psychologist who is trained and experienced in treating VCD.
 - The techniques you will learn will help to improve your ability to relax your throat muscles.

- You may have to meet with a therapist at least 3 to 4 times to learn these techniques.
- Learning these techniques takes regular practice. You will need to practice them even when you are not having VCD, so you can be ready to control the symptoms before they become severe.
- Strong emotions and stress can trigger VCD, so it is important to learn to manage your stress. Relaxation techniques, biofeedback, and psychotherapy have been shown to be helpful in controlling VCD.
- If you have asthma and VCD, it is important that your asthma is under good control.
- If your VCD is triggered by post-nasal drip or acid reflux (GERD), it is important to talk to your healthcare provider about what you can do to control these.

Authors: Brugman, S, Craven, D, Fahy, B, Hewitt, H, Sockider, M.

For additional information:

National Jewish Medical and Research Center
<http://www.njc.org/disease-info/diseases/vcd/index.aspx>
Asperius Wausau Hospital
http://www.aspiruslibrary.org/patient_ed/pdf/st/pe-st-005.pdf

Rx What to do...

- ✓ If you or your healthcare provider thinks that you may have VCD, ask to see a VCD specialist.
- ✓ Learn the speech therapy techniques that control VCD and practice them regularly.
- ✓ If you have asthma or acid reflux, take your medicines regularly.
- ✓ Work on ways to reduce your stress and do what helps you relax and stay calm.

Doctor's Office Telephone: