

About Vocal Cord Dysfunction (VCD)

(Also Known as Paradoxical Vocal Cord Motion or PVFM)

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What is vocal cord dysfunction?

In 1983, doctors at National Jewish Health described a condition that may be confused with asthma. This condition is called vocal cord dysfunction, or VCD. People with VCD will report asthma-like symptoms to their doctors.

What are the symptoms of vocal cord dysfunction?

Symptoms of VCD include:

- Shortness of breath
- Intermittent hoarseness and/or wheezing
- Chronic cough and/or throat clearing
- Chest and/or throat tightness
- "Just having trouble getting air in."

These symptoms are a result of an abnormal closing of the vocal cords (VCD) rather than inflammation of their airways (asthma).

Based on these symptoms, many people with VCD may be misdiagnosed with asthma and treated with asthma medications. Since VCD is not asthma, little or no improvement is seen in symptoms. If VCD is still not diagnosed, oral steroids (used in other chronic lung diseases like severe asthma) may be prescribed. Significant side effects can develop with long-term use of these medicines. Oral steroids are only recommended if it is shown that the benefits of their use outweigh the costs. Additionally, a misdiagnosis can also lead to frequent emergency room visits and hospitalizations – even intubation.

While it should be clear why a correct diagnosis of VCD is important, it is also critical to keep in mind that some people have both VCD and asthma, which complicates both the diagnosis and the treatment.

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What happens with VCD?

To understand VCD, it is helpful to understand how the vocal cords function. The vocal cords are located at the top of the windpipe (trachea) and vibrate from exhaled air to produce noise and voice. Breathing in and out causes the vocal cords to open allowing air to flow through the windpipe (trachea). However, with vocal cord dysfunction, the vocal cords close together, or constrict, during one or both parts of the breathing cycle. This leaves only a small opening for air to flow through the windpipe and causes asthma-like symptoms.

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This information has been approved by [Marcy Hicks, M.S., CCC-SLP](#) (July 2006).

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Management and Treatment of Vocal Cord Dysfunction (VCD)

How is VCD Diagnosed?

What Can Trigger VCD Symptoms?

How is VCD Treated?

How is VCD Diagnosed?

Making a diagnosis of VCD can be very difficult. If the doctor suspects VCD she/he will ask many questions about symptoms. Common symptoms include a chronic cough, chronic throat clearing, shortness of breath, difficulty breathing, chest tightness, throat tightness, hoarseness and wheezing. Many people diagnosed with VCD complain that they "just have trouble getting air in".

Are There Any Associations With Other Conditions?

Many people with VCD have problems with postnasal drip (from chronic nasal and/or sinus congestion) or gastroesophageal reflux disease. This relationship may be one of cause and effect because these two conditions can lead to chronic irritation of the throat that then causes the vocal cords to become hypersensitive to irritant stimuli.

What About Breathing Tests?

Breathing tests like spirometry can be useful in diagnosing VCD, but only if they are done when symptoms are occurring. In the absence of any other complicating condition like asthma, breathing tests for VCD will be normal. However, if spirometry is conducted when symptoms are present, and if the doctor

obtains what is called a "flow volume loop", VCD will cause a flattening of the inspiratory (and/or expiratory) part of the loop.

What About Laryngoscopy?

While spirometry is important and useful, a procedure called a **laryngoscopy** is the most important test in making the diagnosis of VCD. Using a flexible, fiber optic tube and tiny camera inserted into the back of the throat, a specialist can see how the vocal cords open and close. Like spirometry, this test should only be performed when symptoms are present because the vocal cords function normally in the absence of symptoms. Since people with VCD cannot trigger symptoms voluntarily, different tests to trigger symptoms may be required.

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What Can Trigger VCD Symptoms?

Possible triggers of VCD are often similar to asthma triggers. Triggers may include upper respiratory infections, air pollution, strong chemical fumes and odors, cigarette smoke, singing, laughing, emotional upset, post-nasal drip, gastroesophageal reflux disease, cold air, and exercise. Sometimes the trigger is not known.

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How is VCD Treated?

Once diagnosed with VCD, a specific treatment program can begin. If VCD is the only condition, asthma or other medications may be stopped. If both asthma and VCD are

diagnosed, asthma medications may be continued, but are often decreased. Treatment for gastroesophageal reflux disease and postnasal drip should be started if these are present.

What About Speech Therapy?

There are many special exercises and therapies that help control VCD. Speech therapy is a very important part of the treatment for VCD. Special exercises increase your awareness of abdominal breathing and relax your throat muscles. This enables you to have more control over your throat. Learning cough suppression and throat clearing techniques can also be extremely helpful. Practicing these techniques when symptom free insures effective use of them during an episode. All of the exercises are aimed at overcoming abnormal vocal cord movements and improving airflow into the lungs.

What About Counseling?

Another important part of treatment is supportive counseling. Counseling can help adjust to a new diagnosis and a new treatment program. Counseling can also help identify and deal positively with stress that may be an underlying factor in VCD. Most people with VCD find counseling to be very beneficial.

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