Paradoxical Vocal Fold Motion (PVFM)

Information for teens

What is PVFM?

PVFM stands for Paradoxical Vocal Fold Motion. It is also known as Vocal Cord Dysfunction (VCD). During normal breathing, our vocal cords move apart from each other when we breathe in, allowing air into the airway. The vocal cords move toward each when we breathe out, during speech and when we cough. PVFM has one key feature: during breathing, the vocal cords may try to close instead of staying open. This squeezing makes the air passages smaller and makes it harder to pull air into the lungs.
Symptoms of PVFM

Symptoms of PVFM include:
• Shortness of breath
• Throat tightness, chest tightness
• Wheezing or noisy breathing when inhaling (breathing in)
• Chronic coughing or throat clearing
• Mild hoarseness (weak, scratchy or breathy voice)

Is PVFM the same as asthma?

PVFM is very different from asthma. Asthma is caused by irritation and narrowing of air passages in the chest. Patients with asthma tend to have more trouble breathing out; while patients with PVFM have trouble breathing in.

Teens that have PVFM may be thought to have asthma and treated with asthma medicine. Because PVFM is not asthma, this medicine may not help. If you have PVFM but not asthma, you may be taking medicines you do not need. Some teens have both asthma and PVFM. If you have both PVFM and asthma, it can seem like the correct medicine is not working all of the time.

What triggers PVFM?

Triggers are things that set off or start your PVFM. Asthma and PVFM have similar triggers. A few common triggers are:
• Exercise
• Gastroesophageal Reflux Disease (heartburn or sour burps)
• Common cold (upper respiratory infection)
• Air pollution, smoke, e-cigarettes or vaping
• Stress or anxiety
• Post-nasal drip (mucus down the back of the throat)
• Cold air
• Singing or laughing

How is PVFM diagnosed?

Diagnosing PVFM includes:
• Talking to you about when symptoms happen. For example, is it noisy when you breathe in, when you breathe out, or both? How often do you have a tight feeling throat? Do you struggle with breathing while exercising, during school, or each morning?
• Examining the muscles of the vocal cords when you are not having breathing difficulty. This is done with a special instrument called a flexible telescope. It allows us to see whether the vocal cords are irritated, as well as determine if there are any other abnormalities that may explain the symptoms.
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- Viewing the muscles of the vocal cords with a flexible telescope when you are having breathing difficulty. This is done to see if the vocal cords are closing the airway when it should be open.
- Measuring how much air is getting onto your lungs when you are not having symptoms. This is done to see if your lungs are normal.
- Measuring how much air is getting into your lungs when you are having symptoms. This is done to see if there is less air than usual moving in and out of the lungs.
- Observing how you use muscles in your neck, chest and stomach when you breathe.

Who will care for me?

PVFM is often treated by a team of providers. For an accurate diagnosis and treatment you may see the following specialists:

- Otolaryngologists (ear, nose and throat doctor) - look at your vocal cords with a flexible telescope.
- Pulmonologists (airway doctor) - perform tests that measure the amount of air going in and out of the lungs.
- Speech-Language Pathologists - provide treatment and teach you ways you use the throat muscles to open the airway.
- Allergists - treat asthma and allergies.
- Psychologists - help reduce the anxiety or stress caused by breathing difficulty.

How is PVFM treated?

Your doctor will make treatment recommendations after your appointment. The treatment plan may include:

- Speech Therapy - to learn relaxed throat breathing to control PVFM. You will learn correct breathing, how to relax the throat muscles, and how to manage PVFM. You may also learn how to suppress unnecessary coughing and throat clearing.
- Evaluation of medicines - We will make recommendations and adjustments to the medicines you are taking. This may include trying medicines to treat upper airway irritations.
- Diet changes - if you have irritated vocal cords or gastroesophageal reflux we may recommend changes in your diet and eating habits.
- Counseling - to help you adjust to a new diagnosis and treatment program.
How soon will I improve?

You may begin feeling better after 1 to 3 treatment sessions. You will have to work every day to learn what triggers your PVFM. You will also learn how to reduce the number of episodes and how to do exercises for relaxed throat breathing. It is best for you to learn these skills when you are not having trouble breathing. If you have trouble breathing during school or sports, talk to your teachers or coaches, so they can help you manage your difficult breathing.

Summary

PVFM is common and treatable. Your treatment program will be tailored to your needs. Your family must make a commitment to work as part of the team. You can help by taking medicine, keeping appointments and practicing daily. Together, we can help stop disruptions to your life due to PVFM.