

Shortness of Breath Could be Botulism

Betty asked me to search for causes and treatment of shortness of breath. The 82 year old woman has been through numerous heart and lung tests and imaged and scanned from top to bottom. No reason for her shortness of breath and total body weakness has been found or explained to her satisfaction.

In researching this I found some new information and have a better understanding of the possibilities. My intent is to clarify some of the possibilities and suggest things that she should ask her doctor.

1. Chronic Obstructive Pulmonary Disease is the most common lung disease causing shortness of breath in older adults. COPD includes emphysema, chronic bronchitis and along with other problems. Repeated lung infections can cause shortness of breath by damaging the lungs. Continuous exposure to any kind of air pollution, fumes, dust or smoking can eventually damage the lungs and produce shortness of breath.

Betty never smoked and does not have emphysema or chronic bronchitis. However, she has been on a farm most of her life. Apparently, any cumulative lung damage is tossed into this COPD category and because it's cumulative, it worsens with age. She should ask her doctor if she actually has COPD lung damage from breathing the constant dust of plowing, planting and harvesting, fertilizers and tractor exhaust fumes. If so, there are medications that may ease the symptoms.

2. Pulmonary hypertension affects only the arteries of the lungs. It happens when the tiny arteries of the lungs become narrowed or blocked causing increased resistance to the flow of blood in the lungs. This raises the pressure in the pulmonary arteries, forcing the right ventricle of the heart to work harder to pump blood through the lungs. Eventually the heart muscles will weaken and fail. The primary symptoms are shortness of breath, fatigue, dizziness and edema in the ankles and legs.

Pulmonary hypertension can be a primary condition but is usually secondary to other medical problems such as: blood clots in the lungs, COPD, connective tissue disorders, sleep apnea, lung diseases or high altitude. Multiple tests are usually required to diagnose it. Echocardiography, pulmonary function tests, perfusion lung scan along with a ventilation scan and right heart catheterization are the primary ones.

Pulmonary hypertension, like regular hypertension, cannot be cured but can be treated with a number of medications. Also the underlying problem needs to be treated. I know Betty has had blood clots in her legs. She should have her doctor reread the scans to see if there are blood clots in the lungs which could be causing this. The pulmonary function test and the perfusion and ventilation scans seem to be a measure for this. She definitely should ask her doctor to look into this possibility.

3. Oxygen needs to be carried in the blood for the body to function properly. In some blood diseases, or if there has been bleeding, not enough oxygen reaches the tissues, so shortness of breath with mild exercise can result. Consulting a hematologist about possible blood diseases or conditions is a sensible thing to do.

4. Shortness of breath causes anxiety and anxiety can cause shortness of breath. Practicing deep breathing, using the diaphragm instead of the upper chest muscles, will use more lung capacity. Meditatively inhaling deeply through the nose into the belly and slowly blowing out through pursed lips, will relax the mind while strengthening the lungs. However, use of an anti-anxiety medication could ease the problem so it should be discussed with her doctor.

To my dismay I found two things for which I'm going to suggest she be tested. Apparently, botulism (a rare but potentially fatal form of food poisoning) and lead poisoning both block messages from the nervous system to the muscles required for breathing. This causes the inability to breathe deeply.

My family lived on home-canned food when I was a kid. I knew we had to process it properly, and boil it again before eating, to avoid botulism but I never knew exactly what botulism is and does.

5. Botulism is a paralytic illness caused by a nerve toxin produced by a bacterium. Infants can get botulism from eating honey containing the spores of botulism and wounds can become infected with botulism spores but eating improperly processed food is by far the most common cause.

Symptoms usually occur within 18 to 36 hours after ingestion but that can vary to as early as 6 hours and as long as 10 days. The symptoms include: double or blurred vision, droopy eyelids, slurred speech, difficulty swallowing, dry mouth and muscle weakness.

The paralysis causes respiratory failure in most patients that often requires a ventilator for many weeks. Apparently this illness progresses slowly and heals slowly. There is an antitoxin which can be used to prevent patients from worsening but it doesn't decrease healing time.

Wow! I didn't know that. I thought botulism had sick stomach symptoms like food poisoning! This is very enlightening and I am glad I learned it.

6. The other condition that blocks messages from the nervous system to the breathing muscles is Lead poisoning, a cumulative condition. Over time, exposure to lead particles in the air from soil or house dust, or ingested in drinking water or food, can cause blood levels to rise to a point where symptoms can appear. In adults those symptoms include: pain, numbness or tingling of the extremities, muscular weakness, headache, abdominal pain and memory loss in addition to the shortness of breath.

If a high level of lead is found in the blood, the source of the lead needs be found and removed. It could be lead in paint, lead solder in the plumbing system, breathing too many exhaust fumes etc. If the source is removed blood levels will start to decrease automatically. In severe cases, chelation is used to remove excess lead. Chelation is the intravenous administration of a liquid agent, which will bond with the lead and eliminate it through excretion.

Once again, I've learned a lot! After reading this, Betty should be able to discuss it more clearly with her doctor.

<http://www.mayoclinic.com/health/lead-poisoning/FL00068/DSECTION=2>
http://www.healthinaging.org/public_education/pef/short_breath.php
<http://www.mayoclinic.com/health/pulmonary-hypertension/DS00430>
http://www.acponline.org/public/h_care/4-short.htm#13
<http://www.mothenature.com/Library/Bookshelf/Books/16/31.cfm>
<http://www.spiriva.com/consumer/ac.jsp>

Patricia Kenworthy September 2006