The Pulmonary Paper

July/August 2011

Dedicated to Respiratory Health Care

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Transtracheal Oxygen Therapy

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Pulmonary Hypertension: Part 1

Sharing the Health

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Volume 22, No. 4

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On the cover: Dr. Richard Harris made the choice of using transtracheal oxygen and is glad he did!

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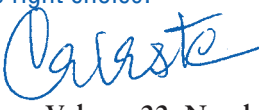
"Your life is the sum result of all the choices you make, both consciously and unconsciously. If you can control the process of choosing, you can take control of all aspects of your life. You can find the freedom that comes from being in charge of yourself."

— Robert F. Bennett

Choices are all around. You just have to be sure you know what all your options are! We hope by being a member of *The Pulmonary Paper,* we are keeping you informed on the choices you have for oxygen, medication and treatment for chronic lung disease. By discussing options with your physician and family, you will be able to make the decision that is right for you.

We tried to teach our children that you have freedom to make choices in life, but you have to be prepared to accept the consequences of those choices. My daughter Adrienne was six years old when I started writing the newsletter. She just made a choice that will determine a large part of her future happiness when she yes to Jackson, her boyfriend of three years, when he asked her to marry him! We couldn't be more happy for them and know she is making the right choice!

Adrienne and Jackson



First you tell me I have lung disease …

Now You Tell Me I Have Pulmonary Hypertension!

by John R. Goodman, BS RRT

This 2-part article was written to give you a better understanding of Pulmonary Hypertension and how it develops in patients with chronic lung disease.

Part 1: Pulmonary Hypertension (PH) Defined

Pulmonary Hypertension (PH) may be defined as high blood pressure in the arteries that go *from* the heart *to* the lungs. It is interesting to note that the definition of an artery is a "blood vessel that carries blood away from the heart." Generally arteries are high in oxygen content and the blood therein is bright red. Blood in the pulmonary "artery" however, is very low in oxygen, as it has just been pumped into the pulmonary artery by the right ventricle. The right ventricle receives all the venous blood from the lower extremities as well as venous blood draining in from the head neck, and shoulders. Venous blood returning from all parts of the body is a darker red color as the blood has released its oxygen to the billions of cells of the body. This is perfectly normal and is reflected in the normal saturation values associated with arterial and venous blood. If we consider a normal oxygen saturation (SaO_2) at sea level as right around 97%, most people would be shocked to learn that the "normal" saturation of venous blood (PvO_2) averages about 75%.

Unlike the left ventricle which must generate much higher pressures to pump oxygenated blood throughout the whole body, the right ventricle normally does not need to squeeze very hard to move the venous blood over to the lungs to pick up that all important oxygen. As an example, we can use just the upper pressure measurements to give an idea of the difference between the right side of the heart (pulmonic) and the left side of the heart (systemic).

When a physician, or nurse takes your blood pressure with a blood pressure cuff, the result is normally reported out as (for example) 120/80. The top number is called the systolic pressure and in the normal adult it *does* average about 120 mm of pressure. (We will not worry about the bottom number at this time.) This is how much pressure or force is necessary to keep the blood circulating through the millions and millions of blood vessels (including capillaries) throughout the body. Since this is a reflection of the function of the left ventricle, we simplify things to say this represents left heart function.

Going over to the right ventricle, and remembering the right ventricle only has to pump blood over to, and though both lungs, it takes much less pressure. Normal right ventricular pressure is reported as 25/15. So simple math shows us that normally pressures on the left side of the heart are almost five times higher than on the right (120 vs. 25)! Unfortunately, there is no test as simple or as easy as taking your blood pressure that can measure your right-sided heart pressures. Most commonly the information is obtained non-invasively though the use of an echo cardiogram, standard chest xray or CAT scan. Positive confirmation is made by doing a catheterization of your right heart and measuring pressures directly. This is obviously an invasive procedure, and is normally performed in a cardiac catheterization lab specifically designed for this procedure.

There are many, many **non-pulmonary** causes of Pulmonary Hypertension. If you have a specific disease or condition that you think may be related to your PH, I strongly encourage you to begin with a simple Google search. But, due to space limitations, I must limit our

Chest xray showing enlarged right heart

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Transtracheal Oxygen Therapy: How I Became a "Necker"

by Richard J. Harris, MD, FACS

I am a retired general surgeon and have been on oxygen the past nine years for COPD. I was a heavy smoker until 1980, when I quit "cold turkey." In later years, I could sense that I would have some breathing difficulties at times, but it was not until after I retired from active practice that I found it more of a struggle to play golf because of increasing shortness of breath. Ten years ago, I was seen by a pulmonologist and began oxygen use at night. I used the nasal cannula for almost seven years. The nosebleeds became so severe and frequent that I resorted to placing the cannula in my mouth. In March 2010, I had an acute infection and could feel a marked change in my ability to perform daily activities. Pulmonary function studies showed that I had a FEV1 (Forced Expiratory Volume in one second) of 35% and I was told that I would have to go on 24/7 oxygen. This presented a problem as one cannot go out in public with a nasal cannula in your mouth as it looks like a bridle!

I recalled having seen a patient years ago who was on oxygen and had a small catheter into her trachea. I scoured the internet and found Transtracheal Systems located in Denver, Colorado (www.tto2.com). I was fortunate to contact John Goodman, RRT, Executive Vice President of Technical/Professional Services *(see article on page 3)* and explained my dilemma. He felt that I would be an excellent candidate for the transtracheal catheter. I elected not to go to Denver because of the high altitude and then the odyssey began. Neither my pulmonologist nor I could find anyone nearby with the experience of having inserted the catheter by the Fast Tract technique (In 1996, a procedure called Fast Tract was developed in concert with the surgical community. It is a true surgical approach that must be performed by a qualified surgeon.) I was referred to a pulmonologist in Phoenix, AZ, who knew of a surgeon who had done the procedure multiple times and I elected to go 430 miles to have it performed.

The catheter was placed without incident. I would strongly advise that anyone desiring this procedure seek out an established and dedicated Transtracheal Team consisting of a pulmonologist, ENT surgeon, RN and a Respiratory Therapist. The catheter does require care and I find that I can accomplish changing it each night in about five minutes. Sterile technique is not required as the trachea is not sterile but harbors many bacteria and viruses that we have learned to live with. The object, however, is to observe cleanliness and not introduce any potentially dangerous organisms. The catheters are considered to be disposable medical equipment and are to be replaced every 90 days by the oxygen supplier.

The transtracheal catheter should be the first choice of anyone meeting the criteria found on the Transtracheal web page. Let me stress that it should not be considered as a last resort, but rather early on, so that the many benefits can be fully appreciated.

Right: Dr. Harris with his wife Toni. Can you find his oxygen in this picture?

There has been hesitancy on the part of pulmonologists to suggest this route of long term oxygen therapy to their patients and this is perplexing. How can a technique that is so liberating receive such little attention? Perhaps the pulmonologist has never been exposed to the phased program or perhaps it is not being considered early and is withheld until the patient is too far advanced in the course of their pulmonary disease to obtain maximum benefit from it. It should never be considered a procedure of last resort.

I have heard dire warnings from some pulmonologists about the complications of transtracheal catheters and their care. I can speak authoritatively as a "necker" – which is the name by which those of us with the catheter refer to ourselves. The transtracheal catheter is ideal for those patients who have a desire to remain active; to engage in sporting activities such as golf, tennis and swimming; who desire to travel; and most importantly, to rid themselves of the discomfort of the nasal cannula. I have had both and would never willingly return to the nasal route with the sinus infections, ear aches, nose and eye irritation, nosebleeds or displacement of the cannula during the night. The transtracheal catheter allows for true 24-hour use, whereas studies exist revealing that on average most patients use the nasal cannula for only 18 hours a day due to the problems just mentioned. Significantly, data exists to show an increase in life expectancy of about two years between 18 hour/day and 24 hour/day oxygen delivery. I know of no life threatening complications of the transtracheal catheter, and the "dire warnings" have not proved accurate, either in my experience or in the medical literature.

Dr. Harris and his granddaughter Megan

Life on oxygen should not be a chore, burdensome or uncomfortable. The transtracheal catheter has allowed me to live life to the fullest with COPD.

Dr. Harris is retired and lives in El Paso, Texas.

continued from page 3
discussion to the known relationship between pulmonary disease and the development of PH. While I normally don't like to generalize the term "lung disease," it is possible for me to do just that due to the one common denominator of all chronic lung disease. That common denominator is chronically low levels of oxygen in the blood, also known as *hypoxemia*. But, more on this later. As a quick note, you may see the terms Pulmonary Hypertension (PH) and Pulmonary Arterial Hypertension (PAH) used interchangeably. To slightly add to the confusion, both PH and PAH, have been known in the past as "secondary pulmonary hypertension." That is, heart disease that is secondary to lung disease. For all intents and purposes this is just nomenclature ***unless*** you see the use of ***PPH***. PPH has been used for many years as an abbreviation for Primary Pulmonary Hypertension. This is a rare disorder (perhaps 4–6 cases per million) where the patient is born with the disease which may show up shortly after birth, or lay lurking in the shadows to pop up later in the patient's life. Since no one really knows what causes PPH, it is better known today as Idiopathic (unknown cause) Pulmonary Arterial Hypertension (IPAH). Again, I must keep this discussion limited to PH that develops secondary to chronic lung disease.

Now that we have been introduced to the disease or condition known as PH, we can discuss how it develops. There is an old slogan in medicine that happens to be very, very true. That slogan is "the body in its infinite wisdom." What this means is that the human body has the marvelous ability to compensate for physiologic alterations that may be happening internally. A corollary to that statement might be, "the body never overcompensates." As I stated earlier, PH develops as a result of chronically low blood oxygen levels. Over the past 20 years other factors have been found that hasten the development of PH or even make it worse.

Here is where the body in its infinite wisdom comes into play. If blood oxygen levels stay low enough, long enough, the body attempts to "compensate" for this deficiency. It does so by constricting blood flow though the pulmonary arterial system. Here is what the body is thinking. Okay, I've got less oxygen in the blood flowing through both the whole body and the lungs themselves. For whatever reason (pulmonary disease), there are less oxygen molecules being made available to the capillaries responsible for transporting that oxygen throughout the body. So the body compensates by constricting (actually shrinking) these tiny blood vessels so that there is a better matching of oxygen breathed in to the blood still circulating through the lungs. The body in effect says, "Well, there is less oxygen available to pick up, so let's do a better job at matching up those sections of the lungs that are still working pretty well, by rerouting blood flow preferentially to those units." Truly, this is an example of the "body in its infinite wisdom" at work.

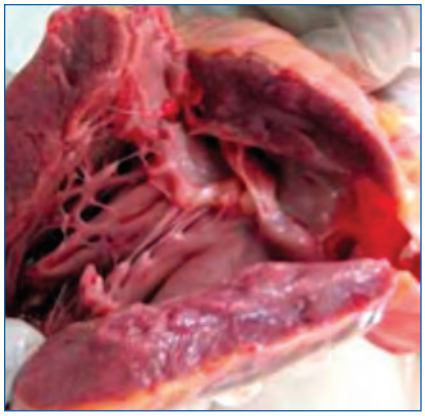
From the body's perspective, this will have the effect of making sure the highest percentage of lung units will be functioning at their optimal best. Makes sense, doesn't it? However, as we all know there are no free lunches in life. In this case making things better for the lungs can make things worse for the heart. We start the explanation by asking an obvious question – What is the difference between a drinking straw and a garden hose?

The answer to all of us is both simple and obvious. It is, of course, the diameter. You don't have to be a hydraulic engineer to figure out that it is a heckuva lot easier to pump a fluid (like blood) through a series of garden hoses than it is through a bunch of drinking straws. This can be further complicated by the fact that chronic hypoxemia can also cause the blood to become thicker than normal. In another example of the body compensating for a chronic condition, more red blood cells are released into the bloodstream in order to "deliver" more oxygen to the cells of the body. If this condition goes on long enough, the viscosity of the blood goes from something like tomato juice to ketchup! This is reflected in your blood work as elevated Hemoglobin and Hematocrit levels.

Now is a good time to remember that the right side of the heart is the low pressure side. Since less pressure has to be generated, the muscular wall of the right ventricle is thinner and does not pump with as much force as the left ventricle. This means the right ventricle is much more subject to resistance downstream. Well, where is downstream from the right ventricle? That's right, the lungs. So first we have the constriction of the pulmonary arteries due to chronic hypoxemia, and then there may be the double whammy of having to pump thicker blood.

The Body Can Only Compensate So Much

Even the body in its infinite wisdom has limits to how much it can compensate for a chronic condition. At first



Left: This picture illustrates just how enlarged the right ventricle (bottom area of photo, left to right) can become. Normally the muscle wall is just 2–3 mm thick. Here we see it is 3 to 4 times thicker than normal.

the muscular wall of the right ventricle tries to keep up with the rising pulmonary pressures. Like any muscle that is exercised, it actually gets larger and for a period of time pumps with more force. The right side of the heart does make a valiant effort to keep up with the rising pressure.

To quickly review, the normal pressure in the main pulmonary artery is most commonly given as 25/15. (There may be some quibbling as to the exact numbers, but overall we can use this figure.)

If you look closely at the two illustrations (upper right), you can see what the end result will predictably be as the narrowing of the pulmonary artery(s) continues, the right ventricle enlarges to a point where it starts to become dysfunctional. If this "back pressure" continues unabated, it can cause fluid to back up throughout the entire circulatory system. This puts further strains on both the left and right sides of the heart, and you can see how a vicious cycle is created … and this cycle can lead to some very serious consequences including heart failure.

Like many diseases, PH is classified according to the Pulmonary Artery Pressure (PAP) measurement as follows:

Mild PH = a PAP of 26–34 mm of pressure.

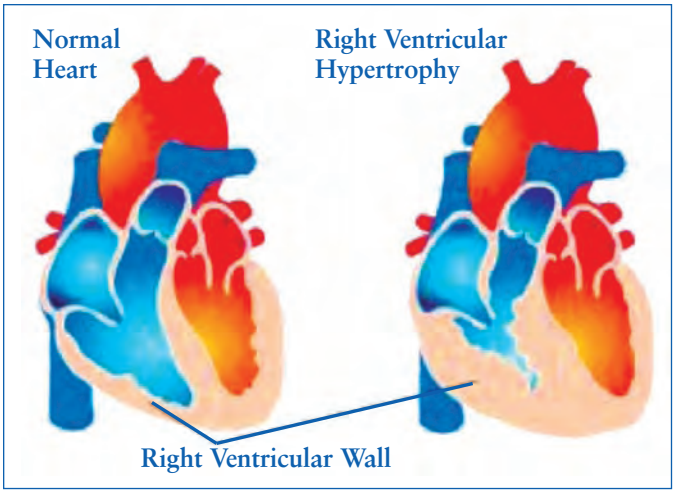
Moderate PH = a PAP of 35–44 mm of pressure.

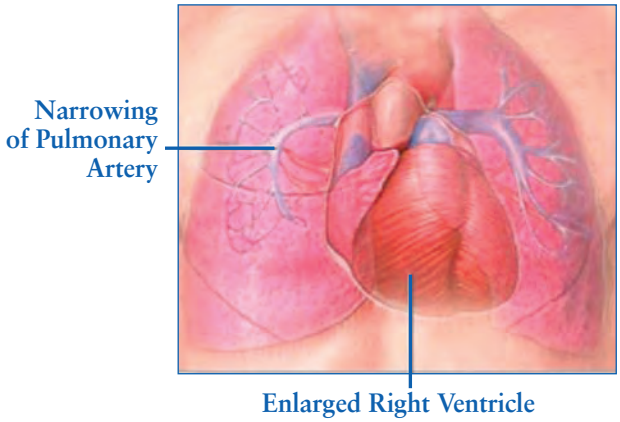
Severe PH = a PAP of 45 mm or greater.

Common Signs and Symptoms of PH Include:

- Dyspnea (shortness of breath), both at rest and seen especially with exertion. This usually starts slowly and gets worse over time.
- Dizziness, perhaps suddenly passing out.
- Lethargy or fatigue.
- Chest pain; cough; swelling of the ankles or legs.

With this checklist of signs and symptoms, it is easy to see why your doctor must order a number of tests to either rule in PH, or rule PH out and some other condition in as the cause of the symptoms. Even then, your doctor must have a pretty high suspicion of PH in order to both make the correct diagnosis and not miss some other "sneaky" conditions such as pulmonary emboli (blood clots) in the lung, interstitial lung disease, certain forms of heart or heart valve disease, connective tissue disease and even sleep disordered breathing.





Once all of the blood work, echo cardiograms, radiologic testing, ECGs, and exercise testing is performed, your doctor will have a pretty good idea if you indeed have PH. These are all non-invasive tests that get a patient into the "ballpark." Your doctor may well want to be positively sure of the diagnosis by having you undergo a cardiac catheterization. This is an invasive procedure where a small catheter is inserted into one of your larger veins and then advanced into the right side of your heart. Measurements made here are exact and you can be quickly classified as mild, moderate or severe PH.

Part 2 in the September/October issue will discuss treatments for PH.

John Goodman RRT is Executive Vice President of Technical/Professional Services at Transtracheal Services, Denver, CO.

Lower the Stress on Your Lungs by Taking Precautions with Summer Heat and Air Pollution

Dr. Martin Garcia-Bunuel, deputy director of the Managed Care Clinical Center at the VA Maryland Health Care System, offers tips for people with lung disease to breathe easier in summer through an Internet press release.

Summer heat, spikes in pollution, fires, smoke and other events causing poor air quality makes breathing a challenge for people with compromised lungs. The Center for Disease Control and Prevention reports that between 1979 and 2003, more than 8,000 people died from heat than died from hurricanes, lightening, floods, and earthquakes combined.

COPD sufferers have inflamed and irritated airways, and breathing hot air can worsen this, causing bronchospasm, further decreasing the size of the airways and making it more difficult to get air into or out of the lungs.

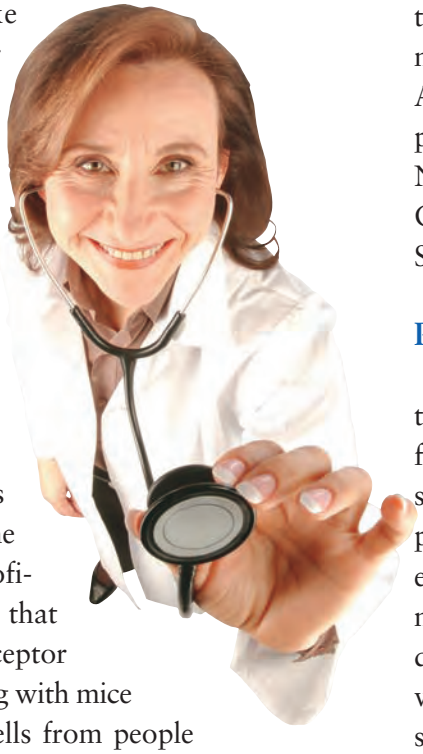
Tips for Breathing Easy in Summer

- **Use the buddy system:** During hot months, make sure to have friends or family members call at least twice per day to make sure you are okay. If you don't have a phone, be sure to ask neighbors to stop by your home each day.
- **Plan Activities:** If possible, stay indoors. If you must go outside, do so early in the morning or after the sun goes down. When driving, park in shady areas and use sun protectors in your car.
- **Drink plenty of fluids:** During hot months, increase fluid intake regardless of activity level or thirst. Drinks such as water, fruit and vegetable juices are best. Avoid drinks with caffeine and alcohol.
- **Keep your indoors cool:** If possible, stay indoors in an air-conditioned building. If you don't have air conditioning, plan to go to places that do, such as libraries, a shopping mall, or a friend or family member's house. Take cool showers or baths to lower body temperature and avoid activities that require extra energy.
- **Wear appropriate clothing:** Choose light weight, light colored, loose fitting clothing. Avoid getting tanned or sunburned because it is more difficult for your body to cool itself if it's sunburned. Wear sunscreen every day, whether you are planning to be in direct sunlight or not.
- **Listen to the news:** The local news will broadcast heat alert codes for your area. Those code alerts will tell you whether you must stay in due to poor air quality or high temperatures. If the code alert indicates too-high temps for breathing easy, ask a neighbor, friend or family member to run errands.
- **Keep an adequate supply of medications on hand:** In case of bad weather conditions, keep an emergency supply of oxygen, antibiotics and steroids to treat any exacerbations at home.

Dr. Bauer has gone fishing and will be back next issue. He wishes everyone a happy, healthy summer!

Fibrosis File

New Discovery May Lead to Treatments in PF



Researchers at Duke University Medical Center discovered an invasive cell that leads to pulmonary fibrosis may be stopped by cutting off its supply of sugar. The results were published in a recent issue of *Journal of Experimental Medicine*.

The Duke researchers identified a receptor on the invasive cells called myofibroblasts and an enzyme that produces a sugar the receptor recognizes. Experimenting with mice and later with human cells from people with Interstitial Pulmonary Fibrosis (IPF), the researchers reduced lung fibrosis in living mice. Dr. Paul Noble explains the process of fibrosis in the lung is like a healing wound on skin. The fibrotic cells clamp down, pull in the skin, and hold it together more tightly. In the lungs, this clamping down of small airways leads to irreversible loss of lung function. The new research results raise hope that more effective ways to treat pulmonary fibrosis are on the way!

New Phase III Trial of Pirfenidone Started

InterMune has enrolled the first of 500 patients in its new phase III trial to continue to check the safety of Pirfenidone in people with Idiopathic Pulmonary Fibrosis (IPF.) It will be known as the ASCEND trial. The FDA had requested further proof of the safety of the IPF drug Pirfenidone that will be marketed as Esbriet.

The ASCEND study will be conducted at centers in the United States, Mexico, South America, Australia and New Zealand. Data should be available by the end of 2012. Further information can be found at www.clinicaltrials.gov – Identifier NCT01366209.

Contact Your Representative!

The Pulmonary Fibrosis Research Enhancement Act (PFREA) was introduced July 12, 2011, in the Senate by Senators Chris Coons (D-DE) and Mike Crapo (R-ID) and in the U.S. House of Representatives by Rep. Erik Paulsen (R-MN) and Rep. Tammy Baldwin (D-WI). The PFREA would increase federal funding of research in PF and fund the creation of a national PF patient registry. It would also mandate the creation of a National PF Education and Awareness Plan to focus on strategies to improve public awareness of PF and calls for establishment of a National PF Advisory Board. Urge your member of Congress to co-sponsor House bill H.R. 2505 and Senate bill S.1350 now!

Possible Help to Ease Symptoms of IPF and COPD

Larry Griffin of California was trying to help his friend that has IPF. He discovered Virapress, which is a liquid formula that its company claims to balance the immune system and ease symptoms of IPF and COPD with positive results. The company notes Virapress has not been evaluated by the Food and Drug Administration and is not intended to diagnose, treat, cure or prevent any disease. For more information, you may visit www.virapress.com. A bottle containing a 60-day supply is $70, shipping charges for 1 to 5 bottles is $14.95. We at *The Pulmonary Paper* do not endorse Virapress but bring this to you as a natural supplement option and welcome any experience you have with the product.

Upcoming Events

First Annual IPF Summit Scheduled in December

The Pulmonary Fibrosis Foundation is presenting the first annual IPF Summit: From Bench to Bedside, December 1 to 3, 2011, in Chicago, Illinois. Sessions for those with IPF will be free of charge and held on Saturday, December 3. For more information, visit www.ipfsummit.org or call 1-888-733-6741.

PF Awareness Week Slated for September

The Coalition for Pulmonary Fibrosis announces that PF Awareness Week will be held September 18–23, 2011. Visit www.coalitionforpf.org or call 1-888-222-8541 for more information.

Ask Mark …

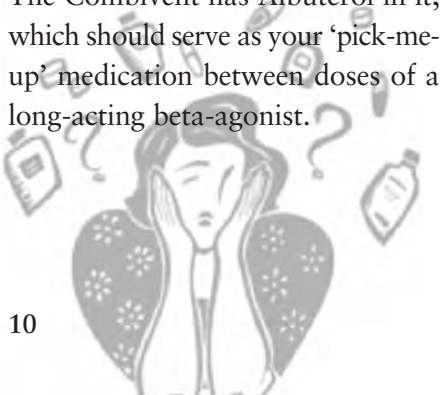
Mark Mangus, RRT
EFFORTS Board

Sally from Missouri asks Mark: I hope this is not too silly of a question but, if one side of your nose is totally stopped up, are you receiving only half the oxygen you are breathing in?

Mark thinks, It's possible. Measuring your oxygen saturation would determine if the oxygen flow you are getting is sufficient. Usually, only a completely blocked nasal passage will significantly affect the oxygen you are receiving.

Sally from Kentucky would like to know how long she should wait to use Combivent after taking Spiriva.

Mark says, You can take the Combivent anytime later than 30 minutes after taking the Spiriva. Assuming you are also on a long-acting beta-agonist (Foradil or Salmeterol or Brovana) you should use the Combivent only "as needed". The Combivent has Albuterol in it, which should serve as your 'pick-me-up' medication between doses of a long-acting beta-agonist.



John Grub of Enola, PA says his physician gave him both Dulera and Symbicort to try in place of Foradil. In what sequence should they be used with Spiriva and Pro Air?

Mark says, Both Dulera and Symbicort are preparations containing Formoterol (the generic of Foradil) plus an inhaled corticosteroid (Dulera – Mometasone, and Symbicort – Budesonide). They may indeed give you more effective bronchodilation than Formoterol did alone.

Take Dulera or Symbicort first thing in the morning, followed by Spiriva. Twelve hours later, take your PM dose of Dulera or Symbicort. Use the Pro Air (Albuterol) only as needed and not sooner than 30 minutes after taking Dulera or Symbicort nor within two hours before the next dose of Dulera or Symbicort.

F.G. asks, I am on new medication and am hoping Mark can tell me in what order I should take them: Xopenex (Levalbuterol) four times daily, Pulmicort (Budesonide) twice daily, Spiriva (Tiotropium) once daily, and one Daliresp (Roflumilast) pill a day.

Mark advises, All four are different kinds of medications that will not conflict with one another.

Take Daliresp and Spiriva in the morning, after doing the first Xopenex dose. Take the Xopenex every four hours, if taking only while awake.

If awakening during the night, try to keep the Xopenex every six hours. Follow the morning Xopenex and Spiriva and the evening Xopenex with your two daily doses of Pulmicort.

Jay from EFFORTS relates, I had a reaction to Mucinex about four hours after I took a slow release tablet. I lost my vision, became pale and sweaty and had chills for about two hours. Is this common?

Mark replies, Your symptoms sound atypical for any potential side effects from Mucinex (Guaifenesin). The chemical formula for Guaifenesin is glyceryl guaiacolate and acts only on the airway cells that produce mucus. It serves to increase the volume of mucus by pulling water into the mucus layer and reducing its viscosity (thickness/stickiness) when accompanied by sufficient fluid intake.

If you are diabetic or taking blood pressure medications, the likelihood of side effects occurring from those is far greater than would ever be the case with Mucinex. While I'm not suggesting you should try taking Mucinex again, I would strongly advise you to look further for potential side effects from other medications you may be taking or other causes altogether.

I'm confident in telling you that the Mucinex did not cause your sight changes and other symptoms. If you were truly allergic to Mucinex, your symptoms would have lasted much longer than two hours. Low blood sugar, on the other hand could easily give you those symptoms and last only two hours.

My message to you is one of concern that you are still at risk for such symptoms recurring.

Mark Mangus RRT, BSRC, is a member of the Medical Board of EFFORTS (the online support group, Emphysema Foundation For Our Right To Survive, www.emphysema.net). He generously donates his time to answer members' questions.

Sharing the Health

Receive a Free One Year Membership
Contribute a picture or tip on how you COPE with COPD! Send to The Pulmonary Paper, PO Box 877, Ormond Beach, FL 32175. Include your name/address.

Nickolas, my 8-year-old grandson, is God's gift to me to keep on living! We seem to radiate happiness from each other whenever we are together. I hope everyone is as at peace with themselves as I try to be. **Donna Shibovich, Palatine, IL**

Marje from California tell us Clean Life Products provides a line of "No Rinse" bathing, hair and skin care that can save you a lot of energy. "I use a washcloth and run it over my hair to remove the excess and then reapply the shampoo. You can bathe without going near a tub," states Marje.

They also have a line for your pets and have sent their products to our armed forces. For more information, visit www.norinse.com.

White powder frequently accumulates around my ProAir inhaler. I try to have extra plastic parts on hand that are clean that I can put the medication canister in so it will be ready to use when I need it.

Helen Dodson, Olney, MD

The Mary Sand Clinic, a unique pulmonary rehabilitation and resource center for those with COPD, is located in Auburndale, FL. What makes it unique, is since 1971, the Mary Sand Clinic has provided free services for those with pulmonary problems. They are supported by the voluntary donations of those who participate and their friends. Participant Peggy Riley is very proud of the program. The clinic's primary focus is to help clients continue the rehabilitation process that was started in the hospital. They also provide support groups for both patients and their families. We salute Manager Sherry Roth RN for making a difference to those who attend!

Jack Oliver of Illinois recommends RoEzIt cream that he found on the Internet at www.roezit.com to relieve irritation from his cannula. Bettiann Williams of Wisconsin also writes that she was getting sore spots behind her ears from wearing a cannula. She took one square of bathroom tissue and rolled it up to look like a very thin coil. It solved the problem when she put it behind her ears!

Do You Have a Pet?

You may find your four-legged or feathered friend may have some health benefits as well as giving you unconditional love! Studies have found that:

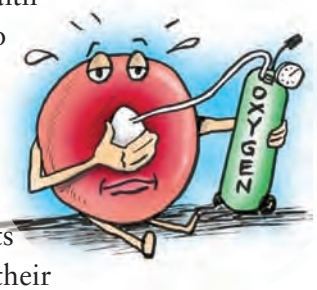
- Pet owners are less likely to suffer from depression than those without pets.
- People with pets have lower blood pressure in stressful situations than those without pets.
- Playing with a pet can elevate levels of serotonin and dopamine which calm and relax.
- Pet owners have lower triglyceride and cholesterol levels (indicators of heart disease) than those without pets.
- Heart attack patients with pets survive longer than those without pets.
- Pet owners over age 65 make 30 percent fewer visits to their doctors than those without pets.
- A pet doesn't have to be a dog or a cat. Even watching fish in an aquarium can help reduce muscle tension and pulse rate.

I was trying to help my friend quit smoking and found new research that showed text messages help! A study published in the June 29 issue of Lancet *found quit rates doubled at six months when people sent supportive notes and encouragement. As a participant in the study, the person working on quitting could also text the word "crave" or "lapse" and get help right away. We are going to try this!* **Megan Kelvie, Rochester, NY**

Traveling News

Conference Highlights Concerns

A recent conference on long term oxygen therapy brought health professionals together to discuss the problems facing oxygen users today. One of the most common complaints the suppliers had was they feared their clients were trying to conserve their supply in tanks or battery time of portable oxygen concentrators and letting their oxygen saturations go too low as a result. Manufacturers continue to improve their products, hoping for an oxygen device that will automatically increase and decrease flow in response to your oxygen saturation levels.



Wearing her oxygen, Ann Ottati from California stands next to a cigarette advertisement in Germany.

Will You Need Supplemental Oxygen during Your Airline Flight?

Normal driving pressure of oxygen in room air at sea level is 159 millimeters of mercury (mm of Hg.) Most airline cabins are pressurized to 8,000 feet or below, making the oxygen driving pressure almost 30% lower at 118 mm Hg. Normal reactions to the lower oxygen pressure include headache, fatigue and mild dehydration and a drop in oxygen saturation of 4%. For the person with respiratory problems, this may be significant.

Your physician may order a HAST (High Altitude Simulation Test), which involves breathing a 15% oxygen mixture to mimic being at high altitude (room air contains 21% oxygen.) Your blood will be drawn to see if your oxygen level drops. You may also go through a walking test to see if your oxygen drops. Make sure you let your physician know of your travel plans and discuss your need for supplemental oxygen!

Kristal Bennett of ND wants you to know any disabled person can get a free lifetime access pass to our national park –just inquire at any park entrance.

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May 4, 2012: *Holland America's Eurodam*
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August 4, 2012: *Holland America's Westerdam*
See Alaska on this 7-day Alaskan Explorer cruise from Seattle, WA

October 13, 2012: *Holland America's Veendam*
Marvel at Fall's beauty on a 7-day Canada & New England Discovery cruise from Montreal, Canada, returning to Boston, MA

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Medication News

The Food and Drug Administration (FDA) gave approval to a 75 mcg dosage of the inhaled drug, Indacaterol – a once-a-day, long-acting bronchodilator for treating COPD. Indacaterol is already sold in Europe under the brand name Onbrez Breezhaler at 150 mcg. It is scheduled to be available from Novartis in the U.S. as the Arcapta Neohaler in the first part of next year.

Almirall, S.A. and Forest Laboratories have announced the submission of a New Drug Application to the FDA for aclidinium bromide, a long-acting medication developed to open the airways of those with COPD. The drug will be given as a dry powder inhaler.

CDC Reports Rise in Asthma Cases in U.S.

The Centers for Disease Control reports a 12.3 percent rise in U.S. asthma cases since 2001, and nearly one in 12 Americans are diagnosed with the disease. Most asthma sufferers can eliminate their symptoms if they take prescription drugs such as inhaled corticosteroids, and if they can "modify their environment to reduce or eliminate exposure to allergens and irritants," the CDC said.

Seriously, Do We Need A Product Like This?

The first dissolvable tobacco product was a lozenge called Ariva that debuted in 2001. Ten years later, the tobacco companies are test marketing new products to get you addicted – dissolvable tobacco sticks and tobacco strips. RJ Reynolds has Camel Orbs – a pellet of finely cured tobacco, binders and flavorings. They dissolve in your mouth within minutes, providing a nicotine hit.

The tobacco company says they have "fewer" cancer causing chemicals and no second hand smoke. What more can we ask for?

Amazing Savings Through Strong Policies

An American Cancer Society report states we could save as many as 2 million lives and as much as $2 billion in health care costs by adopting strong tobacco control policies.

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Respiratory News

Annually changing flu vaccines may be a thing of the past when a single, near-universal flu vaccine becomes available! Scientists describe an antibody that, in animal tests, can prevent or cure infections from a broad variety of influenza viruses, including seasonal and potentially pandemic strains. The findings were published in the journal *Science Express*. Tests in human volunteers with the antibody are about to begin.

Allegra allergy relief products have recently been made available without a prescription. The U.S. Food and Drug Administration (FDA) has approved over-the-counter status for Allegra 12- and 24-hour tablets for those age 12 years and older.

For the first time in history, a patient has been given a new trachea made from a synthetic scaffold seeded with his own stem cells. The patient, a 36-year-old man, is well on the way to full recovery. The operation was performed in Huddinge, Stockholm, Sweden.

A new study in *Science Daily* gives us another reason to get moving! Research suggests regular exercise may be a useful strategy for helping prevent the development of panic and related disorders.

Long term, regular use of 600 mg of vitamin E in women 45 years of age and older may help decrease the risk of COPD by about 10 percent in both smokers and nonsmokers, according to a study conducted by researchers at Cornell University and Brigham and Women's Hospital. However, since vitamin E supplements are known to have detrimental effects in some people, such as an increased risk of congestive heart failure in those with heart disease, broader recommendations would need to balance both benefits and risks.

Researchers at the University of Texas Southwestern Medical Center found a gene linked to emphysema can also be a factor for developing lung cancer unrelated to cigarette smoking.