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# Living with COPD



## Is surgery safe for COPD patients?

**A**ny type of surgery involves risks. The combination of COPD and anesthesia can be an extremely risky business. There is also a significant risk of post-operative complications, especially within the lungs. But this doesn't mean that COPD patients should never have surgery.

Identifying risks early in the pre-operative period starts with a thorough history and physical examination, an important part of the process to mitigate risks. Things that your doctor may question you about in the pre-op period include:

- *Your exercise tolerance, especially climbing hills and stairs*
- *If, and how often, you've had exacerbations of your COPD*
- *Have you ever been hospitalized for exacerbations?*
- *Have you ever needed mechanical ventilation to help you breathe?*
- *Your smoking history*
- *Do you currently have a cough or high sputum production (both have been associated with a higher risk of post-operative complications)?*
- *Any other illnesses, or an active lung infection?*
- *Your nutritional status—patients who are both underweight and overweight are at increased risks.*

### Pre-operative Testing

Before having surgery, your doctor may order any or all of the following tests:

**Chest X-ray**—helps to identify

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## Chronic Obstructive Pulmonary Disease Strengthen muscles, build endurance by walking

Walking helps to strengthen muscles and build endurance — and it also has a positive impact on self-esteem

**W**alking is a low-impact exercise, places minimum stress on the joints, and is generally an easy exercise to perform. Walking helps recondition your muscles, improves your well-being and allows you to become more self-sufficient. As you build endurance, breathing at rest or during activity will become easier, and you will increase your exercise tolerance. For people with COPD (who expend extra energy just to breathe) walking regularly can improve the body's ability to utilize oxygen.

First of all, start out slow and easy. Just walk out the door. For most people this means head out the door, walk for ten minutes, and walk back. Do this every day for a week. If this was easy for you, add five minutes to your walks next week (up to a total walking time of 25 minutes). Keep adding five minutes until you are walking as long as desired, without over-doing it.

Watch your posture. Walk tall (you don't have to carry a big stick, but a walking pole may help). Think of elongating your body. Try to hold your head up and eyes forward. Your shoulders

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### Ask Dr. Bourbeau

Jean Bourbeau is a respirologist and full professor in the Department of Medicine and Epidemiology and Biostatistics, McGill University, Montreal



### Q Is getting the high dose flu vaccine worthwhile?

**A** Older Canadians suffer disproportionately from flu-related morbidity and mortality. Adults 65+ represent 15% of the Canadian population. However, during influenza season they account for 70% of the hospitalizations. Complications of influenza often result in COPD exacerbations which can then trigger heart attacks and stroke.

Influenza-attributed death is 12 times greater among those 65+ who also have a chronic lung disease. The National Advisory Committee on

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**Continued from Page 1** Immunization (NACI) recommends that those aged 65+ receive a flu vaccine each year. New high-dose trivalent influenza vaccines, specifically for the elderly, have been introduced to Canada. A recent study concluded that the new high-dose influenza vaccine significantly reduced hospital visits for the elderly.

Currently, only Manitoba provides free access to these high-dose flu vaccines—specifically for nursing home residents—who have the greatest mortality risk from influenza of all Canadians. The Ontario government recently announced that in 2018 they will begin paying for the high-dose flu vaccine for people over 65.

## **Q** Why do I need a flu vaccine every year?

**A** A flu vaccine is needed every season for two reasons. First, the body's immune response from vaccination declines over time, so an annual vaccine is needed for optimal protection. Second, because flu viruses are constantly changing, the formulation of the flu vaccine is reviewed each year and sometimes updated to keep up with changing flu viruses. For the best protection, everyone six months and older should get vaccinated annually.

## **Q** Does the flu vaccine work right away?

**A** No. It takes about two weeks after vaccination for antibodies to develop in the body and provide protection against influenza virus infection. That's why it's better to get vaccinated early in the fall, before the flu season really gets underway.

## **Q** Can I get seasonal flu even though I got a flu vaccine this year?

**A** Yes. There is still a possibility you could get the flu even if you got vaccinated. The ability of flu vaccine to protect a person depends on various factors, including the age and health status of the person being vaccinated, and also the similarity or "match" between the viruses used to make the vaccine and those circulating in the community. If the viruses in the vaccine and the influenza viruses circulating in the community are closely matched, vaccine effectiveness is higher. If they are not closely matched, vaccine effectiveness can be reduced. However, it's important to remember that even when the viruses are not closely matched, the vaccine can still protect many people and prevent flu-related complications. Such protection is possible because antibodies made in response to the vaccine can provide some

protection (called cross-protection) against different but related influenza viruses.

## **Q** Can the flu vaccine give me the flu?

**A** No, a flu vaccine cannot cause flu illness. Flu vaccines that are administered with a needle are currently made in two ways: the vaccine is made either with a) flu vaccine viruses that have been 'inactivated' and are therefore not infectious, or b) with no flu vaccine viruses at all (which is the case for recombinant influenza vaccine). The nasal spray flu vaccine does contain live viruses. However, the viruses are attenuated (weakened), and therefore cannot cause flu illness. The weakened viruses are cold-adapted, which means they are designed to only cause infection at the cooler temperatures found within the nose. The viruses cannot infect the lungs or other areas where warmer temperatures exist. While a flu vaccine cannot give you flu illness, there are different side effects that may be associated with getting a flu shot. These side effects are mild and short-lasting, especially when compared to symptoms of a bad case of flu. Some minor side effects that may occur are; soreness, redness, or swelling where the shot was given, fever (low grade) and aches.

## **Q** What's the difference between the flu and influenza?

**A** There is no difference. Flu is a short form used to describe influenza. The "flu" is often mistaken for the common cold since many of the symptoms are the same. However, the flu is significantly more serious than a cold. The symptoms of flu can include fever or feeling feverish with chills, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches and fatigue. Cold symptoms are usually milder than the symptoms of the flu. People with colds are more likely to just have a runny or stuffy nose. The "flu" (or influenza) can result in serious associated complications such as pneumonia and bacterial infections sometimes resulting in hospitalization and death.

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*We invite your questions. Please mail questions to Ask Dr. Bourbeau c/o COPD Canada, 555 Burnhamthorpe Rd., Suite 306, Toronto, Ont. M9C 2Y3. Or you can e-mail questions to: AskCOPDCanada@gmail.com*

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Canada Post Canadian Publications Mail Sales Product Agreement Number 40016917

Please forward all correspondence on circulation matters to: Chronicle Information Resources Ltd., 555 Burnhamthorpe Road, Ste 306, Toronto, Ont. M9C 2Y3

**Living with COPD** is published for COPD Canada by Chronicle Information Resources Ltd.

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# Pulse: News about COPD

## More healthcare workers get flu shot when employer requires it

■ **Milan, Italy/** Most healthcare personnel received a flu shot during the 2016–2017 season, with the highest coverage among those who worked at hospitals, Centers for Disease Control and Prevention (CDC) researchers found. While more than three-quarters of healthcare personnel reported receiving the influenza vaccination, that number jumped to 92.3% of all healthcare professionals working in hospitals, reported Carla L. Black, PhD, of the CDC's National Center for Immunization and Respiratory Diseases. Lower coverage was observed among healthcare personnel working in long-term and ambulatory care settings, and in healthcare facilities where the employer did not provide or recommend vaccination coverage. Influenza vaccination in long-term care settings is especially important because influenza vaccine effectiveness is generally lowest in the elderly, who are at increased risk for severe disease, and it confers health benefits to patients, including reduced risk for mortality.

 <http://tinyurl.com/yb9zx31h>

## U.S. FDA approves first triple therapy for COPD

■ **London/** The U.S. FDA has approved Trelegy Ellipta, a once-daily, single inhaler triple therapy fluticasone furoate/umeclidinium/vilanterol (FF/UMEC/VI) for the long-term, once-daily, maintenance treatment of patients with COPD, according to a press announcement from GlaxoSmithKline and Innoviva Inc. Trelegy Ellipta is a combination of an inhaled corticosteroid, a long-acting muscarinic antagonist (LAMA), and a long-acting beta2-adrenergic agonist (LABA), delivered once-daily in GSK's Ellipta dry powder inhaler. It is the first once-daily product approved in the U.S. that combines three active molecules in a single inhaler for the maintenance treatment of appropriate patients with COPD. Regulatory applications are undergoing assessment in a number of other countries, including the European Union, Australia and Canada.

 <http://tinyurl.com/ybrofru9>

## Rheumatoid arthritis risk factor for COPD

■ **Boston /** Analysis of data from the prospective Nurses' Health Study (NHS) found that women with rheumatoid arthritis (RA) were at increased risk of developing chronic obstructive pulmonary disease (COPD) independent of smoking. The lung is important in RA, with roles in both pathogenesis and clinical manifes-

# Pulse: News about COPD

tations. Inflammation in the bronchiolar mucosa may be an initial trigger for immune tolerance breakdown that leads to the formation of RA-related autoantibodies, perhaps years prior to the clinical onset of RA. Smoking and other environmental triggers also have been implicated in RA pathogenesis, and individuals who smoke and have a genetic predisposition may be particularly susceptible to immune system disturbances in the airways.

 <http://tinyurl.com/yc63smv9>

## Pollution causing more deaths worldwide than war or smoking

■ **London** / According to a major study released in the Lancet medical journal, environmental pollution—from filthy air to contaminated water—is killing more people every year than all war and violence, more than smoking, hunger or natural disasters, and more than AIDS, tuberculosis and malaria combined. One out of every four premature deaths in India in 2015, or some 2.5 million, was attributed to pollution. China's environment was the second deadliest, with more than 1.8 million pollution-related deaths, or one in five, the study found. The financial cost from pollution-related death, sickness and welfare is equally massive, the report says, costing some \$4.6 trillion in annual losses—or about 6.2% of the global economy. The report's authors gave Alberta's oil sands and Ontario's chemical valley, home to 40% of the country's chemical manufacturing, as Canadian pollution hotspots.

 <http://tinyurl.com/y823efys>

## Canada braces for a rough flu season

■ **Ottawa** / Health officials in North America are bracing for a miserable flu season. A rough flu season in the Southern Hemisphere could be a warning sign of what's in store for Canada in the next few months. In Australia, the 2017 flu season is possibly the worst on record, with nearly three times the number of confirmed flu cases compared to 2016. According to a report from the Public Health Agency of Canada, the flu is currently inter-seasonal, but several indicators show above expected levels compared to previous seasons. Flu season in Canada typically runs from November to March. In early September, the majority of influenza cases in Canada came from a virus known as H3N2. That virus is historically linked to heavier flu seasons and is known to be particularly hard on seniors.

 <http://www.copdcanada.info/47.html>



# Bulky breathing

Since carrying around excess weight increases the work of breathing, there is a direct association between obesity and shortness of breath, or dyspnea, which is also recognized as one of the hallmark symptoms of COPD. It makes sense then that when COPD is coupled with obesity, COPD symptoms and, in particular, breathlessness, worsen. Obesity plays a significant role in COPD even though it is not considered a risk factor in developing the respiratory disease.

Obesity is strongly associated with a decrease in exercise tolerance. Along with the health problems associated with inactivity, being unable to exercise can severely impact one's quality of life. The prevalence of diabetes among patients with COPD is estimated at between two to 16%.

Both COPD and obesity are conditions that are common in the North American population. This may be attributed to people with COPD leading more sedentary lifestyles, which is why starting a diet and an exercise program are so important.

## Weight reduction is key

Weight reduction, whether you are just overweight or obese, is an important health strategy for people with COPD. Weight loss can be achieved through a combination of diet, an increase in physical activity and (sometimes) medication. Many times, weight loss programs are ineffective for COPD patients who are inactive because of their illness and can't easily comply with recommended exercise programs. Incorporating pulmonary rehabilitation into your COPD treatment plan will expose you to an exercise regime and then, hopefully, make a regular exercise program easier to incorporate into your life.

Exercise, at any level, improves the oxygen utilization, work capacity, and state of mind of COPD patients. Low-impact activities place minimum stress on joints and are easier to perform than high-intensity activities. Some COPD patients may also benefit from exercise programs that target the upper body and are designed to increase strength of the respiratory muscles.

Weight reduction can help reduce dyspnea, increase exercise tolerance and improve your quality of life. Additional health benefits of weight loss include: an increased energy level, a reduction of cholesterol levels, a reduction in blood pressure, and a reduction in aches and pains. As well, weight loss improves mobility, and can prevent or reduce angina. Angina is chest pain that is often caused by decreased oxygen to the heart. Weight loss can also help to prevent Type 2 diabetes by improving blood sugar levels.

Losing weight can be challenging, especially if you have COPD. But, consider that the benefits of weight loss and exercise are numerous. As a COPD patient, you already know you expend extra energy just to breathe. If you can use your energy more efficiently for

breathing, you will have more energy left for performing routine activities of daily life—or participating in new activities. Actively practicing some form of exercise, along with proper nutrition, can significantly improve your quality of life.

## Tips for beginning an exercise program

Begin your exercise regimen by setting a goal you know you can achieve. Then, gradually set your goals higher as you progress. It's good to work up to sustaining your activity for 20 to 30 minutes two to four times a week. If you can comfortably do five minutes of exercise your first week, and then increase it to 10 minutes the next, you will probably be able to attain this 20-minute goal. As you achieve each goal, however small, you are more likely to continue your exercise program.

Exercise shouldn't be something you dread—have some fun with it. You may need to try a number of activities before you find the one(s) best suited to your lifestyle. Alternate your exercise activities such as swimming, walking, upper-body weight training, and low-impact aerobics. If you get bored, you are less likely to stick with it.

Of course, before delving into any exercise or diet program, be sure to consult your physician. If your physician approves your chosen low-impact activity, don't make excuses why you can't begin—just do it. You can perform plenty of activities while wearing a supplemental oxygen setup. Any exercise is better than no exercise at all. Start slowly, and as you begin to reap the benefits of exercise, you will soon find you want to do more.

## Not all people with COPD are overweight

Although weight loss sounds like a good thing, COPD can also result in severe weight and muscle loss. It's estimated that about one in four people with COPD are too thin—particularly during the end stages of COPD. Preventing weight loss is a major issue as the work of breathing uses a lot of calories. In general, eating more protein and getting more calories—while still keeping an eye on nutrition—is a good way to combat weight loss.

## Before making medical decisions

Your physician should be consulted on all medical decisions. New procedures or drugs should not be started or stopped without such consultation. While we believe that our accumulated experience has value, and a unique perspective, you must accept it for what it is. . . the work of COPD patients. We vigorously encourage individuals with COPD to take an active part in the management of their disease. You can do this through education and by sharing information and thoughts with your primary care physician and respirologist. Medical decisions are based on complex medical principles and should be left to the medical practitioner who has been trained to diagnose and advise.

## Surgery

continued from page 1      current lung infections or additional problems in the lungs  
**EKG**—helps identify heart problems that may increase risks of undergoing surgery  
**Spirometry**—used to both diagnose and determine the severity of COPD  
**Lung diffusion test**—tells your doctor how well oxygen passes from your alveoli to your bloodstream  
**Six-minute walk test**—helps to establish exercise tolerance  
**Arterial blood gases**—helps to identify pre-operative oxygen and carbon dioxide levels in the blood.

There may be some additional pre-operative preparation required that your doctor will discuss with you.

### Are you a candidate for lung surgery?

Most lung surgery in COPD targets emphysema. Not everyone is a candidate for lung surgery. Some people with COPD will experience fewer or less severe symptoms and be more active after surgery, but others will not benefit. Some major considerations for surgery candidates include:

- You must be strong enough to have the surgery
- You must participate in a pulmonary rehabilitation program
- You cannot be a current smoker

Some lung surgeries require that the lung damage must be in an area that is localized (a specific area) and can be removed. The decision for surgery is based on the results of many tests. Talk to your doctor to find out if lung surgery is right for you.

### Types of lung surgery

**Bullectomy** is a procedure where doctors remove one or more of the large bullae or blebs from the lungs. Bullae are large air sacs that form from hundreds of destroyed alveoli. These air spaces can become so large that they crowd out the better functioning lung and interfere with breathing. For those people, removing the destroyed air sacs improves breathing.

**Lung Volume Reduction Surgery (LVRS)** is a procedure to help people with severe emphysema affecting the upper lung lobes. LVRS is not a cure for COPD but can improve exercise capacity and quality of life. The goal of the surgery is to reduce the size of the lungs by removing about 30% of the most diseased lung tissues so that the remaining healthier portion can perform better. LVRS also can allow the diaphragm to return to its normal shape, helping you breathe more efficiently. The surgery has been shown to help improve breathing ability, lung capacity and overall quality of life among those who qualify for it.

### Lung Transplants

Sometimes COPD can cause severe damage to the lungs and your doctor may recommend a lung transplant if the damage is not repairable. Lung

transplants can improve your ability to breathe and be active. However, like any major operation, you should consider the risks and complications. These include organ rejection or needing to take immune suppressing medications and a host of other drugs, daily for the rest of your life.

Talk to your doctor for more information about how and where to receive a lung transplant evaluation.

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## Strengthen muscles

continued from page 1      should be down, back and relaxed. If you can, tighten your abdominal muscles and buttocks and fall into a natural stride. If you can, incorporate a warm up, cool down and some stretches into your routine.

Start your walk at a slow warm up pace, stop and do a few warm up/flexibility drills. Then walk for the desired length of time. End your walk with the slower cool down pace and stretch after your walk as well. Stretching will make you feel great and it will assist in injury prevention. Be sure to drink plenty of water before, during, and after walking.

The toughest thing about starting a walking program is developing the habit. Walking daily will help (a minimum of five days a week is a good goal). You should not walk so fast that you're gasping for air.

Besides just the fun of the activity, the main benefit of a regular walking program is that you will be better able to control your weight. In fact, most of us start an exercise program with the intention of losing weight. If you are overweight and have COPD, you have a two-fold problem—the extra weight tends to make it even more difficult than normal to breathe, which makes it much harder to exercise. Losing weight will help you improve your breathing at rest and during activity. Other benefits of successful weight loss include reduced risk for developing Type 2 diabetes and heart disease.

Walking is a great way to keep plugged into the neighbourhood and connected to the world around you. So, take advantage of any nice days over the coming cool months and get out there and move.

## COPD Canada's web resource

[www.copdcanada.info](http://www.copdcanada.info)

**Join Today:** The COPD Canada website is your portal to our association, new and varied educational materials, medical resources and community interaction. **Membership is free of charge** but is restricted to individuals living with COPD or their caregivers. Joining is fast and easy. Just visit our website [www.copdcanada.info](http://www.copdcanada.info) and click on membership and follow the step-by-step instructions. **Once you've joined** you will begin receiving our "Living with COPD" newsletter and will have complimentary access to all COPD Canada seminars, online discussion forums and our member chat section. **COPD CANADA, 555 Burnhamthorpe Rd., Suite 306, Toronto, Ont. M9C 2Y3. For more information contact: Henry Roberts, email: [henry.copdcanada@gmail.com](mailto:henry.copdcanada@gmail.com), telephone 416-465-6995**



# COPD people

## Ron Boychuk

Ron Boychuk was born in Kamsack, Sask. When his dad died, his mother moved to Roblin, Man. where her parents and sisters lived. Eventually he ended up in Winnipeg. While there, an opportunity came up in Brandon for a counselling position, which was a dream job for him. He always wanted to work in social services, assisting people with various issues affecting employability. After a long, successful career he retired in 2009.

Ron is married with two children. His daughter lives in Winnipeg and also works in social services. She's returned to work after maternity leave with her first child. Needless to say, the past year has given him many more joyful trips to Winnipeg. His son works in the music industry and fire towers in Alberta. Ron is involved in a number of local activities such as cancer support and air search and rescue.

As a hobby, Ron has a small orchard at his brother-in-law's farm in Calder, Sask., which is a few hours drive from Brandon. The orchard is made up of sea buckthorn trees. The fruit, produced by female trees, is harvested and sold to a company which processes them.

### How did your COPD diagnosis come about?

I thought I had a cold that just wouldn't go away. I went to my GP who prescribed a puffer but that didn't work so I was referred to a specialist who diagnosed my COPD. That was in 2010.

### Were you a smoker?

I was quite a smoker. I used to have a pack of menthol cigarettes in one pocket. Regular cigarettes in the other. When my throat got sore, I would switch to the menthol. I got fed up with the sore throat. I quit smoking on April 25th, 1982 at 9:30 p.m.

### Did you get help quitting?

There was a church program to help people quit smoking that I enrolled in. It cost only \$20 with a meal at the end.

### Are there any pulmonary rehab programs in Brandon?

There's one at the Brandon Regional Health Centre called "Best Breathers" held each Wednesday. I want to keep my COPD at bay as long as I can so I go as often as possible. A nurse and physiotherapist are on staff and provide us with an exercise routine and keep track of our oxygen levels which we record. I think this program is a "must" for anyone with COPD.

### Have you had any other health issues?

I was diagnosed with lung cancer in 2002. A portion of my right lung has been removed. My treatment was chemo and radiation to shrink things before the surgery.

### Tell us about your mask.

I was really desperate to be able to be out-

side in the winter for more than 10 minutes. The mask is called The Cold Avenger. It's a sports mask for high performance athletes—mountain climbers, high altitude skiers. With the mask, I can shovel snow and be outside for two hours or more in cold weather.

### Doesn't the mask restrict your air intake?

Not this one. It doesn't fog my glasses very often either, as there is a special foam pad for the nose. When you exhale not all of the air goes out so you have a nice warm climate inside the mask. In Brandon, it's very cold from mid-November 'til mid-March so I keep the mask in my pocket at all times during those months.

### So, it's not a rigid mask?

No, it's soft. One winter I rushed into the bank not realizing that I was wearing the mask. That was quite something. I've since learned to take the mask off before I go to the bank.

### Let's talk about your sea buckthorn orchard. How do you harvest the fruit?

You actually trim the branches laden with fruit and then freeze them. Once frozen an easy tap on the branches removes them.

### Sounds a bit like the frozen grapes they use to make ice wine.

Some people do make wine from sea buckthorn. It's a very tart berry, so it's quite difficult to make a good tasting wine.

### Do you have any help managing your orchard?

My son helps me with the harvest. To take a break we'll cut off a branch and chew on the berries. I enjoy the work, the fresh air, exercise and the time with my son.



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