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Addressing the needs of the Canadian COPD patient

Living with COPD

Chronic Obstructive Pulmonary Disease
www.copdcanada.info

The sinus-lung connection: The unified airway concept

Many people with COPD complain that they get frequent sinus infections that make their lives miserable. There's actually a well-recognized connection between chronic sinus infections (sinusitis) and lung diseases like chronic obstructive pulmonary disease, asthma, bronchiectasis, and cystic fibrosis.

Researchers and clinicians often describe the respiratory tract (from nose/sinuses to lungs) as a unified airway, meaning what happens in the upper respiratory system can affect the lower airways, and vice versa. Both sinuses and lungs are lined with similar mucosa (respiratory epithelium). Inflammation in one part often triggers or worsens inflammation in the other. Poor sinus drainage can lead to bacterial growth and infection, which in turn may cause postnasal drip, aspiration, or spreading of pathogens that can worsen lower respiratory symptoms. In COPD patients, sinus infections may:

- Trigger exacerbations (flare-ups) of lung symptoms.
- Increase cough, sputum production, and shortness of breath.
- Promote chronic colonization by bacteria like Haemophilus influenzae or Pseudomonas aeruginosa
- Add to the inflammatory burden, worsening overall lung function over time.

Consider drainage before antibiotics

There is little sense in

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Stages of COPD and the GOLD and BODE Index

There are various ways to measure COPD stages, including using the GOLD system and BODE index. There's no way to predict exact life expectancy, but doctors may use the GOLD system or BODE index to provide a more accurate assessment of a person's outlook.

The GOLD System

Researchers over the years have come up with a way to assess the health of someone with COPD. The Global Initiative for Chronic Obstructive Lung Disease (GOLD) is one of the most used systems for classifying COPD. GOLD is an international group of lung health experts who periodically produce and update guidelines for doctors to use in the care of people with COPD.

Doctors use the GOLD system to assess people with COPD in "grades" of the condition. Grading is a way to measure the

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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 I have COPD caused by 40 years of smoking. I quit seven years ago (at age 58). Now my main problem is excessive mucus. I am constantly coughing and choking. I use a nebulizer two to three times a day and Breztri twice a day. I also have a rescue inhaler. I have read that azithromycin is effective in reducing sputum volumes. Is there anything that can be done to help with this excessive mucus?

A In COPD, it is common to have increased mucus production while smoking and this is called chronic bronchitis.

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Ask Dr. Bourbeau

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When someone discontinues smoking, it is expected that the mucus production will be reduced and could clear up completely. In your case, describing constant and large amount of mucus production is not common since you quit smoking seven years ago.

Azithromycin can be used in certain conditions, usually more to reduce the risk of infectious-type exacerbation in patients with COPD and/or bronchiectasis. The use of certain mucolytic medication and/or devices such as OPEP (Oscillating Positive Expiratory Pressure device to help clear mucus from the lungs such as Aerobika) can sometimes be useful too. However, in your case, it will not be appropriate to recommend something only on the basis of your history and not having seen you and conducted a proper investigation. Your symptoms mandate a full and complete evaluation including chest CT scan to rule out other conditions such as bronchiectasis or NTM lung disease (nontuberculous mycobacterial lung disease, a chronic lung infection caused by bacteria found in the environment, not spread person-to-person).

Q **I've been told to take an antibiotic at the first sign that I'm "getting into trouble" with my COPD. Is this a good strategy? Aren't antibiotics overused?**

A Antibiotic can be necessary, but they can also be overused. Your physician should be able to explain to you if you need and when you need an antibiotic. Usually, an antibiotic will be prescribed if you have a flare up, an exacerbation-like event, with signs of infection such as increased sputum or change in the colour of the sputum. You can also access the self-management education program Living Well with COPD and refer to the module "Plan of Action" (https://tinyurl.com/5ky9hsa5)

Q **I have had COPD for years and recently my GP told me that my rising blood glucose levels suggest that I am pre-diabetic. I have read a few research articles that identify COPD as directly attributable to diabetes, primarily because of inflammation of the pancreas. Do you have any comment on this?**

A We know that diabetes mellitus (DM) and COPD are two common conditions and inflammatory diseases that often coexist but by which exact mechanism they can impact on each other remains to be shown. DM in COPD patients has been found to affect lung function and, in turn, could affect prognosis, but the impact on COPD hospitalizations and complications in terms of acute respiratory failure, stroke, and acute cardiovascular diseases need to be further studied. In any case, we should highlight the importance of better control of DM, particularly in patients who have chronic conditions like COPD, to minimize complications.

Q **I have been on oxygen for 10 years and for the first time I have had a rash under my nose and along my cheeks where the hose sits on my cheek. Recently it has worsened. It's much redder and the hose feels like sandpaper rubbing my cheeks. I tried removing my hose for a couple of days while monitoring my oxygen. The redness dissipated but came back with a vengeance when I put the hose back on. Is it possible that I'm allergic to the cannula material?**

A Skin irritation can be caused by the cannula rubbing against the skin and it is the most frequent skin side effect. However, another less common condition has been described—allergic contact dermatitis, which is what you seem to have. The reaction is believed to be related to a resin remaining in the polyvinyl chloride after the curing process in the manufacture of the plastic from which the cannula is made. Replacing the cannula with another brand could be the first step because of variability in residual resins in different brands and batches of plastics. If the problem reappears, your physician will need to refer you to an allergist.

Q **My husband is at the bottom of stage 3/start of stage 4 COPD with a 32% lung capacity. Lately, he has been experiencing lots of panic/anxiety attacks and feeling as though he is hyperventilating. He's reluctant to talk about his panic attacks. Do you have any advice I can share with him?**

A I recommend for him to be seen and enrolled in a pulmonary rehabilitation program and he could also access the self-management education program "Living Well with COPD". You can refer to the module "Managing your stress and anxiety": https://tinyurl.com/4ea53kce

We invite your questions. Please mail questions to: Ask COPD Canada, 1460 The Queensway, Suite 212, Etobicoke, ON M8Z 1S4 – or you can e-mail questions to: AskCOPDCanada@gmail.com. General inquiries: COPD Canada Tel: 416-456-0459 E-mail: exec.copdcanada@gmail.com

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Pulse: News about COPD

Getting lung cancer screening staff involved improved tobacco cessation

Houston/Integrating smoking cessation into a lung cancer screening program had the biggest benefit for patients who wanted to quit, a randomized trial showed. Self-reported tobacco abstinence was greater at both three and six months with higher levels of integration of smoking cessation assistance in the lung cancer screening program, reported Paul Cinciripini, PhD, of the University of Texas MD Anderson Cancer Center in Houston, and colleagues in JAMA Internal Medicine. Patients who received 12-week nicotine replacement therapy or prescription pharmacotherapy and counselling by tobacco treatment specialists within the lung cancer screening program had the highest rate of abstinence (37.1% at three months and 32.4% at six months). Smoking cessation counselling is already recommended for people who meet criteria for annual lung cancer screening.

https://tinyurl.com/3wy9d4bz

Will the egg shortage affect flu shots?

Nashville/While millions of vaccine doses are made using chicken eggs each year, experts say the current egg shortage won't hamper next year's flu vaccine production cycle. Previous bird flu outbreaks and decades-old public health infrastructure have led industry to protect the hens used for vaccine production, experts told MedPage Today. Moreover, flu vaccines that don't require eggs are available, and mRNA-based flu shots are in development. William Schaffner, MD, professor of infectious diseases at Vanderbilt University Medical Center in Nashville, said that during a bird flu scare about 20 years ago, “it became clear that the entire egg production had to be ... protected from wild bird contamination.” Indeed, a Sanofi spokesperson confirmed that the eggs used to manufacture vaccines are pharmaceutical grade and produced in a controlled environment. "Sanofi's network of egg suppliers utilizes biosecurity measures to protect the flocks from A/H5N1 outbreaks," the spokesperson wrote. "Our biosecurity protocols are designed to prevent pathogens from entering sites where eggs and egg-based vaccines are made," they said, adding that Sanofi maintains contingency flocks year-round.

https://tinyurl.com/yc5kr9e3

Pulse: News about COPD

Genetic risk predictor might boost detection of undiagnosed COPD

Ann Arbor, Mich./Considering a risk score generated from multiple genetic variants linked to chronic obstructive pulmonary disease (COPD) caught undiagnosed cases of the disease better than conventional risk factors and respiratory symptoms alone, a study showed. Adding the COPD polygenic risk score (PRS) to the Lung Function Questionnaire clinical risk score significantly improved the area under the curve by 0.03 to 0.06, suggesting a 3 to 6 percentage point increase in accuracy in identifying spirometry-defined, moderate to severe COPD, as researchers led by Matthew Moll, MD, MPH, of Brigham and Women's Hospital and Harvard Medical School in Boston, reported in JAMA. "The findings suggest that an individual's genetic risk for COPD, as indicated by a PRS, has a potential added value to conventional case-finding approaches for identifying undiagnosed COPD and guiding referrals for confirmatory spirometry, particularly in community-based settings," the group concluded.

https://tinyurl.com/4fuhnt85

Smoking before age 15 years raises risk of developing COPD in later years

Vermont, N.H. /The adjusted risk for COPD was elevated among adults who identified as regular cigarette smokers before age 15 years, according to results published in Chronic Obstructive Pulmonary Diseases: Journal of the COPD Foundation. Notably, adjustment was for multiple smoking factors, including smoking status, cigarette pack-years, smoking duration, second-hand smoke exposure and sociodemographic covariates, according to researchers. “Even though childhood cigarette smoking rates are declining, it is crucial to continue to support ongoing guidelines and efforts aimed at reducing childhood smoking,” Laura M. Paulin, MD, MHS, pulmonologist with Dartmouth Health, said. “Our research reinforces that the developing lungs of children are particularly vulnerable to cigarette smoking, and delaying and avoiding cigarette initiation completely has the potential to markedly decrease COPD risk decades later.”

“It is remarkable that the association between early age of starting cigarette smoking with COPD prevalence remained significant, even when accounting for multiple measures of cigarette use throughout the lifetime, well beyond the time of cigarette onset,” she stated.

https://tinyurl.com/ye2y9tn8

CRS frequently overlooked in COPD patients

Sinus-lung continued from page 1

giving antibiotics if the infected fluid is not drained. People with allergies should use their nasal corticosteroid spray (a prescription medication) regularly if allergic swelling has closed off the sinus. The short term use of a nasal decongestant can be helpful but some caution is needed. Nasal decongestants can increase the blood pressure transiently which might be a problem for some patients who already have high blood pressure. As well, some non-prescription nasal decongestants can lead to habituation so that when patients try to stop using them after several days there is rebound congestion.

A safe rule of thumb is to avoid regular use of nasal decongestant sprays beyond five days. In addition to these nasal sprays, nasal saline rinses (available without a prescription) can be helpful. Patients often experience dramatic relief of pain and pressure when the nasal decongestant is used to open the sinus and a nasal saline rinse helps wash away previously trapped sinus fluid.

The short term use of a nasal decongestant can be helpful

Chronic rhinosinusitis (CRS) is frequently overlooked in COPD patients, yet it's strongly associated with worsened respiratory symptoms and poorer quality of life. CRS in COPD patients is linked to:

- Increased frequency of exacerbations
- Greater levels of inflammation
- Lower lung function (e.g., reduced FEV1)

Typical treatment recommendations include:

- Nasal saline irrigation
- Topical nasal corticosteroids
- Antibiotics for acute bacterial sinusitis

In more extreme cases surgery may be recommended (e.g., endoscopic sinus surgery) for patients with persistent or severe CRS.

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.

Advance treatments improving outlook

BODE Index continued from page 1

severity of the condition. It uses the **forced expiratory volume (FEV1)**, a test that determines the amount of air a person can forcefully exhale from their lungs in one second, to categorize the severity of COPD.

The most recent guidelines make FEV1 part of the assessment. Based on your FEV1 score, you receive a GOLD grade or stage as follows:

• Stage 1: FEV1 score greater than or equal to 80% of the predicted value

• Stage 2: FEV1 score between 50% and 79% of the predicted value

• Stage 3: FEV1 score between 30% and 49% of the predicted value

• Stage 4: FEV1 score less than 30% of the predicted value

The second part of the assessment relies on symptoms such as dyspnea, or difficulty breathing, and the degree and number of acute exacerbations, which are flare-ups that may require hospitalization. Based on these criteria, people with COPD will be in one of four groups: A, B, C, or D.

Someone with no exacerbations or one that didn't require hospital admission in the past year would be in group A or B. This will also depend on an assessment of breathing symptoms. Those with more symptoms would be in group B, and those with fewer symptoms would be in group A.

People with at least one exacerbation that required hospitalization, or at least two exacerbations that did or didn't require hospital admission in the past year, would be in group C or D. Those with more breathing symptoms would be in group D, and those with fewer symptoms would be in group C.

Under the new guidelines, someone labelled GOLD grade 4, group D, would have the most serious classification of COPD. This means that they will usually have a shorter life expectancy than someone with a label of GOLD grade 1, group A.

The BODE index

Another measure that uses more than just FEV1 to gauge a person's COPD condition and outlook is the BODE index. BODE stands for:

- body mass
- obstruction of airflow
- dyspnea
- exercise capacity

The most recent guidelines make BODE provides an overall picture of how COPD affects life. While the BODE index is used by some physicians, its value may be lessening as researchers learn more about the condition.

Body mass

The body mass index (BMI), which looks at body mass based on height and weight parameters, can determine if a person has underweight or overweight.

Airflow obstruction

This refers to the FEV1, as in the GOLD system.

Dyspnea

Dyspnea is the most common COPD symptom. The BODE index uses the modified Medical Research Council (mMRC) dyspnea scale to grade the severity of breathing problems.

For example, grade 0 indicates that you only get breathless during strenuous exercise. Grade 4 means that breathlessness is present when performing tasks such as getting dressed or undressed.

Exercise capacity

This means how well you're able to tolerate exercise. It's often measured by a test called the six-minute walking test.

Routine blood tests

One of the key features of COPD is systemic inflammation. A blood test that checks for certain markers of inflammation may be helpful.

The neutrophil-to-lymphocyte ratio (NLR) and eosinophil-to-basophil ratio in the blood test may help with assessing the severity of inflammation.

Regularly monitoring these markers may help to monitor COPD as it progresses.

General life expectancy

As with any serious condition, probable life expectancy for people with COPD is based largely on the severity or stage of the condition, as well as factors such as whether you smoke or are exposed to second-hand smoke. In general, around 85% of deaths due to COPD occur in people over the age of 65 years. However, it's important to note that the outlook will be different for each person. If you've received a COPD diagnosis, your doctor can provide you with more accurate information about your outlook based on your individual circumstances.

Advances in treatments are also helping to improve the outlook for people with COPD. Your doctor can provide you with information about what COPD treatments are available to you. Today's treatments can slow the progression of COPD while improving quality of life.

COPD people

John Donnet

John Donnet was born in Montreal but spent his first 13 years growing up in Toronto. His dad was an executive with Christie's who moved between Toronto and Montreal. He attended St. Laurent high school and Sir George Williams University (now Concordia) to get his BSc degree. John secured a job as a sales rep at Hoffmann La Roche. He was 25 years of age when he started repping Valium, among other products. Valium is known as the drug that built Hoffmann La Roche. He spent a few years as a sales rep, then district sales manager and went into marketing as a product manager. He moved back to Toronto and joined Glaxo as a Group Product Manager. While there he became attracted to medical publishing and joined STA Communications. He remained with STA for the balance of his working career. John and his wife Mary-Anne, who ran her own communications business, retired to Port Hope a few years ago. He was diagnosed with COPD in 2024.

Were you a smoker?

I smoked from 19 years of age, for about 40 years. I tried to quit many times but was unable. I went to Smokenders meetings which helped. What also helped was that I decided that smoking was just not good for my health. I quit cold turkey and went through hell for a couple of weeks. It was crazy, even years later I would still crave a cigarette. Those occasional cravings have now completely stopped.

When did you realize there may be something wrong with your health?

I have a self propelling snow blower. You just steer the thing. But even that little effort was causing me to become quite breathless. Walking to the mailbox to get our daily mail would cause me to get out of breath. It's all been in the recent past. It started with shortness of breath, then coughing and hacking up phlegm. I couldn't do as much as usual. I was slowing down but I put that down to being out of shape and age. Even when I was smoking, I was walking golf courses. I had no symptoms of lung problems when I was younger.

What prompted you to seek help?

In the summer I use a self-propelled lawn mower. We don't have a huge property, but I would have to take two or three breaks, have a swig of water and stop to catch my breath, just cutting the grass. I was getting quite puffed out. It was very unusual for me. The grass episode last summer convinced me to see my nurse practitioner who looks after us in this area.

How bad was your condition when you saw the nurse practitioner?

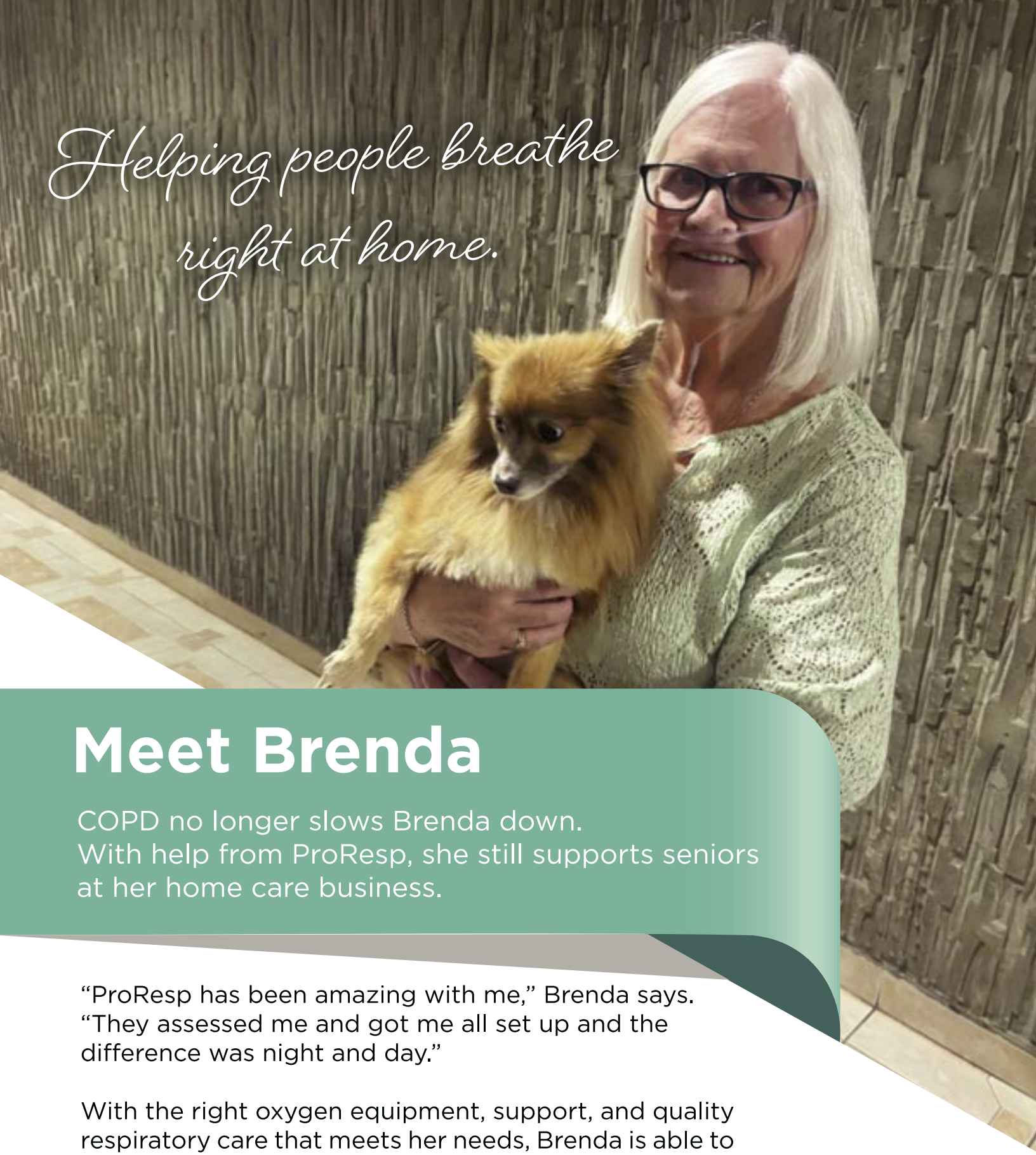
At that point I was coughing up a lot of phlegm and was having difficulty sleeping at night. The worst thing was the shortness of breath all the time. She though it may be cardiovascular. A visit to the local cardiologist and a stress test indicated that my heart was good. I had a CT scan and lung function tests, including spirometry and a chest Xray. The CT scan showed there was a bit of inflammation, but thankfully, no cancer. I had COPD with a touch of asthma.

What kind of medicine were you prescribed?

I was put on Symbicort Turbuhaler. From the first puff of Symbicort, I had relief, which was fantastic. I had a follow up CT scan in January 2025 and my lungs look pretty clear. My recent visit with a respirologist indicated that my symptoms are under control and that there is no need to change my medications as they're working well. She said that we would revisit the pulmonary function tests in a year.

Are you and your wife travelling a lot now that you're both retired?

Going through airports is such a pain. Our daughter has a cottage just south of Minden, Ont. We go there for mini vacations to be on a lake. It's very relaxing.



Meet Brenda

COPD no longer slows Brenda down.
With help from ProResp, she still supports seniors at her home care business.

"ProResp has been amazing with me," Brenda says. "They assessed me and got me all set up and the difference was night and day."

With the right oxygen equipment, support, and quality respiratory care that meets her needs, Brenda is able to keep living the life she loves.

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