Summer 2026 Volume 21 No. 1

Addressing the needs of the Canadian COPD patient

Living with COPD

Chronic Obstructive Pulmonary Disease
www.copdcanada.info

Hypercapnia—Carbon dioxide retention

Hypercapnia is a significant complication in some people with COPD, especially in more advanced stages. Carbon Dioxide Retention (hypercapnia) occurs when the lungs can't effectively remove CO_2, leading to its buildup in the blood. Following is a breakdown of CO_2 retention in COPD.

Typical symptoms

Some of the typical symptoms of CO_2 retention are as follows:

- Morning headaches (due to nighttime CO_2 buildup)
- Confusion or altered mental status
- Flushed skin
- Drowsiness or fatigue
- Breathlessness
- In severe cases: coma (CO_2 narcosis)

Who is at risk?:

- Patients with chronic bronchitis phenotype (as opposed to emphysema alone)
- People with very low FEV_1 (<30% predicted)
- Those on long-term oxygen therapy (if not carefully monitored)
- Individuals with co-existing obstructive sleep apnea or obesity hypoventilation syndrome

Diagnosis

- Arterial blood gas (ABG) test is the gold standard.
- Shows elevated $PaCO_2$ (typically >45 mmHg)
- May also show respiratory acidosis (low pH)

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Tobacco settlement funds update

Smoking tobacco cigarettes is the major cause of Chronic Obstructive Pulmonary Disease and has injured hundreds of thousands of Canadians. If you smoked regularly before Nov. 20, 1998 and were diagnosed with a tobacco-related disease, you may qualify for $14,400 to $100,000 from a landmark tobacco settlement.

The recent settlement agreement between all provinces/territories and the tobacco industry was approved on March 6, 2025. Collectively, the provinces will receive $24 billion over the next 20 years, with a year-one "upfront" payment of $6.3 billion. There are no restrictions on how governments can use the settlement funds. Unless pressured, it is unlikely that any money will be allocated to tobacco or vaping control activities and measures. However, provincial governments should be morally obligated to allocate a

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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 quit smoking a number of years ago before I was diagnosed with COPD. Does COPD progress even after quitting smoking?

A While as an ex-smoker you have taken a major step to improve your health, you need to be aware you are still at risk for lung diseases, even many years after quitting. Although lung capacity declines at a much slower rate in ex-smokers compared with current smokers, the rate of decline in ex-smokers is still higher than the normal age-related decline in never-smokers over a 30-year period.

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Publication Mail Agreement No. 40016917

Ask Dr. Bourbeau

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Q What can you do to protect yourself if you've been offered the chance to take part in a clinical trial? Are these trials a safe thing to do for people with COPD?

A Doctors or medical researchers initiate most clinical trials on their own or sponsored by the pharma industry because they have a theory (or hypothesis) that doing something differently (such as using a new drug or a different approach to care) will improve people's health. Without clinical trials, we would not have all the progress made in medicine with innovative therapies, some to improve patient symptoms and life, and others to cure.

Before agreeing to take part in a trial, you must be informed, to the extent possible, of all the known potential risks of getting (or not getting) the experimental therapy. This is called "informed consent" and is a rule that is governed by trial regulations in Canada, by Health Canada.

You are absolutely entitled to ask questions about:

1 The consent form, or details of the trial itself at any time.
2 Related procedures or potential expenses.
3 Any adverse reactions that patients experienced in other trials.
4 Any other questions about treatments.

Q Can inhaled steroids heighten pneumonia risk in COPD patients?

A Yes, it can. However, we have learned over the years that when patients are well selected, those who have high risk of exacerbations, the benefits overcome largely the risk of side effects such as pneumonia. Furthermore, it is important to note that COPD patients die from acute exacerbation of COPD and usually not from pneumonia although the two can co-exist. The inhaled corticosteroid containing regimen with long-acting bronchodilators prevent exacerbations, reduce hospitalisations, and mortality.

Q I inhale a lot of wood smoke from cooking, heating, and now, wildfires. Does inhaling wood smoke negatively affect the lungs the same as cigarette smoke?

A Yes, the same as smoking, any smoke inhalation can over the long-term cause COPD. This is known as COPD related to biomass exposure. It can also aggravate a respiratory condition or accelerate disease progression.

Q Once I start on oxygen will I need to continue for the rest of my life?

A Not necessarily, it will depend on the reversibility of your lung condition. Usually in COPD or interstitial lung disease such as lung fibrosis, oxygen at home after discharge from the hospital will need to be reassessed and often it will be a lifelong treatment to increase wellbeing and survival.

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

Tobacco

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portion of the funds for tobacco control, smoking cessation, and to compensate Canadians injured by cigarette smoke.

As part of this settlement with Canadian tobacco companies, the Ontario Superior Court of Justice (Commercial List) has approved two compensation plans to provide payments to eligible smokers and ex-smokers diagnosed with certain tobacco-related diseases. The plans are:

- **The Pan-Canadian Claimants' Compensation Plan (PCC)**
- **The Quebec Class Action Administration Plan (QCAP)**

For those who have died and who qualify, payments may be available for their estates.

The eligible diseases are: Primary Lung Cancer or Primary Throat Cancer, Emphysema or COPD (GOLD Grade lll or lV). The Claims Submission Periods commenced on August 29, 2025 and have different claim deadlines:

- **PCC claim deadline is September 3, 2027**
- **QCAP claim deadline is August 31, 2026**

Important note: QCAP deadline is one year earlier than PCC deadline.

Both plans require the smoker or ex-smoker to have smoked at least 87,600 cigarettes (for example, 20 cigarettes a day for 12 years) between January 1, 1950 and November 20, 1998. The cigarettes must be from brands sold by the tobacco companies. The website www.tobaccoclaimscanada.ca has a list of the eligible brands, which include most legal cigarettes sold in Canada. In addition to the disease and smoking requirements, the smoker or ex-smoker under PCC must:

- Reside in Canada (or if deceased, must have resided in Canada at the time of death)
- Have been diagnosed between March 8, 2015 and March 8, 2019, inclusive of those dates
- Have resided in Canada at the time of diagnosis
- Have been alive on March 8, 2019.

QCAP requirements

In addition to the disease and smoking requirements, the smoker or ex-smoker under QCAP

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Pulse: News about COPD

COPD detected early with AI-powered electrocardiogram interpretation

New York/An AI-powered model that analyzes electrocardiograms was able to accurately detect COPD early in internal testing and external validation, according to data published in *eBioMedicine*. "I was excited to see that we could diagnose COPD even six months to 15 months earlier than normally would come to our attention," Monica Kraft, MD, Murray M. Rosenberg Professor of Medicine, system chair of the Samuel Bronfman Department of Medicine and associate dean for clinical affairs at Icahn School of Medicine at Mount Sinai, said. "In a perfect world, I'd love it to be even more than that, but it's a good start that the machine learning algorithms were such that we could be able to see changes very early in the disease," Dr. Kraft said. In this study, Dr. Kraft and colleagues trained a convolutional neural network model to determine if the model could correctly detect COPD. Early detection is important as COPD is usually diagnosed when the disease is quite advanced and by then intervention can be difficult and challenging.

https://tinyurl.com/342cvd55

Study details worse respiratory symptoms in those exposed to cannabis smoke

Montreal/This Canadian study, published in the European Respiratory Journal, shows objective evidence of the adverse physiological, imaging, and molecular changes in cannabis smoke-exposed small airways that may contribute to long-term respiratory morbidity. The growing popularity of cannabis smoking in an era of legalisation has prompted concerns about respiratory health. The researcher's objective was to investigate clinical, and airway epithelial transcriptomic features associated with cannabis smoking. This cross-sectional study analysed data from 139 cannabis-smoking participants categorized by joint-year exposure (low: ≤5; moderate: >5–20; high: >20 joint-years) and 57 never-smokers. They found that among cannabis-smoking participants (48% male, median age 27 years), 84% reported current or former cigarette smoking or vaping. Cannabis-smoking groups reported worse respiratory symptoms than never-smokers.

https://bit.ly/4gvZqGf

Pulse: News about COPD

National Institute on Ageing releases new shingles report

Toronto/The National Institute on Ageing (NIA) released a new report warning that shingles remains a largely overlooked yet preventable health risk for older Canadians. Shingles infections continue to cause unnecessary pain and long-term complications for individuals and avoidable strain on Canada's health care system. Canada's National Advisory Committee on Immunization (NACI) strongly recommends the recombinant zoster vaccine for adults aged 50 years and older, as well as immunocompromised adults aged 18 years and older. Despite this recommendation, fewer than four in 10 Canadians aged 50 and older have received even a single dose of the shingles vaccine. You can download the report here: The Overlooked Issue of Shingles Infections in Older Canadians and How to Address It. (2026) .

https://www.copdcanada.info/shingles-and-copd

Heart attack, stroke risk rise after serious RSV

New York/Adults hospitalized with an acute respiratory syncytial virus (RSV) infection may face a sharp risk of cardiorespiratory events such as heart attack or stroke in the weeks afterward. Compared with a control period preceding infection and after six months and beyond, patients had myocardial infarction (MI) rates 2.6 to 8.7 times greater during each of the first three weeks following an RSV-related admission, with the level of increased risk highest over those initial seven days, reported researchers led by Caihua Liang, MD, PhD, of Pfizer in New York City. Stroke rates increased 7.4-fold in that first week, while rates of chronic obstructive pulmonary disease (COPD) or congestive heart failure (CHF) exacerbations were over 23 times and 12 times higher, respectively. "Results of our study support a potential role of RSV infection in triggering cardiorespiratory complications in adults, especially older adults, and present a clinical and economic burden beyond the acute phase of the illness," Dr. Liang and colleagues wrote. "Additionally, our study highlights the importance of preventive efforts, such as vaccinations, in decreasing the risk of RSV infection and its complications in adults."

https://tinyurl.com/56t46zwt

Tabacco settlement payout expected to be large

Tabacco continued from page 2

must:

- Reside in Quebec (or if deceased, must have resided in Quebec at the time of death);
- Have been diagnosed before March 12, 2012;
- Have resided in Quebec at the time of diagnosis; and
- Have been alive on November 20, 1998.

Free assistance available

Agents are available free of charge to assist claimants under these plans. Agents will help you (a) complete your claim form; (b) commission your signature on the claim form; and (c) provide guidance on how to obtain the necessary information and documents for your claim.

1 **PCC Agent is Epiq** 1-888-482-5852
PCCAgent@TobaccoClaimsCanada.ca

2 **QCAP Agent is Proactio** 1-888-880-1844
tabac@proactio.ca

If you do not submit a claim by the applicable deadline, you cannot be eligible to receive a payment. If you are not sure whether you qualify, the website has a simple questionnaire to help you.

The plans have been designed so that **you do not need a lawyer** to prepare and submit your claim.

To file a claim through the Tobacco Claims Canada website, visit www.tobaccoclaimscanada.ca, click on the "Claimant Portal Login," and use the username and temporary password provided in the "Existing Users" login box to begin the claim process.

Many of you, who have already registered, should have received an email confirmation of your username and a temporary password from Tobacco Claims Canada. The emails were sent on September 12th, 2025.

Full information is available at the official website:

www.TobaccoClaimsCanada.ca
Tobacco Claims Canada
Claims Administrator
Toll-Free: 1-888-482-5852
Email: Info@TobaccoClaimsCanada.ca

Pour consulter cet avis en français, veuillez visiter le site www.TobaccoClaimsCanada.ca/fr

This settlement does nothing to address current and future harms or costs resulting from smoking cigarettes. In fact, the agreement contains no tobacco control measures or industry restructuring requirements.

The COPD Canada website has additional information with appropriate links:

https://www.copdcanada.info/tobacco-settlement-funds

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.

Management of hypercapnia

Hypercapnia continued from page 1

Alveolar hypoventilation
- Damaged or destroyed alveoli (air sacs) in COPD reduce gas exchange efficiency. Less CO_2 is exhaled, so more remains in the bloodstream.

Air trapping and dynamic hyperinflation
- In COPD, especially emphysema, air gets trapped due to loss of elasticity and narrowed airways. This prevents full exhalation, contributing to CO_2 buildup.

Respiratory muscle fatigue
- Over time, the diaphragm and other breathing muscles weaken from overwork. This limits ventilation, leading to CO_2 accumulation.

Blunted respiratory drive
- Some patients with chronic hypercapnia may develop a reduced brain response to CO_2, further suppressing breathing effort.

Management

Non-invasive ventilation (e.g., BiPAP)
- Helps offload respiratory muscles and improve ventilation
- Especially useful during COPD exacerbations or at night for chronic cases

Bronchodilators and inhaled corticosteroids
- Improve airway diameter and reduce inflammation

Low-flow oxygen therapy
- Must be carefully titrated (target oxygen saturation: 88 to 92%)
- Too much O_2 can suppress hypoxic respiratory drive and worsen hypercapnia

Non-invasive ventilation (NIV) in COPD—Types used
- BiPAP (Bilevel Positive Airway Pressure)—most common
- Provides higher pressure during inhalation (IPAP) and lower pressure during exhalation (EPAP)
- Helps offload the work of breathing and clear CO_2
- Nocturnal NIV is used at night in select patients with chronic hypercapnia, especially if they have coexisting obstructive sleep apnea (OSA) or obesity hypoventilation syndrome (OHS)

Oxygen therapy—with caution
- If prescribed, keep O_2 saturation between 88 to 92%
- Over-oxygenation can worsen CO_2 retention
- Use a Venturi mask or oxygen-conserving device for precision

Home NIV (if indicated)
- Long-term NIV can reduce CO_2 and improve quality of life
- Regular follow-up for device settings, compliance, and effectiveness

Airway clearance techniques
- Devices: Flutter valve, Acapella, or chest physiotherapy
- Goal: reduce mucus buildup that can worsen ventilation-perfusion mismatch

Monitoring
- Watch for signs of worsening CO_2:
- Morning headaches
- Daytime sleepiness
- Increasing breathlessness or confusion
- Periodic ABGs or transcutaneous CO_2 monitoring may be used

Avoid respiratory depressants
- Sedatives, opioids, and alcohol can suppress respiratory drive
- Use only under close medical supervision

Pulmonary rehabilitation
- Regular supervised exercise to strengthen breathing muscles
- Breathing techniques (pursed-lip, diaphragmatic) improve exhalation and reduce air trapping

Daily Management Checklist

- Use oxygen as prescribed—aim for 88 to 92% saturation
- Avoid turning oxygen too high unless advised by a doctor
- Use breathing devices (flutter valve, Acapella) to help clear mucus
- Practice pursed-lip and belly (diaphragmatic) breathing
- Use non-invasive ventilation (BiPAP) if prescribed
- Elevate head during sleep if breathing feels harder lying flat
- Follow your exercise plan or pulmonary rehab routine

COPD people

Helmut Eckhardt

"I cannot jump over my shadow. I am who I am and you get what you see." Helmut Eckhardt was born in 1938, in Kassel, a town right in the centre of Germany. He emigrated to Canada in 1957, and his first job was in Toronto, manufacturing stationary products at Moore Business Forms. Later, he moved to Manitoulin Island to gain experience in the tool and die industry, and got married on the island. He is still happily married, with two grown and accomplished daughters. Helmut became a successful industrialist, starting "spring" manufacturing plants in British Columbia, Ontario, and Quebec. His springs were sold to all of the major automotive manufacturers—GM, Ford, and others, as well as to the suppliers to big auto, such as Magna. When he sold his businesses, the Quebec plant was the largest spring manufacturer in North America. Upon his retirement, he moved to B.C. and settled in Cobble Hill, a small town just north of Victoria. One of his passions is motorcycles, and he has quite a collection. His love of bikes includes a need for speed and the pleasures of touring. Helmut's credo in life is to be true to yourself and truthful with all around you.

Tell us about Kassel.

Kassel is referred to as the Capital of the German Fairy Tale Route. It's where art and nature come together. The city is on the River Fulda and has magnificent parks, art treasures, and historical monuments.

Were you healthy when you emigrated to Canada?

I was healthy although I did have TB which was under control.

Were you a smoker?

I quit smoking in 2003 and was diagnosed with COPD in 2004.

You quit before you were diagnosed. That's unusual. What happened?

One day, I just couldn't breathe. That convinced me to quit smoking.

Have you attended any pulmonary rehab classes?

Yes, for about six weeks. We did different kinds of exercises and had breathing lessons.

Have you been able to continue with your motorcycling with COPD?

Fortunately, the COPD didn't hold me back until recently. I really enjoy my bike trips. I've been all around the island. I also like the Lillooet Loop, out of Vancouver. It's a beautiful two-day ride.

Is that your favourite route?

My favourite route is in Germany, from Bodensee north along the Rhine and the Black Forest.

When was the last time you were able to ride?

Last year. It's been about a year.

What kind of motorcycles have you been riding?

For my Canadian tours I've used a 1974 BMW 1000S, a 1983 BMW R1100S, a BMW F800ST, 1985 Ducati 9071E, and a very sleek and fast 2010 Ducati 696.

You like to go fast.

I'm not as crazy as I used to be. I would ride "with punch" when I was younger and had more guts than brains. I have less guts now but it's still good to "punch" from time-to-time, but safely.

Do you have any other hobbies?

I play the keyboard. I took it up about five years ago.

Are you any good at it? Do you use both hands?

I think I'm OK. Yes, I use both hands.

What kind of medications do you take?

All of them. Spiriva, Atrovent, Symbicort, and a few others.

What's the prognosis for you?

They're telling me I have a few months left. I also have lung cancer which can't be treated as I'm too weak for surgery, chemo, or radiation. I don't want to go through any of that so I've refused it. It won't do any good and I want to enjoy the time I have left.

You tried stem cell therapy. How did that work out?

I travelled to Arizona for stem cell therapy. It was very expensive and a big waste of time and money.

How are you coping?

I fell a couple of times so now my daughters come here to help my wife look after me. They both live in the Toronto area, so they switch, travelling back and forth. They're a great help. I'm a lucky man.

Do any of your old friends come by to see you?

I have a lot of visitors. One of my friends comes by every day for a couple of hours. It's nice.

45 YEARS OF CARE

ProResp Inc.

Community Respiratory Therapy

Meet Dora and her ProResp RT

Dora quit smoking after she was diagnosed with COPD. Years later, she had trouble with her breathing and was prescribed oxygen therapy by her doctor.

“I remember I was at the doctor’s office at 1:30 and by 3:30, ProResp was knocking on my door. I was so impressed. I sleep so much better and wake up feeling far more rested. The oxygen helps me recover so much faster.”

Thanks to the care and support of her ProResp team, Dora is living a fuller life again.

Helping people breathe right at home.

Want to hear more patient stories? Follow us on or visit our website **www.proresp.com**