COPD Patient Education

www.ucalgary.ca/asthma
403-944-8742
What is COPD?

“Chronic Obstructive Pulmonary Disease (COPD) is a disease that makes it hard to move air into and out of your lungs. It is a disease that makes breathing difficult and sometimes frightening struggle.”

**COPD** includes two major diseases:

1. Chronic Bronchitis
2. Emphysema

Some people with **COPD** suffer from both chronic bronchitis and emphysema. Both make it harder to breath and can cause breathlessness. There are differences between chronic bronchitis and emphysema.
What is Chronic Bronchitis?

• **Chronic Bronchitis**: inflammation of the airways in your lungs that leaves them irritated. Because of the irritation, the glands in the airways produce extra mucus, which then blocks the airways. The result is that you cough, spit and work hard to breath

• **Signs & Symptoms**: sputum everyday, frequent coughing, wheezing, shortness of breath when exercising or during daily activities
What is Emphysema?

• **Emphysema**: occurs when large air pockets develop in your lungs. These pockets damage and destroy lung tissue, causing the lung to lose its “stretch”. Normal lung tissue can expand and “snap back” like a rubber balloon. This stretch allows you to exhale air from your lungs after you inhaled. If you have emphysema, however, air becomes trapped in your lungs. The result is that you struggle to catch a breath and often feel tired.

• **Signs & Symptoms**: shortness of breath when exercising or during daily activities
What causes COPD?

• COPD is caused by cigarette smoking (80-90 percent of people with COPD smoke or have smoked). A small percentage may be due to occupational exposure to dust and fumes, and possibly outdoor air pollution.

• Rare cause of Alpha 1 Deficiency, a gene deficiency which causes emphysema even if you've never smoked or been around second hand smoke.

Although COPD cannot be cured, there are ways you can manage COPD and treat your symptoms.
Prevent the Progression

• **Quitting smoking** is the single best way to prevent and slow the progression of COPD. It is never too late to “butt out.” Although your lungs are already damaged, you will usually prevent more lung damage if you stop smoking.

• Quitting will be one of the hardest things you will ever do. The most likely to succeed quit attempts are those where the quit attempt starts out with as many supports in place as possible.

• [AlbertaQuits](http://albertaquits.ca) has great resources and information.
Exercise Can Improve Breathlessness

• One of the most common problems with COPD is shortness of breath. Due to the shortness of breath people with COPD tend to avoid exercise. A downward cycle of less activity and more breathlessness is the result.
• To ensure that you have the energy and muscle power you need, plus something left over for daily living, you should be as physically fit as possible.
• Your exercises do not have to be fancy or complicated, but you do have to do them regularly.
• Stretching and breathing exercises, plus a daily walk, are a good place to start.
• Here in Calgary are two Pulmonary Rehabilitation Exercise Program speak to your healthcare professional to get a referral.

Break the Cycle of Breathlessness

Helpful Tips

➢ Tension, anxiety and worry can make you feel more tired and short of breath
➢ It is important that you don’t feel rushed
➢ Use your breathing exercises, and practice a relaxation technique to help break the cycle.
COPD Medications

- Medications cannot cure COPD but they can relieve symptoms
- Different types of medications treat different symptoms
- When symptoms are under control, you will feel better
- For medications to work, you must take them as instructed by your doctor

Basic COPD Medications

- Bronchodilators: For relief and maintenance
- Anti-Inflammatories: Infections
- Vaccines for flu/pneumonia: For prevention
- Supplemental Oxygen: A helper
Select COPD Devices and Medications

**QUICK-ACTING bronchodilators**

- **Rescue**
  - Bricanyl® (terbutaline)
  - Acomplia® (salbutamol)
  - Ventolin® (salbutamol)
  - Albuterol® (ipratropium)
  - **Short-Acting Beta2 Agonists (SABA)**

- **Long-Acting bronchodilators**
  - Tudorza® (vilanterol)
  - Incalia™ (romemclumitum)
  - Seclus® (glycopyrrolate)
  - Foradil® (formoterol)
  - Ombréz® (indacaterol)
  - **Short-Acting Muscarinic Antagonists (SAMA)**

- **Combination medications**
  - Durair® (indacaterol/glycopyrrolate)
  - Almavit® (vucerilog/zinverterol)
  - Symbicort® (budesonide/formoterol)
  - Advair® (fluticasone/salmeterol)
  - Brox™ (fluticasone/salmeterol)
  - Combivent® (ipratropium/salbutamol)
  - **Long-Acting Beta2-Agonists (LABA)**

**DAILY medications**

- **LABA/LAMA**
  - Inhaled corticosteroids (ICS/LABA)

- **SABA/SAMA**
  - Oral medications
    - aminophylline/asphenol, tablet/cand (Thoroly/Uniphyl®, etc.)
    - Daxx® (formoterol) tablets
    - xopenex

- **OTHER supportive measures**
  - antibx for the treatment of purulent AECOPD (Acute Exacerbations of Chronic Obstructive Pulmonary Disease)
  - flu vaccine
  - oxygen
  - pneumata vaccine
  - pulmonary rehabilitation

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Calgary COPD & Asthma Program
# COPD Medications

<table>
<thead>
<tr>
<th></th>
<th>I Take:</th>
<th>My Dose</th>
<th>What it Does</th>
<th>Side Effects†</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reliever</strong></td>
<td>Airomir®, Bricanyl®,</td>
<td>• Relaxes muscles in the airways</td>
<td>• tremor (hands shake)</td>
<td>Keep with you at all times for use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Salbutamol, Ventolin®</td>
<td>• Works within minutes when needed</td>
<td>• fast heart rate</td>
<td>• During lung attacks/flare-ups</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Used before activity to prevent attacks</td>
<td>• nervousness</td>
<td>• Episodes of shortness of breath</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• headache</td>
<td>• Episodes of difficulty breathing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• weakness/dizziness</td>
<td>• Use spacer with all MDIs*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• sweating</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tudorza®, Seebri®,</td>
<td>• Relaxes muscles in the airways</td>
<td>• dry mouth/throat</td>
<td></td>
<td>Avoid getting the powder in your eyes</td>
</tr>
<tr>
<td></td>
<td>Spiriva®, Incruse®</td>
<td></td>
<td>• constipation</td>
<td></td>
<td>Avoid getting Respimat mist in your eyes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• trouble urinating</td>
<td></td>
<td>If trouble urinating, stop medication and see your Doctor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• headache</td>
<td></td>
<td>Varied onset</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• tremor (hands shake)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• fast heart rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• muscle cramps</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Serevent®, Onbrez®,</td>
<td>• Relaxes muscles in the airways</td>
<td></td>
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<tr>
<td></td>
<td>Oxeze®</td>
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<td></td>
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<tr>
<td></td>
<td>Anoro®, Duaklir®,</td>
<td>• Relaxes muscles in the airways</td>
<td>• dry mouth/throat</td>
<td>2 medications in one device</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inspiuto®, Ultibro®</td>
<td></td>
<td>• trouble urinating</td>
<td>Once daily usage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• headache</td>
<td></td>
<td>Avoid getting the powder/Mist in your eyes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• tremor (hands shake)</td>
<td></td>
<td></td>
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<td>• fast heart rate</td>
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<td></td>
<td></td>
<td></td>
<td>• muscle cramps</td>
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</tbody>
</table>

*MDIs*: Medications Delivery Systems

Revised December 2018
# COPD Medications

<table>
<thead>
<tr>
<th>Combination Preventer</th>
<th>I Take:</th>
<th>My Dose</th>
<th>What it Does</th>
<th>Side Effects*</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advair\®, Breo\®, Symbicort\®</td>
<td></td>
<td></td>
<td>Regular use decreases inflammation (swelling) of the airways; Relaxes muscles in the airways; Meant only for people who experience frequent flare-ups</td>
<td>hoarse voice; sore throat; oral thrush; headache; tremor (hands shake); fast heart rate; muscle cramps; dry mouth/throat; trouble urinating</td>
<td><strong>Rinse, gargle, and spit after each use</strong>&lt;br&gt;Take regularly to control inflammation and relax muscles in airway&lt;br&gt;Carries a slight increased risk of pneumonia&lt;br&gt;Use spacer with all MDIs*</td>
</tr>
<tr>
<td>Preventer + Bronchodilator</td>
<td>Trelegy\®</td>
<td></td>
<td>Regular use decreases inflammation (swelling) of the airways; Relaxes muscles in the airways; Long acting once/day medication (24hrs)</td>
<td>hoarse voice; sore throat; oral thrush; headache; tremor (hands shake); fast heart rate; muscle cramps</td>
<td><strong>Rinse, gargle, and spit after each use</strong>&lt;br&gt;Avoid getting medication into eyes&lt;br&gt;Take regularly to control inflammation and relax muscles in airway&lt;br&gt;Carries a slight increased risk of pneumonia&lt;br&gt;If trouble urinating, stop use and see your Doctor</td>
</tr>
<tr>
<td>Short-acting Bronchodilator</td>
<td>Atrovent\®, Combivent\®</td>
<td></td>
<td>Relaxes muscles in the airways; Starts working within 30 minutes; Lasts 6 hours</td>
<td>dry mouth, bad taste; tremor (hands shake); headache; blurred vision; stuffy nose; trouble urinating</td>
<td>Rinse mouth with water if bothered by dryness or bad taste in mouth&lt;br&gt;Avoid getting medication into eyes&lt;br&gt;If trouble urinating, stop use and see your Doctor&lt;br&gt;Use spacer with all MDIs*&lt;br&gt;Combivent contains Atrovent and Ventolin</td>
</tr>
<tr>
<td>Potent Anti-Inflammatory</td>
<td>Prednisone</td>
<td></td>
<td>Rapidly decreases inflammation of the airways; Usually taken for 5-10 days</td>
<td><strong>short term use:</strong> increased appetite, weight gain, mood change, easy bruising&lt;br&gt;<strong>long term use:</strong> increase blood pressure, round face, osteoporosis</td>
<td>Used short term for severe worsening of breathing&lt;br&gt;Take once a day with morning meals&lt;br&gt;If taken longer than 2 weeks, dose may be “tapered” (decrease the amount slowly rather than stop suddenly)</td>
</tr>
</tbody>
</table>

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*MDI: Meter Dose Inhaler<br>\*Included are most common side effects, may not be complete list.

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This material is designed for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have specific questions, please consult your doctor or appropriate healthcare professional.

www.ucalgary.ca/asthma

Revised December 2018
Why use a Spacer?

AeroChamber® family of Valved Holding Chambers (VHC) ensure that inhaled medication gets where it’s needed… **in the lungs**

**Inhaler Alone**
Many patients do not use their inhaler properly. Not enough medication reaches the lungs.¹

**Medication collects in mouth and throat**

**Inhaler + AeroChamber® brand-name VHC**
Using the AeroChamber® brand-name VHC, the patient controls when to inhale. Inhalation is easy and effective.¹

**Less medication collects in mouth and throat, reducing side effects**

**More medication delivered to the lungs**

¹ For more information, please refer to the manufacturer’s instructions.
MDI with Spacer

Click [here](#) to watch the video.
Click [here](#) to print instructions.
**Turbuhaler**

Click [here](#) to watch the video.

Click [here](#) to print instructions.
Diskus

Click [here](#) to watch the video.
Click [here](#) to print instructions.
Ellipta

Click [here](#) to watch the video.
Click [here](#) to print instructions.
Respimat

Click here to watch the video.

Click here to print instructions.
Click [here](#) to watch the video. Click [here](#) to print instructions.
Breezhaler

Click [here](#) to watch the video.
Click [here](#) to print instructions.
**Handihaler**

Click [here](#) to watch the video.

Click [here](#) to print instructions.

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### Important Information

**Note:** Place mouthpiece between your teeth and close your lips.

**Expired:** Check the expiry date on the box or on the pack that holds the capsule.

**Reminders:**
- Keep the HandiHaler dry.
- Capsules are sensitive to light, moisture and extreme temperatures.
- Make sure to remove only **ONE** capsule from the pack at a time.
- Do not breathe ‘out’ into the device.
- **Inhale twice from the same Spiriva capsule.**
- If the dry powder gets on your hands, wash your hands because the powder may irritate your eyes.
- **Cleaning:** Wipe mouthpiece with a dry cloth or tissue.

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Illustrations developed by the Community Pediatric Asthma Service, www.ucalgary.ca/icontrolasthma

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For more information on inhaled medications and device demos, visit our website at: www.ucalgary.ca/asthma
What is a COPD Action Plan?

- A COPD **Action Plan** will tell you how to manage your COPD flare-ups or lung attacks.
- It will help you and your caregivers to recognize and act to treat your flare-ups. This will keep your lungs and you as healthy as possible.
- Click **here** to print a copy.
Recognize Flare-ups or Lung Attacks

- A flare-up or lung attack is when your COPD symptoms get worse for at least 48 hours leading to an increase in the use of maintenance medications and/or adding in additional medications such as antibiotics/prednisone.
- Often triggered by infections like colds or the flu, and also by air pollution.

**Warning Signs of a Flare-Up or Lung Attack**
1. Increase in the amount, thickness or stickiness of sputum.
2. Change in the color of the sputum to yellow, green or brown.
3. Fever.
4. Becoming more short of breath.
5. General feeling of being unwell.
6. Increased ankle swelling and sudden weight gain.
7. Problems sleeping or the need to sleep sitting up.

If you have any increase or change in your:

- Coughing/wheezing
- Shortness of breath
- Mucus production

Follow your COPD action plan.
Prevent Flare-ups or Lung Attacks

Avoid environmental factors that may trigger symptoms which may include:

- These factors can worsen symptoms, especially shortness of breath
- You may also have some coughing and/or an increase in sputum
- If you can’t avoid a trigger you can use your short-acting bronchodilator 20 to 30 minutes before you are exposed to the trigger

Avoid people who are sick, hand wash regularly throughout the day, exercise regularly, get enough sleep, eat well, take medications as prescribed and get a yearly flu shot.
Treating Flare-ups or Lung Attacks

**Begin Treatment for a Flare-up**

- Flare-ups can begin quite suddenly and unexpectedly, it is a good idea to have worked out an *Action Plan* beforehand with your doctor.
- Your action plan might involve keeping a supply/prescription of antibiotics or oral anti-inflammatories on hand at home from your doctor on how to use them if a flare-up occurs. *When you start an antibiotic, make sure that you finish entire treatment.*
- If you do not have a supply/prescription of antibiotics or oral anti-inflammatories on hand at home then you will need to see your family doctor or go to urgent to be assessed and given the medications needed.
- The sooner you get started on the medication to treat your flare-up the chance of getting seriously ill and ending up in hospital is a lot less.
- Follow up with your doctor within 2 days after using any of your prescriptions for a COPD flare-up.

<table>
<thead>
<tr>
<th>If:</th>
<th>What should I do?</th>
</tr>
</thead>
<tbody>
<tr>
<td>My symptoms have worsened.</td>
<td>Notify my contact person and/or see my doctor.</td>
</tr>
<tr>
<td>After 48 hours of treatment my symptoms are not better.</td>
<td>After 5 pm or on the weekend, go to the hospital emergency department (Tel:</td>
</tr>
<tr>
<td>I am extremely short of breath, agitated, confused and/or drowsy,</td>
<td>Dial 911 for an ambulance to take me to the hospital emergency department.</td>
</tr>
<tr>
<td>and/or I have chest pain.</td>
<td></td>
</tr>
</tbody>
</table>

If You are Not Getting Better

02/05/2020

Calgary COPD & Asthma Program
“Let’s Maintain Your EnAIRgy!” is a series of exercise and health videos specifically designed and approved by health professionals for people living with COPD, whether it is emphysema or chronic bronchitis. The exercises suggested herein are all safe for you to perform. These clips were created by the Centre hospitalier universitaire de Sherbrooke (CHUS), and funded by the Fonds Brigitte-Perreault from the CHUS Foundation in collaboration with the Living Well with COPD program.

Series of Exercise Programs Videos (Click link to Watch)
- Introduction
- Safety measures
- Flexibility Exercises
- Exercise Program 1 – Beginner
- Exercise Program 2- Intermediate
- Learn the Techniques to Reduce Breathlessness
- Save Energy
COPD and COVID-19

- Click [here](#) to print a copy of “Managing COPD During COVID-19”
- Click [here](#) to watch the video “Ask the Expert”
Symptoms of COVID-19

- Anyone who has these symptoms **must** self-isolate for a minimum of 10 days or until symptoms resolve, whichever is longer.

More Information on COVID-19

The following links contain updated information from Alberta Health Services.

- Updates on COVID-19 virus
- COVID-19 **Self Assessment Tool**: Use this tool to help determine whether you should be tested for COVID-19
Patient History Form

Calgary COPD & Asthma Program

[Form fields filled out partially]

Do you experience heartburn or gastroesophageal reflux (GERD)?
- Yes
- No

Have you ever had any of the following? (Check all that apply)
- Hayfever
- Eczema
- Hives
- Allergies
- Hayfever
- Postnasal drip
- Asthma allergy
- Nasal Polyps
- Sinusitis
- Hayfever

Which of the following triggers your breathing problems? Check all that apply.
- Air pollution
- Dust (dirt/mold)
- Environmental chemicals
- Exercise
- Food additives
- Grass/seeds/grasses
- Strong odours (paint, perfume, etc.)
- Weather changes
- Other:

Is there a time of year when your breathing seems to bother you more?
- Fall
- Winter
- Spring
- Summer

Are you around animals a lot?
- No
- Yes

Do you take any other therapies for your breathing or allergies?
- No
- Yes

Do you have any concerns about your breathing medications?
- No
- Yes

Do you have any concerns about your breathing medications?
- No
- Yes

Does anyone in your home use tobacco or tobacco-like products?
- Yes
- No

Do you currently use tobacco or tobacco-like products?
- Yes
- No

Use in the last year?
- Yes
- No

Use in the last 30 days?
- Yes
- No

Use anytime in the past?
- Yes
- No

How many years did you smoke?
How many a day?

Type of Tobacco/tobacco-like product (check all that apply)
- Cigarettes
- Pipe
- Cigar
- Snuff
- Smokeless Tobacco (chewing/lozenge)
- Other (specify)

Waterpipe (e.g., Hookah)
- E-cigarettes/ECig

During the past 12 months, have you stopped using tobacco or tobacco-like products for 1 day or longer because you were trying to quit?
- Yes
- No

What treatments have you tried in the past to quit?
- Nicotine patch
- Gum
- Lozenges
- Inhaler
- Spray
- Zyban
- Champsix
- Other (specify)

On a scale of 1-10 how important is changing your tobacco or tobacco-like product use? (1 = not important, 10 = very important) rating

1 2 3 4 5 6 7 8 9 10

Would you like to set a quit day?
- Yes
- No (Date: __________)
- No
New position statement was developed by the CTS COPD Steering Committees to help Canadian physicians optimize management for their patients during the COVID-19 pandemic.

Click here to read the COPD Position Statement – APRIL 8, 2020
Acknowledgements

We thank the following for content contained in this document:

• Taking Control of Asthma – Follow the Circle of Care; AstraZeneca
• Breathe: The Lung Association
• Canadian Thoracic Society
• Community Pediatric Asthma Service
• Living Well with COPD
• Centre hospitalier universitaire de Sherbrooke (CHUS), and funded by the Fonds Brigitte-Perreault from the CHUS Foundation in collaboration with the Living Well with COPD program.
Contact Us

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