COPD Medications

What you will learn from this session

- Benefits of medications
- The different types of COPD medications, what they do and when to use them
- How to take your medications properly
- What a COPD Action Plan is and how to request one

Key Messages:

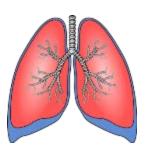
- COPD is manageable at any stage of your diagnosis
- Medications are important in managing COPD
- Medications cannot cure COPD, but they can improve your symptoms
- Medications are only beneficial if taken properly

Benefits of Medications

- Manage shortness of breath
- Improve health status
- Increase exercise tolerance
- Decrease 'flare-ups'



Bronchodilator Medications:



- Open our airways
- Treat shortness of breath
- Types: Inhaled, Oral and Liquid medications
- Many different types of medications used to manage lung diseases → your doctor and healthcare team will decide what is best for you
- Take medications as prescribed
- If not working as usual, or side effects become bothersome, talk to your doctor or pharmacist

Inhaled Bronchodilators:

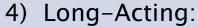
- 1) Short and Fast Acting:
- Ventolin (salbutamol)
- Bricanyl (terbutaline)



- 2) Short–Acting:
- Atrovent (ipratropium)



- 3) Short–Acting Combination:
- Combivent (ipratropium and salbutamol)



Many types





1) Reliever/Rescue Medications

Ventolin (salbutamol)
Bricanyl (terbutaline)

- Used when you feel short of breath and need relief fast
- ► Fast-Acting: start to feel relief within 5-10 minutes
- ▶ Short-Acting: only last 4-6 hours
- Intended to be used as needed
- Carry with you at all times







2) Short-Acting Bronchodilators

Atrovent (ipratropium)

Short acting but NOT fast acting

Should be used <u>regularly</u> to work properly

SHOULD BE USED WITH A SPACER DEVICE WHY??



Benefits of a Spacer

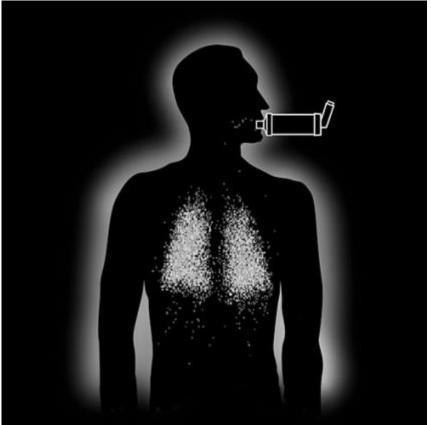
- A spacer allows more drug to enter into the lungs versus closed mouth technique
- ONLY about 9% of patients using inhaled medications are actually using them properly
- Preferred method!













3) Combined Short-Acting Bronchodilators

<u>Combivent (ipratropium + salbutamol)</u>

- Short-acting but NOT fast acting
- Should be used <u>regularly</u> to work properly





4) Long-Acting Bronchodilators

- ▶ Last longer (12–24 hrs)
- Taken on a **regular** basis once or twice a day
- ▶ Immediate effects may not be noticed
- Some side effects with these medications
 - Dry mouth, heart flutter, lightheadedness, increase in eye pressure
 - Consider risk versus benefit

















Long-Acting Bronchodilators







- Spiriva (tiotropium)
- Seebri (glycopyrronium)
- Tudorza (aclidinium)
- Incruse (umeclidinium)
- Serevent (salmeterol)
- Fordadil (formoterol)
- Onbrez (indacaterol)
- Ultibro (indacaterol + glycopyrronium)
- Anoro (vilanterol + umeclidinium)
- Inspiolto (olodaterol + tiotropium)
- Duaklir (formoterol + aclidinium)

















5) Combination long-acting bronchodilator and steroid medications

Symbicort (budesonide + formoterol)
Advair (fluticasone + salmeterol)
Breo (fluticasone + vilanterol)

- Combined inhaled corticosteroid <u>and</u> long-acting bronchodilator in one device
- Used to help <u>prevent</u> 'flare-ups' in certain people
- Must gargle, rinse and spit after each use → WHY?











6) Oral Bronchodilators

Theophylline

- Not as commonly used
- 'Add-on' therapy to treatment of <u>severe</u> COPD
- NOT for immediate relief
- Potential for food/drug interactions
- Levels must be monitored carefully by a blood test



7) Oxygen

- Oxygen is a medication
- Requires a prescription by your doctor
- Provincial Home Oxygen Program
- Pharmacare i.e. Portable tanks
- If you have any questions please consult the Respiratory Therapist





Medication Storage & Care

Where do you store your medications?

- Dry place away from heat and humidity
- Protect from light (i.e. Spiriva)
- Avoid exposure to extreme heat and cold
- Keep out of reach of children and pets
- Keep track of expiration date
- Need to clean devices regularly









Delivery Devices

Metered-dose inhaler (MDI/puffer)



Turbuhaler Diskus Handihaler Breezhaler Genuair Ellipta



Nebulizer

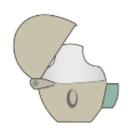
















MDI techniques:

Open-Mouth and Closed-Mouth



Image: Control of the con

How To Use A Metered-Dose Inhaler (MDI) aka "puffer" CLOSED MOUTH

- Remove cap
- Shake well (about 7 or 8 times)
- Breathe normally
- Exhale (away from device)
- Tilt chin up slightly
- Inhale & depress cartridge <u>once</u>
- Keep breathing in slow & deep
- Hold breath 5 10 seconds
- Exhale slowly
- Replace cap
- If a 2nd puff is needed, wait 30-60 sec before next dose

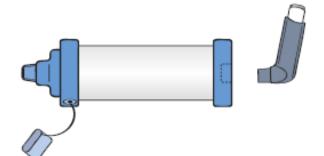


How To Use A Puffer (MDI) with a Spacer Device

- Shake the MDI
- Remove the caps
- Attach MDI to spacer
- Exhale (away from spacer)

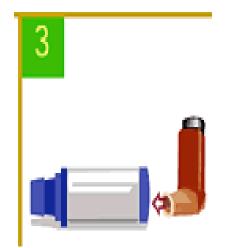


- Tilt chin up slightly
- Depress MDI into spacer device <u>once</u>
- Inhale slow & deep
- Hold breath 5 − 10 seconds
- Exhale slowly
- Replace cap
- If a 2nd puff is needed, wait 30-60 sec before





















Maintenance of MDI



- Once a week remove the canister
- Soak the cap and plastic container in warm, soapy water, rinse & then allow to air-dry
- The canister should be kept warm, away from the cold and should not be put into water
- In case of exposure to the cold, roll the canister between the palms of your hands to warm it up
- It is <u>NOT</u> recommended to float your device in water to check the number of doses remaining



Spacer Maintenance

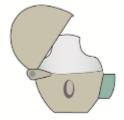
- Clean the device prior to the first use and once a week thereafter
- Clean in warm soapy water and rinse with water by gently agitating in sink of water (ideal)
- Do not run water from tap directly through valve as this could wreck it
- Allow spacer to air dry, do not dry with a cloth
- Some spacers can be cleaned in dishwasher follow manufacturer instructions

Dry Powder Inhalers

- Turbuhaler
- Diskus
- Handihaler
- Breezhaler
- Genuair
- Ellipta









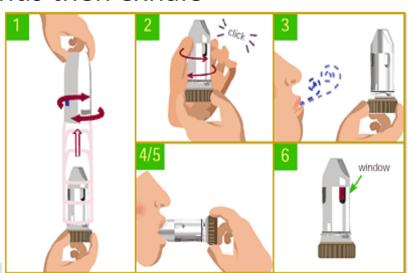






How To Use a Turbuhaler®

- 1. Holding upright, remove the cap
- 2. Turn the base once in one direction as far as it goes & back in the other as far as it goes and you should hear ONE click. It doesn't matter which way as long as you **turn it twice and hear one click** (doesn't matter when you hear it).
- 3. Exhale (away from the device)
- 4. Tilting chin up slightly place between lips and inhale fast & deep
- 5. Hold breath 5 10 seconds then exhale
- 6. Once the **RED** mark appears in the window only **20** doses left



Always replace cap when not in use



How To Use A Diskus®

- 1. Open the Diskus®
- 2. Slide the lever all the way in one direction
- 3. Exhale (away from device)
- 4. Tilt chin up slightly
- 5. Seal lips around the mouthpiece
- 6. Inhale fast & deep
- 7. Hold breath 5 10 seconds
- 8. Exhale
- 9. Close Diskus®

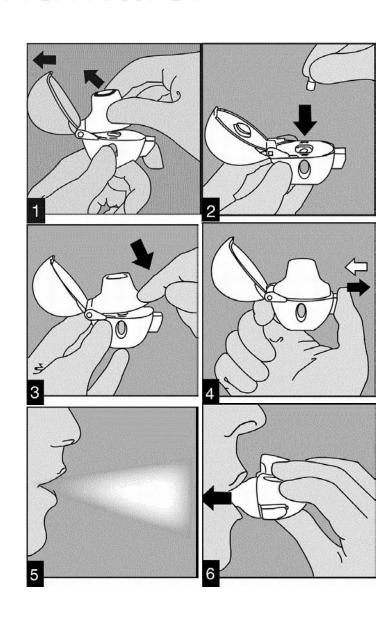
*IMPORTANT:
Make sure you
are holding
device upright so
that the
medication does
not pour out





How To Use A Handihaler®

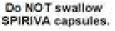
- 1. Open dust cap and mouthpiece
- 2. Place capsule in center chamber
- 3. Close mouthpiece until click is heard
- 4. Hold upright and press button **once** & release
- 5. Exhale completely *away* from device
- 6. Place mouthpiece in lips, tilt chin up slightly. Breathe in slow & deep (a whirling sound should be heard)
- 7. Hold breath for 5-10 seconds then **REPEAT** last two steps
- 8. Open cap and Discard empty capsule
- 9. Close cap for storage
- 10. Wash your hands*





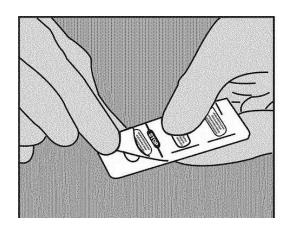
CAUTIONS of SPIRIVA







After putting the SPIRIVA capsule into the HandiHaler device, breathe in your medicine through your mouth.



Medication is light sensitive – **DO NOT** pre-load the device or peel package past the **STOP** line

Medication can cause increased pressure in the eyes so **DO NOT TOUCH EYES** after touching capsule and **ALWAYS** wash hands after use



Breezhaler



- 1. Remove dust cap and lift the mouth piece
- 2. Remove single capsule from blister pack
- 3. Place capsule 'sideways' into device
- 4. Close mouth piece
- 5. Press the TWO buttons on the side of the device **once** and release
- 6. Exhale away from device
- 7. Wrap mouth around mouth piece. Inhale fast and deep. You may hear a whirling sound
- 8. Hold breath for 5-10 seconds
- 9. REPEAT last 2 steps
- 10.Discard the used capsule











Genuair



PRESS the green button all the way down

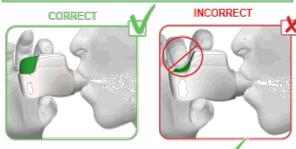


RELEASE the green button





ATTENTION: DO NOTHOLD THE GREEN BUTTON DOWN WHILE YOU ARE INHALING.

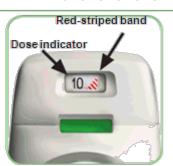


Inhale a long steady deep breath.
Hold your breathe for 5-10 seconds





Dose indicator goes down by intervals of 10: 60, 50, 40, 30, 20, 10, 0.





How To Use the Genuair®

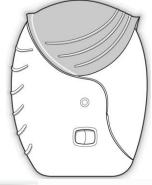
- 1. Remove the cap (lightly squeeze the arrows on the sides)
- 2. Press and release the end button
- Check that the colour control window is green. Green = ready
- 4. Breathe away from the inhaler.
 Inhale **fast** and **deep** through the mouthpiece. *Keep breathing in even after you hear the inhaler "click"*
- Check that the colour control window has turned to red. If not, repeat inhaling strongly and deeply.
- 6. Replace cap

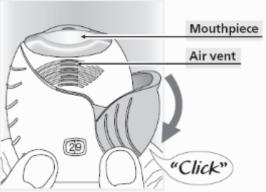


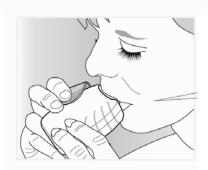


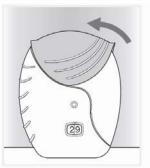
Ellipta

- 1. Keep closed until you are ready to inhale a dose
- 2. When ready, slide the blue cover to the side until you hear a click
- 3. The dose counter will count down by one
- 4. This shows that the dose is ready to inhale
- 5. While holding the inhaler away from your month, exhale a complete breath.
- **6. Do not** breathe into the device.
- 7. Put the mouthpiece between your lips, and close your lips firmly around it.
- **8. Do not** block the air vent with your fingers.
- 9. Take one fast and deep breath in. Hold this breath for as long as possible (5-10 seconds).
- 10. Remove the inhaler from your mouth.
- 11. Exhale slowly and gently, close device.











How To Use a RESPIMAT® - SMI

1. Inserting the cartridge









With cap closed, press safety catch while pulling off the clear base

Take cartridge out of box.
Push the narrow end of the cartridge into the inhaler until it clicks.

Press the cartridge firmly against a firm surface to ensure that is has gone all the way in



How To Use a RESPIMAT®

2. Priming the Respimat for first-time use







- 1) Hold Respimat upright with cap closed. **Turn** the base in the direction of the black arrows on the label until it clicks (half a turn)
- 2) **Open** the cap until it snaps open
- 3) **Press**

Point the Respimat towards the ground Press the dose release button. Close the cap.

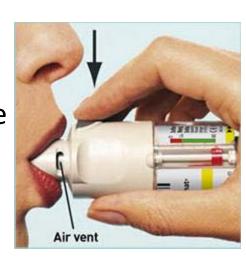
4) Repeat **TOP** steps until a cloud is visible. Then repeat steps <u>three</u> more times to ensure the inhaler is prepared for use.



How To Use a RESPIMAT®

- 1. Hold the inhaler upright with cap closed
- 2. TURN the base in direction of the white arrows on the label until it clicks (half turn)
- 3. OPEN the cap until it snaps fully open
- 4. Breathe out slowly and fully
- 5. Close lips around the mouthpiece without covering air vents
- 6. Point the inhaler to the back of the throat
- 7. While taking slow, deep breath, **PRESS** the dose release button and continue to breath in **slow** and **deep**
- Hold breath for 10 seconds or as long as you can and close the cap







Sanitizing Dry Powder Inhalers

- Not usually necessary
- DO NOT USE WATER can cause medication to clump and clog device
- Wipe mouth piece as needed and more frequently if you are sick

DID YOU KNOW: The flu virus can live on a dry surface for up 48 hours



Medication Storage

- Store all devices in a dry place (NOT THE BATHROOM)
- Close all devices when not in use
- Keep out of direct frost, heat, sunlight and out of high temperatures (>30°)
- Keep track of the number of doses so that you do not run out





Problems with Managing Medications

- 1) Brainstorm:
 - What problems do you have with managing medications?
- 2) Pick 1 problem to problem-solve
- 3) Problem-solve:
 - What could you do when you encounter this problem?



Problem-solving steps

- 1) Identify the problem
- 2) List ideas to solve the problem
- 3) Select one method to try
- 4) Check the results
- 5) Pick another idea if the first didn't work
- 6) Use other resources
- 7) Accept that the problem may not be solvable now

Time to Take Action: Knowledge is key...

"Don't wait untilyou are ready totake action. Instead, take action to be ready."

Jensen Siaw 1 Mar 2013 4:39 pm



Action Plan



- Can help you stay healthy
- Consists of instructions about what to do and how/when to do it
- Early action is important!

Action Plan Details:

- Written contract between you and your doctor
- How to manage your flare-up
- Quickly recognize and treat flare-ups
- Prevent further worsening
- Avoid an emergency room visit
- Important: This does NOT replace a visit with your Primary Care Provider



For more information on the COPD ACTION PLAN Ask your Doctor

My COPD Action Patient's Copy	Plan(Patient's Name)	Date	Cenadian Respiratory Guidelines COPD Installate Proventable	My COPD Action Plan DateDate	Canadian Respiratory Guidelines COPD Transactor, Preventage
This is to tell me ho	w I will take care of myself when I have a 6	COPD flare-up.		This is to tell me how I will take care of myself when I have a COPD flare-up. My goals are	
, саррет сетие.	(Name & Phone Numb	ber)	(Name & Phone Number)	(Name & Phone Number) Prescriptions for COPD flare-up (Palient to take to pharmacist as needed for symptoms)	(Name & Phone Number)
My Symptoms I have sputum. I feel short of breath.	I Feel Well My usual sputum colour is: When I do this:	Changes in my sputum, for at least 2 days. Yes □ No □ More short of breath than usual for at least 2 days. Yes □ No □	I Feel Much Worse My symptoms are not better after taking my flare-up medicine for 48 hours. I am very short of breath, nervous, confused and/or drowsy, and/or I have chest pain.	These prescriptions may be refilled two times each, as needed, for 1 year, to treat COPD flare-ups. Pharonce any part of this prescription has been filled. Patient's Name Patient Ide 1. (A) If the colour of your sputum CHANGES, start antibiolic	entifier (e.g. DOB, PHN)
My Actions	Stay Well I use my daily puffers as directed. If I am on oxygen, I useL/min.	Take Action If I checked 'Yes' to one or both of the above, I use my prescriptions for COPD flare-ups. I use my daily puffers as usual. If I am more short of breath than usual, I will	Call For Help I will call my support contact and/or see my doctor and/or go to the nearest emergency department. I will dial 911.	How oftenfor #days:	
Notes:		takeupffs ofup to a maximum oftimes per day. I use my breathing and relaxation methods as taught to me. I pace myself to save energy. If I am on oxygen, I will increase it fromL/min toL/min.	Important information: I will tell my doctor, respiratory educator, or case manager within 2 days if I had to use any of my flare-up prescriptions. I will also make follow-up appointments to review my COPD Action Plan twice a year.	Once I start any of these medicines, I will tell my doctor, respiratory educator, or case manager within 2 Doctor's Name Doctor's Fax License	Doctor's Signature
THE LUNG ASSOCIATION		CIETY The Canadian Thoracic S	with the COPD & Asthma Network of Alberta (CANA), ociety (CTS) acknowledges the past contributions of d the Family Physician Airways Group of Canada. PART 1 OF 2	L'ASSOCIATION DELLAGNAIDE SOCIÉTÉ CANADIENNE DE THORACCI COM	offsboration with the COPD & Asthma Network of Alberts (CANA). Thoracic Society (CTS) acknowledges the past contributions of COPD and the Family Physician Always Group of Canada. PART 2 OI



Action Plan Components

- ▶ GREEN ZONE: I feel well
- YELLOW ZONE: I feel worse (environment/stress)
 - Prescription for COPD Flare-Up
- ▶ RED ZONE: I feel I am in danger



Action Plan (Part 1)

My COPD Action Patient's Copy	Plan(Patient's Name)	Date	Canadian Respiratory Guidelines COPD Trustables. Proventable	
	ow I will take care of myself when I have	12		
ly support contac	ts are(Name & Phone Nu	mber) and	(Name & Phone Number)	
My Symptoms	I Feel Well	I Feel Worse	I Feel Much Worse URGENT	
I have sputum.	My usual sputum colour is:	Changes in my sputum, for at least 2 days. Yes □ No □	My symptoms are not better after taking my flare-up medicine for 48 hours.	
I feel short of breath.	When I do this:	More short of breath than usual for at least 2 days. Yes □ No □	I am very short of breath, nervous, confused and/or drowsy, and/or I have chest pain.	
	Stay Well	Take Action	Call For Help	
My Actions	I use my daily puffers as directed.	If I checked 'Yes' to one or both of the above, I use my prescriptions for COPD flare-ups.	I will call my support contact and/or see my doctor and/or go to the nearest emergency department.	
	If I am on oxygen, I useL/min.	I use my daily puffers as usual. If I am more short of breath than usual, I will take puffs of up to a maximum of times per day.	I will dial 911.	
Notes:		I use my breathing and relaxation methods as taught to me. I pace myself to save energy.	Important information: I will tell my doctor, respiratory educator, or case manager within 2 days if I had to use any of my	
		If I am on oxygen, I will increase it from L/min to L/min.	flare-up prescriptions. I will also make follow-up appointments to review my COPD Action Plan twice a year.	
HE LUNG ASSOCI		SOCIETY The Canadian Thoracic 8	in with the COPD & Asthma Network of Alberta (CANA). Rociety (CT8) acknowledges the past contributions of and the Family Physician Airways Group of Canada. PART 1 O	



I Feel Different Because of A Flare-up

- More shortness of breath than usual
- Using more of your rescue/reliever medication
- Coughing more than usual/started coughing
- Changes in phlegm/sputum
 - More phlegm/sputum
 - Is now yellow or green or brown
 - Is thicker/stickier than usual
- Symptoms that last longer than 2 days are signs of a flare-up



Action Plan (Part 2)

My COPD Action Plan		Date		Fied	Canadian Respiratory Guidelines	COPP
Patient's Copy	(Patient's Name)			K4	duidennes	Trustable, Proventable.
This is to tell me how I will take	care of myself when I have a COPI	O flare-up.				
My goals are						
My support contacts are	(Name & Phone Number)		and			
	(Name & Phone Number)			.0	Name & Phone Number)	
Prescriptions for COPD flare-u	p (Patient to take to pharmacist as i	needed for sympt	oms)			
How often for (B) If the first antibiotic was tal	ken for a fiare-up in the last 3 months Dose:	, use this different	Dose:# antibiotic instead		PHN)	
How often: fo	preath than usual, start prednisone r #days: nes, I will tell my doctor, respiratory ed					<u> </u>
Start P	lan if ent	er ve	MON	/ 70	ne on	day



My Actions

- Notify contact person
- See Primary Care Provider
 OR
- Start additional treatment according to your Action
 Plan Part 2; this may include:
 - Rescue/Reliever Medication
 - Antibiotic
 - Prednisone
 - Oxygen





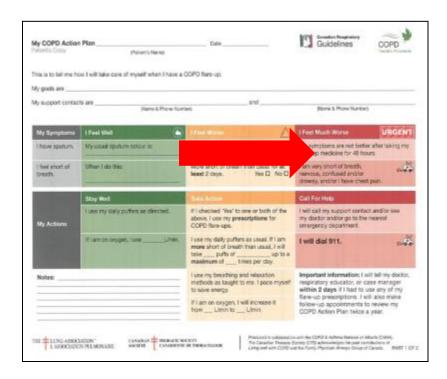
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Allers Offer	is flow up to the last 5 months, in the last 5 months in the last 5 months in the last 1 mont	ian tro different with hydro	Door Police	Dators Signature	



My Actions (Red Zone)

- Notify contact person and/or see primary care provider
- After 5pm or on weekends, go to the hospital emergency department or urgent care centre.







How do I get this started?

- Book an extended primary care provider appointment
- Action plan = Prescription contract
- Build TRUST with your primary care provider and pharmacist
- Remember, this prescription contract does not replace a visit with your doctor.





Key Messages:

- It is important to know what to do in the case of a 'flare-up'
- Early action is key!
- Using your action plan can help avoid a trip to the ER
- Make a partnership with your Primary Care Provider and your Pharmacist!
- Let us help you be an advocate for *you*!





Action Plan for Change

- Something YOU want to do
- 2. Achievable (something you can expect to accomplish this week)
- 3. Action-specific
- 4. Answers the questions:
 - What
 - How much
 - When
 - How often
- 5. Confidence level of 7 or more (you are sure that you will complete your entire plan at a level of 7 or higher on a scale from 0 = not at all sure to 10 = absolutely sure)

Source: Lorig, Holman, and Sobel et al. Living A Healthy Life with Chronic Conditions, Canadian 4th Ed, 2013

Thank you



Questions?

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