

COPD Medicine. No one ever showed me how to use this.

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Taking prescriptions correctly

- Taking prescriptions can be a challenge
- Busy schedules
- Complicated instructions
- Not sure why you are taking them
- Multitude of different medications



Respiratory Medications

Rescue (Quick relief) Medications

- Treats symptoms once present
- Work quickly
- Lasts 4-6 hours
- Short-acting, quick relief reliever



Rescue Medications

SABA – Short Acting Beta Agonists

Short Acting Beta Agonists – SABA

- Proventil HFA, Ventolin HFA, ProAir HFA
 - 2 puffs Q4-6hrs



- Albuterol (Nebulized)
 - 1 vial BID/QID, Q4, etc



- Xopenex HFA
 - MDI 1-2 puffs Q4-6hrs
 - Neb: 1 vial TID/Q4, etc



- ProAir Respiclick (DPI)
 - Q4-6hrs



Respiratory Medications

Maintenance (Controller) Medications

- Prevent or controls symptoms before they are present
- Must be taken every day as directed to be effective
- Start to work gradually, may last 4 to 24 hours
- May reduce need for rescue medications
- Long-acting controller



Maintenance Medications

Long Acting Beta Agonists (LABA)

Long Acting Beta Agonists (LABA)

- Serevent (DPI Diskus, MDI)

- 1 capsule BID



- Brovana (Nebulized)

- 1 unit dose BID



- Perforomist (Nebulized)

- 1 unit dose BID



- Arcapta (DPI with capsules)

- 1 capsule QD



- Striverdi (Respimat MDI)

- 2 puffs BID



Maintenance Medications

Short-Acting Muscarinic Receptor Antagonists (SAMA)

Short-Acting Muscarinic Receptor Antagonists (SAMA)

- Atrovent (MDI)
 - 2 puffs QID
- Ipratropium (Nebulized)
 - 1 vial TID-QID



Maintenance Medications

Long-Acting Muscarinic Receptor Antagonists (LAMA)

Long-Acting Muscarinic Receptor Antagonists (LAMA)

- Tudorza (DPI)
 - 1 puff BID



- Incruse Ellipta (DPI)
 - 1 puff QD



- Spiriva Respimat (SMI)
 - 2 inhalations QD



- Spiriva Handihaler (DPI)
 - 1 capsule QD



- Seebri Neohaler (DPI)
 - 1 capsule BID



-Magnair (nebulizer) BID



Maintenance Medications

Inhaled Corticosteroids - ICS

Inhaled Corticosteroids – ICS

- QVAR Redihaler (MDI)
 - 2 puffs BID



- ArmonAir (DPI)
 - 1 puff BID



- Flovent (MDI or DPI)
 - 2 puffs BID



- Asmanex (DPI)
 - 1 puff QID



- Arnuity Ellipta (DPI)
 - 1 puff QD



- Pulmicort Flexhaler (DPI)
 - 2 puffs BID



- Alvesco (MDI)
 - 2 puffs BID



Maintenance Medications

Combined Medications – LABA/LAMA

Combination Medications: Long-acting beta agonists/Long-acting muscarinic receptor antagonists (LABA/LAMA)

– Anoro Ellipta (DPI)

- 1 puff QD



– Bevespi (MDI)

- 2 puffs BID



– Utibron (DPI)

- 1 capsule BID



– Stiolto (Respimat)

- 2 puffs QD



Maintenance Medications

Combined Medications: LABA/ICS

Combined Medications: Long-Acting Beta Agonists/Inhaled Corticosteroids (LABA/ICS)

- Advair (DPI)
 - 1 puff BID
- Symbicort (MDI)
 - 2 puffs BID
- Dulera (MDI)
 - 2 puffs BID
- Breo Ellipta (DPI)
 - 1 puff QD
- AirDuo (DPI)
 - 1 puff BID



Maintenance Medications

Combine Medications – LABA/LAMA/ICS

Combined Medications: Long-acting beta agonists/Long-acting muscarinic receptor antagonists/Inhaled Corticosteroids (LABA/LAMA/ICS) COPD USE ONLY

– Trelegy Ellipta (DPI)

- 1 puff QD
- COPD only
- Convenient



Different Delivery Devices:

- Pressurized Meter Dose Inhalers (pMDI)
 - Slow breath in
 - Use valved holding chamber or spacer
- Passive Dry Powder Inhalers (Diskus or Ellipta-steady and deep inhale), (Pressair, RespiClick, Handihaler, Neohaler, etc)
 - Faster breath in
 - Store in dry place
- Soft Mist Inhalers (SMI)
 - Slow deep breath
- Nebulizers
 - Liquid
 - Breath normal

MDI's

- Priming your inhaler (test sprays)
 - Mixes the ingredients so that each dose contains the right blend of medication and propellant
 - Releasing a spray “some require up to 4 test sprays”
 - Check the package insert or online resource for proper priming
 - When is it empty? Most MDIs now have counters or you have to know how many puffs per canister AND keep track
 - Floating/shaking it is not accurate

Cleaning and Storage of MDI/DPI

Cleaning:

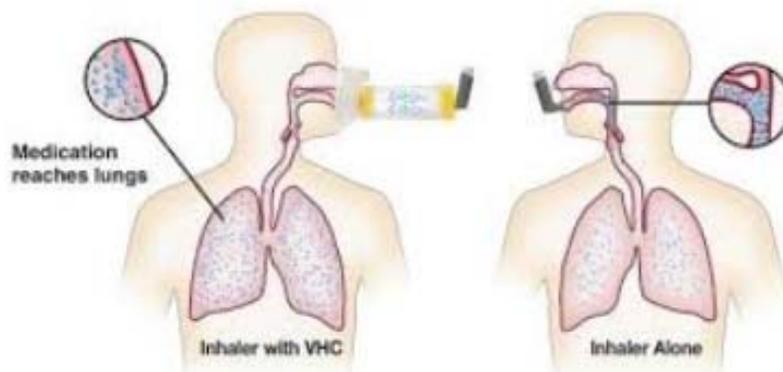
- Most should be cleaned weekly. A few devices recommend daily cleaning.
- Each device has its own recommendations
- Never use water on a DPI

Storage:

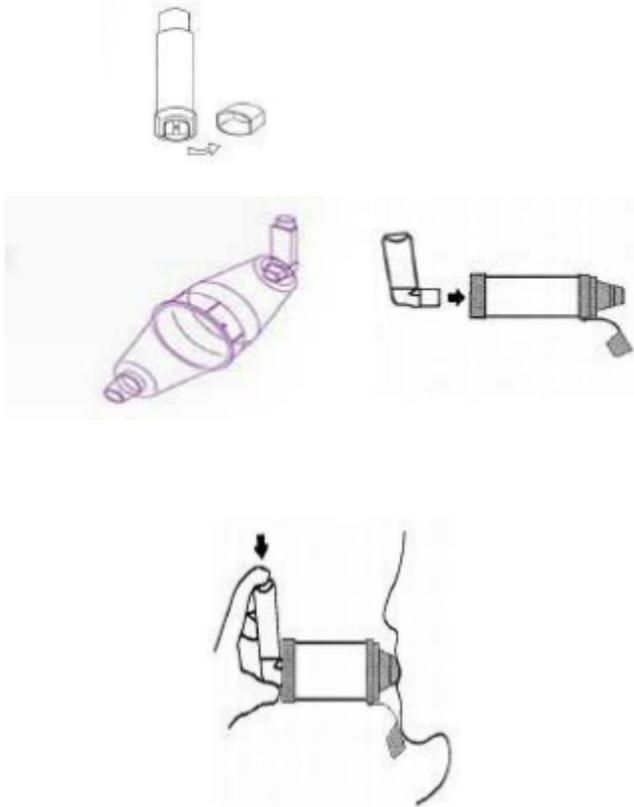
- Room temperature
- Never store dry powder inhaler in humid environment

Spacers vs. Valved Holding Chambers

- Spacers: create space between your mouth and the medicine. The space helps medicine slow down and break into smaller particle size for better distribution.
- Valved Holding Chambers: include one-way valve at mouthpiece. This creates space that traps and holds the medicine, giving time to take slow, deep breath.
 - One-way valve stops you from accidentally exhaling into the tube.
 - Many are lined on inside with an anti-static coating preventing medicine from sticking to the sides of the chamber. Clean weekly as needed by washing with warm soapy water and air dry. Never dry with towel, this may ruin the anti-static coating.



Using a Holding Chamber/Spacer



1. Remove the caps from the inhaler and the chamber/spacer
2. Insert the inhaler mouthpiece into the rubber end of the chamber/spacer.
3. Shake and then place chamber/spacer mouthpiece into mouth and close lips.
4. Administer one puff and breathe in through mouth, slowly and deeply for 5 seconds. (A valved holding chamber should not whistle during inhalation).
5. Hold your breath for 5-10 seconds.
6. If instructed to take more than 1 puff, wait a minute, then repeat.

Dry Powder Inhalers

Dry powder inhalers come in many different delivery devices which have different methods to properly use!



Diskus



Neohaler



Flexhaler



Tudorza Pressair



Ellipta



Respiclick



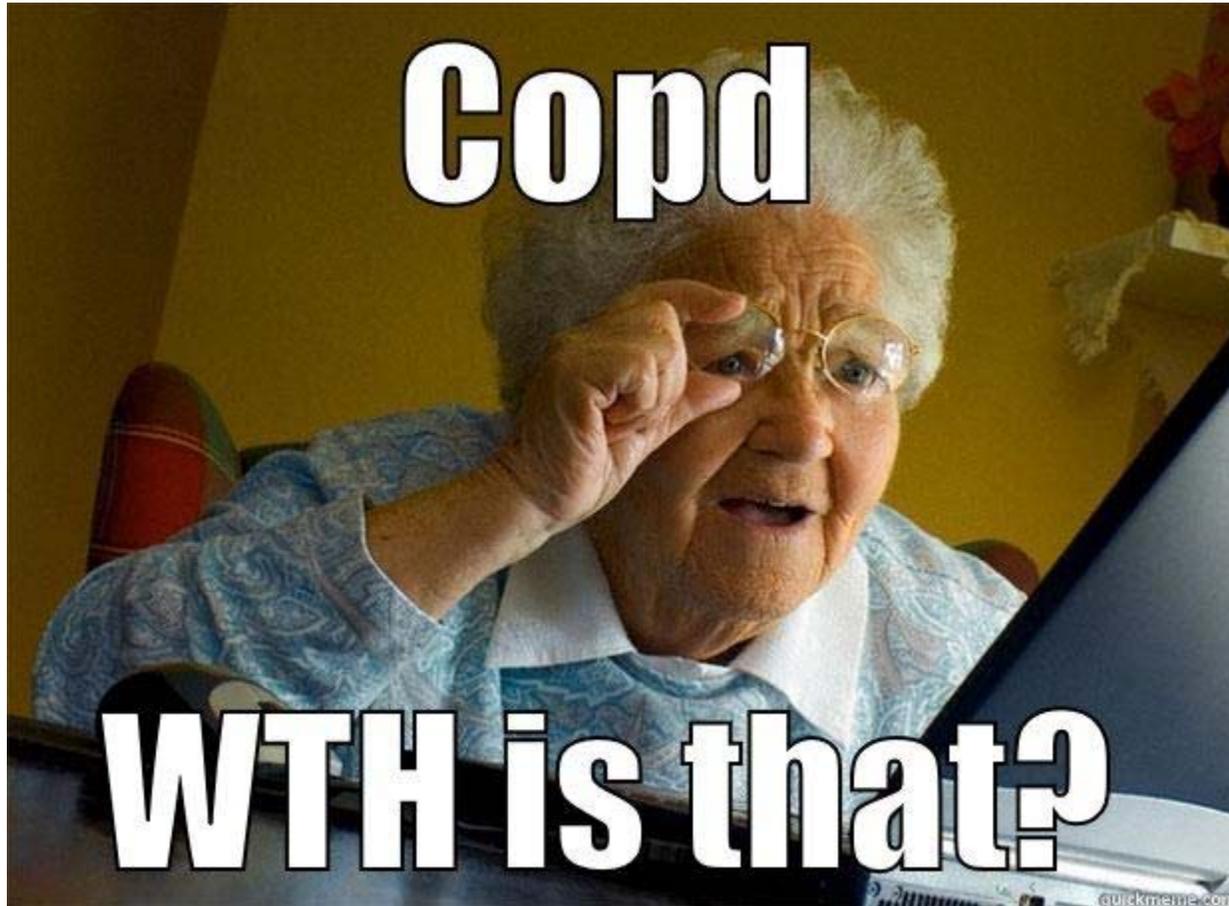
Handihaler



Soft Mist Inhaler
(Respimat)



Redihaler



Diskus

Advair, Serevent, Flovent

1. Hold the device level.
2. Rotate thumb grip while holding case
3. Push lever until you hear it click.
4. Turn away and breathe out.
5. Put mouthpiece in mouth and breathe in quickly and deeply.
6. Remove from mouth. Hold for 10 sec.
7. Close the Diskus.
8. Rinse and spit. Brush teeth.

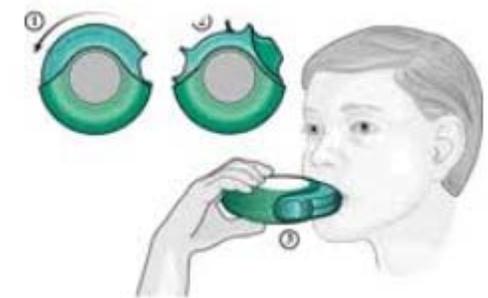
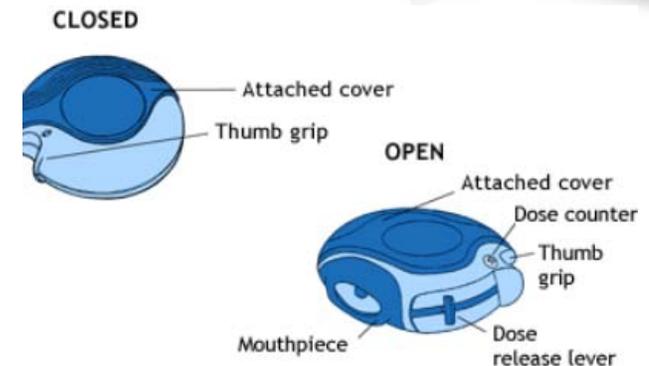
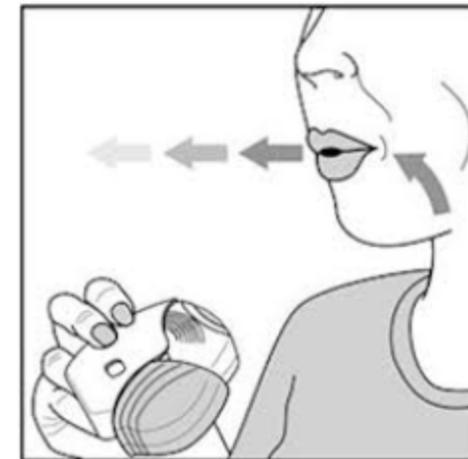


Figure 1: Diskus

Ellipta

Anoro, Breo, Incruse, Arnuity, Trellegy

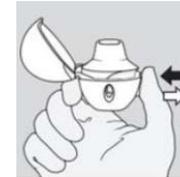
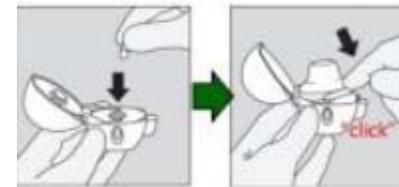
1. Open the cover of inhaler. Slide the cover down to expose the mouthpiece. You should hear a click. Do not share this kind of inhaler.
2. Breathe out.
3. Place mouthpiece in between lips and take one long, steady, deep breath. Do not block the air vents.
4. Remove the inhaler from your mouth and hold your breath 3-4 seconds.
5. Breathe out slowly and gently.
6. Close the inhaler.
7. Rinse mouth with any inhaler that contains ICS (Trellegy).



Handihaler

Spiriva

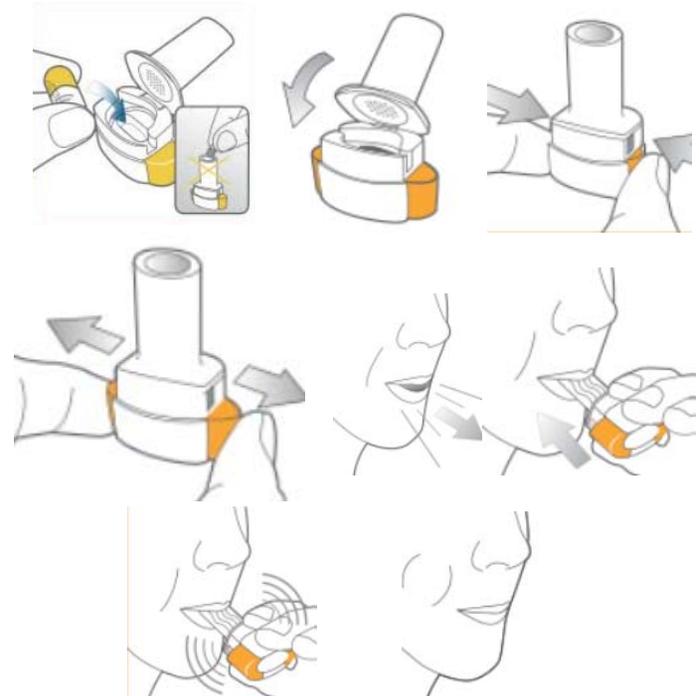
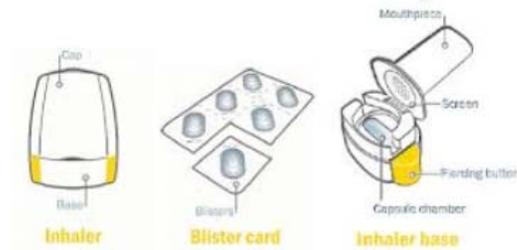
1. Open the HandiHaler device. Separate only one of the blisters from the blister card; then open the blister.
2. Insert the capsule and close the mouthpiece firmly against the gray base until you hear a click.
3. Press the green piercing button once until it is flat (flush) against the base, then release.
4. Breathe out completely. Then, with the Handihaler in your mouth, breathe in deeply until your lungs are full. You should hear or feel the capsule vibrate (rattle).
5. **Remember to take your full daily dose, you must inhale twice from the same capsule!**



Neohaler

Seebri, Utibron, Arcapta

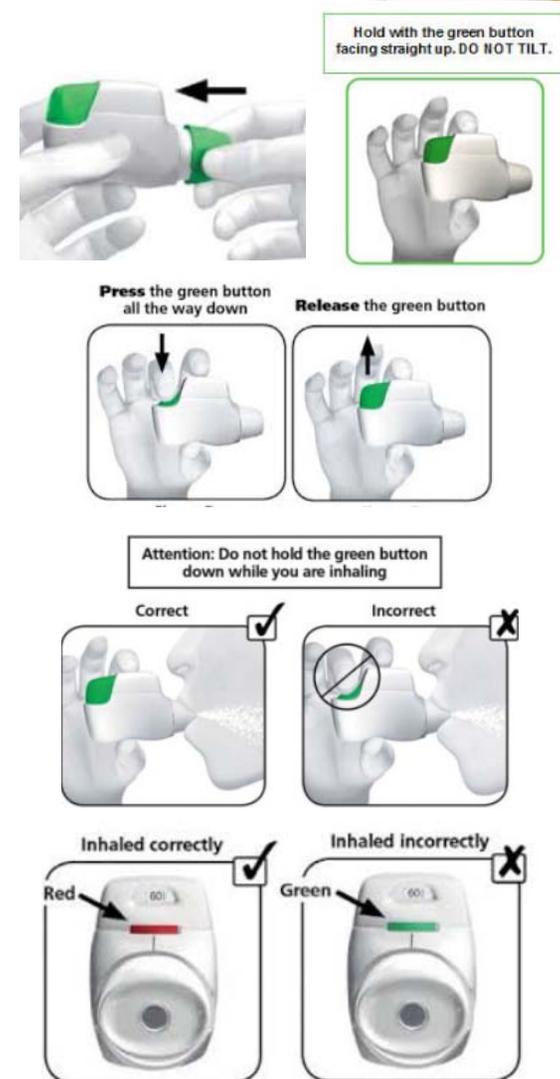
1. Remove cap.
2. Hold the base and tilt mouthpiece to open.
3. Remove 1 capsule from foil and place capsule in chamber.
4. Close the mouthpiece until it clicks.
5. Holding the inhaler upright, full press both buttons one time to pierce the capsule.
6. Release the piercing buttons fully.
7. Breathe out.
8. Inhale the medicine. Breathe in rapidly but steadily and as deeply as you can. As you breathe in through the inhaler, the capsule spins around in the chamber and you should hear a whirring noise. If you do not hear a whirring noise, the capsule may be stuck in the chamber. If this happens, open the inhaler and carefully loosen the capsule by tapping the base of the inhaler.
9. Hold breath for 5 to 10 seconds while removing inhaler from mouth. Then breathe out.
10. Patient can repeat the inhalation a second time if needed with the same capsule.



Pressair

Tudorza

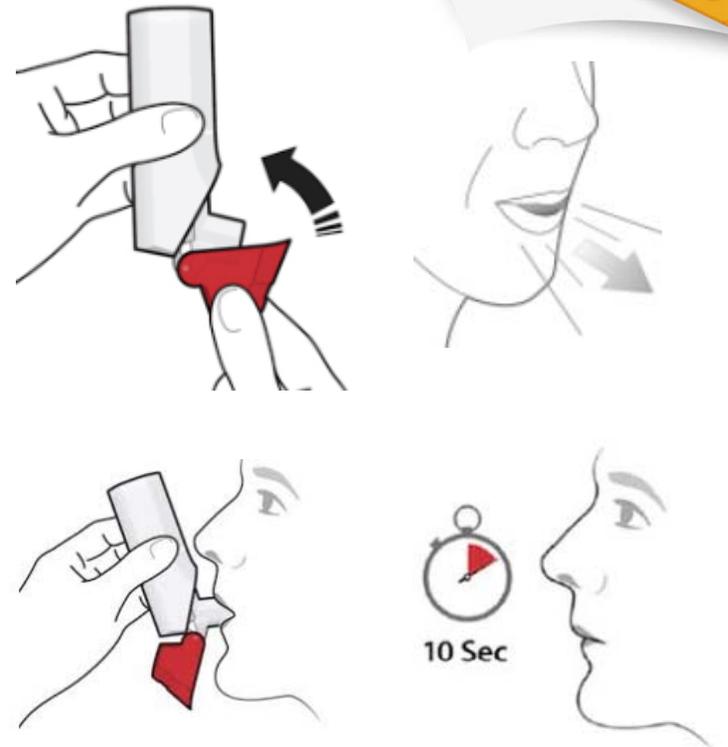
1. Remove cap. Hold inhaler with the mouthpiece facing you (green button up), but not inside your mouth.
2. Before putting in mouth, press the green button and release.
3. Stop and check the control window to make sure it is ready. Red-no, Green-Go.
4. Breathe out completely, then put your lips around mouthpiece.
5. Breathe in quickly and deeply through your mouth. You will hear a click sound. Keep breathing in after the click.
6. Remove the inhaler and hold breath.
7. Check the control window. Red-correct, Green-incorrect.
8. Place the cap back on the inhaler.



RespiClick

ProAir

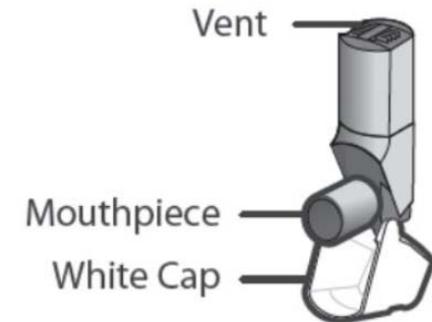
1. Hold inhaler upright as you open the cap fully.
2. Turn your head and breathe out completely.
3. Place mouthpiece in your mouth and breathe in fast and deep.
4. Hold your breath for 10 sec or as long as you can comfortably.
5. Close the cap firmly on the mouthpiece.
6. If you are instructed to take more than one puff, wait a minute and then repeat.



Redihaler

QVAR

1. Open the cap, breath out fully away from device. It is not necessary to shake or prime.
2. Place mouthpiece in your mouth and close lips around it.
3. Hold upright, do not cover vents.
4. Inhale deeply to release the medicine.
5. Remove inhaler, hold breath 5-10 seconds, then breath out slowly away from device.
6. Close the cap after inhaling to prepare for next puff.
7. If prescribed, repeat steps 1-5.
8. Rinse mouth with water and spit.
9. Do not use with spacer or VHC.



Soft Mist Inhaler (Respimat)

Spiriva, Combivent, Stiolto, Striverdi

Preparing for first use

1. Remove clear base. With cap closed, press the safety catch while pulling off the clear base. Be careful not to touch the piercing element located inside the bottom of the base. Write the discard by date on the label of the inhaler – 3 months from the date the cartridge is inserted.
2. Insert cartridge by pushing the narrow end of the cartridge into the inhaler. Place inhaler on a firm surface and push down firmly until clicks into place.
3. Replace clear base back into place until it clicks. Do not remove the clear base again.
4. Keep cap closed. Turn clear base in the direction of the arrows on label until it clicks (half turn).
5. Flip cap until it snaps fully open.
6. Point inhaler toward ground. Press the dose-release button. Close the cap.
7. Repeat steps 4-6 until spray is visible. Once spray is visible you must repeat steps 4-6 three more times.
8. Patient can ask pharmacist to load medication.



Soft Mist Inhaler (Respimat)

Spiriva, Combivent, Stiolto, Striverdi

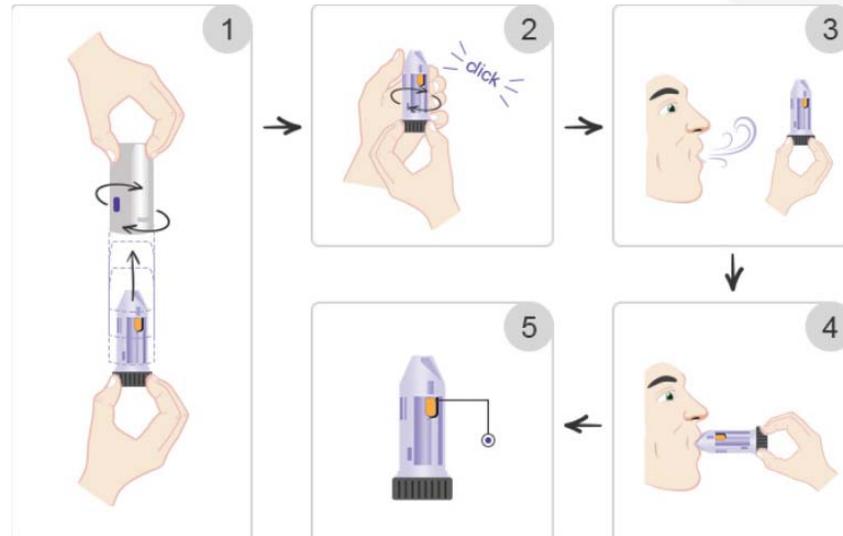
1. Turn while cap is closed. Turn the clear base in the direction of the arrows on the label until it clicks (half turn)
2. Flip cap until it snaps fully open.
3. Breathe out slowly and fully and then close lips around end of mouthpiece without covering the air vents.
4. Point inhaler to the back of throat.
5. While taking in a slow, deep breath through mouth, press the dose-release button and continue to breathe in slowly for as long as able.
6. Hold breath for 10 seconds or as long as comfortable.
7. Close the cap until you use it again.
8. There is no need for a spacer/chamber with this device.



Flexhaler

Pulmicort, Asmanex

1. Prime the inhaler. You only need to do this the first time you use a new Flexhaler.
2. Load a dose. Holding the inhaler in upright position, twist the grip as far as it will go in one direction till it clicks, then twist it all the way back in the other direction to hear another click.
3. Inhale the dose. Turn away from the inhaler and breathe out.
4. Then place the mouthpiece in your mouth, close lips around it, and inhale deeply. Hold breath for 10 sec or as long as can comfortably.
5. Rinse your mouth with water and spit after each dose to reduce the risk of developing thrush.





"I stopped to smell the flowers.
Where's my inhaler?"

In-Check Dial

How do we know the patient can produce adequate negative force for their inhaled medication??



- The In-Check Dial is designed to simulate the internal resistance of several common inhaler devices, and measure inspiratory flow.
- Patients that cannot achieve the suggested inspiratory flow for their inhaler may not gain maximum benefit from their prescribed medication, and this can be factored in when selecting the most suitable medication and device for the patient
- <https://www.securanova.com.pl/download.php?plik=61>
Link to In-check Dial instructions

Patient Education

- Teach-to-Goal Steps
 - Assess patient baseline technique/knowledge
 - Provide verbal instruction along with demonstration of correct technique
 - Patient “teach back” of correct technique
 - Repeat steps 2 & 3 until mastery, sufficient technique or cycle/time limit reached
- Patients need to know their medications, what they do and how to use delivery devices correctly

More information

- AllergyAsthmaNetwork.org for Respiratory Inhaler guides and posters
- www.lung.org for Patient Education Materials
- Copdfoundation.org

INHALED QUICK RELIEF MEDICATIONS



Medication Class: Short-acting beta 2-Agonist

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Accuneb nebulized (albuterol sulfate)	Tx-Bronchospasm 2-12 years of age	Nebulize 3-4 a day as needed 0.63 mg albuterol/3 mL 1.25 mg albuterol/3 mL	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription
Albuterol Nebulized 0.083%	Tx-Bronchospasm 2 and older	Nebulize 2.5 mg (one vial) 3-4 times a day 2.5 mg/3 mL	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription
Albuterol Nebulized 0.5%	Tx-Bronchospasm 12 and older	Nebulize 2.5 mg 3-4 times a day. Dilute 0.5 mL of the 0.5% solution in 3 mL sterile normal saline solution	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription
ProAir HFA (albuterol sulfate)	Tx-Bronchospasm 4 and older	2 inhalations every 4-6 hours 90 mcg (200 doses)	New and if not used in >2 wks. 3 test sprays, shake before each spray	Clean sleeve weekly with warm running water; allow to completely dry before	Discard 12 months from date foil tray is opened OR when dose counter reads "0"
ProAir RespiClick (albuterol sulfate)	Tx and prevention of bronchospasm 4 & older prevention EIB 4 & older	2 inhalations every 4-6 hours, 1 inhalation every 4 hours may be sufficient for some pts. For EIB prevention 2 inhalations 15-30 minutes before exercise (200 doses)	Does not require priming	Wipe the mouthpiece with dry cloth occasionally	Discard 13 months from date foil tray is opened, after the expiration date OR when dose counter reads "0" whichever comes first
Proventil HFA (albuterol sulfate)	Tx-Bronchospasm 4 and older	2 inhalations every 4-6 hours 90 mcg (200 doses)	New and if not used in >2 wks. 4 test sprays, shake before each spray	Clean sleeve weekly with warm running water; allow to completely dry before using.	Count doses
Ventolin HFA (albuterol sulfate)	Tx-Bronchospasm 4 and older	2 inhalations every 4-6 hours 90 mcg (200 doses)	New and if not used in >2 wks. 4 test sprays, shake before each spray	Clean sleeve weekly with warm running water; allow to completely dry before using.	Discard with dose counter reads "0" or at expiration date
Xopenex Nebulized (levalbuterol)	Tx-Bronchospasm 6 and older	Ages 6-11, nebulize 0.31-0.63 mg 3 times a day Ages ≥12 nebulize 0.63-1.25 mg 3 times a day 0.31/3 mL, 0.63/3 mL, 1.25/3 mL	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription
Xopenex HFA (levalbuterol tartare)	Tx-Bronchospasm 4 and older	2 inhalations every 4-6 hours 45 mcg (200 doses)	New and if not used > 3 days; 4 test sprays	Clean sleeve weekly with warm running water; allow to completely dry before using.	Count doses

* Contains lactose

INHALED QUICK RELIEF MEDICATIONS



Medication Class: Short-acting anticholinergic

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Atrovent HFA (ipratropium bromide)	COPD	2 inhalations 4 times a day 17 mcg per inhalation (200 doses)	New and if not used > 3 days; 2 test sprays	Clean sleeve weekly with warm running water; allow to completely dry before using.	Discard with dose counter reads "0" or at expiration date
Atrovent Nebulized (ipratropium bromide 0.02%)	COPD	Nebulize 3-4 times a day 500 mcg/2.5 mL	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription

Medication Class: Short-acting anticholinergic

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Combivent Respimat	COPD	One inhalation 4 times a day 20/100 mcg (60 or 120 doses)	New: 4 visible sprays, if not used for >3 days; 1 spray if not used for >21 days, 4 visible sprays	Clean mouthpiece with damp cloth at least 1 time a week	3 months after the cartridge inserted OR when inhaler locks
Duoneb Nebulized (ipratropium and albuterol)	COPD	Nebulize 4 times a day 0.5/2.5 mg per unit dose	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription

INHALED CONTROLLER MEDICATIONS



Medication Class: Long-acting beta 2-Agonist

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Arcapta Neohaler DPI* (indacaterol)	COPD	1 inhalation once daily 75 mcg (30 doses)	No priming necessary	May use a clean, dry cloth to clean as needed	When capsules are gone, get new prescription/device
Brovana Nebulized (aformoterol tartate)	COPD	Nebulize twice daily 15 mcg/2 mL unit dose	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription
Performist Nebulized (formoterol fumarate)	COPD	Nebulize twice daily 20 mcg/2 mL unit dose	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	When unit doses are gone, get new prescription
Serevent Diskus DPI*	Asthma 4 and older COPD	Asthma-1 inhalation twice daily COPD-1 inhalation twice daily 50 mcg (60 doses)	No priming necessary	Wipe the mouthpiece with dry cloth occasionally	Discard with dose counter reads "0" OR 6 weeks after opening foil pouch
Striverdi Respimat (olodaterol)	COPD	2 inhalations once daily mcg (200 doses)	5 New: 4 visible sprays, if not used for >3 days; 1 spray if not used for >21 days, 4 visible sprays	Clean mouthpiece with damp cloth at least weekly	3 months after the cartridge inserted OR when inhaler locks

Medication Class: Long-acting anticholinergic

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Incruse Ellipta DPI* (umeclidinium)	COPD	1 inhalation once daily 62.5mcg (30 doses)	No priming necessary	Clean, dry cloth to clean as needed	Discard 6 weeks from date foil pouch opened OR when dose counter reads "0"
Spiriva Handihaler DPI* (tiotropium bromide)	COPD	2 inhalations of a single capsule once daily: 18 mcg per cap (5, 30, or 90 capsules)	No priming necessary	Clean as needed, rinse with warm water, dry completely	When capsules are gone, get new prescription/device
Seebri Neohaler (glycopyrrolate)	COPD	Inhalation of single capsule twice daily 15.6 mcg (60 capsules)	No priming necessary	Clean, dry cloth to clean as needed	When capsules are gone, get new prescription/device
Spiriva Respimat (tiotropium bromide)	Asthma-6 and older COPD	2 inhalations once daily Asthma-1.25 mcg, COPD 2.5 mcg (60 or 28 metered actuations)	New: 4 visible sprays, if not used for >3 days; 1 spray if not used for >21 days, 4 visible sprays	Clean mouthpiece with damp cloth or tissue at least 1 time a week	3 months after the cartridge inserted OR when inhaler locks
Tudorza Pressair DPI* (aclidinium bromide)	COPD	1 inhalation twice daily 400 mcg (60 doses)	No priming necessary	Clean, dry cloth to clean as needed	Discard 45 days after pouch opened OR when device locks

INHALED CONTROLLER MEDICATIONS



Medication Class: Inhaled Corticosteroid (ICS)

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Alvesco HFA (ciclesonide)	Asthma 12 and older	80-320 mcg, twice daily 80 mcg or 160 mcg (60 actuations)	New and if not used for ≥10 days; 3 test sprays	Clean mouthpiece & front hole where medicine comes out with dry tissue weekly	Discard with dose counter reads "0"
ArmonAir Respiclick	Asthma 12 and older	55 mcg, 113 mcg, 232 mcg 1 puff twice daily	Does not require priming	Wipe mouthpiece with dry cloth occasionally	Discard 13 months from date foil tray is opened, after the expiration date OR when dose counter reads "0" whichever comes first
Arnuity Ellipta DPI* (fluticasone furoate)	Asthma 12 and older	1 inhalation, once daily 100 mcg or 200 mcg (30 doses)	Does not require priming	Wipe mouthpiece with dry cloth occasionally	Discard 6 weeks from date foil tray is opened OR when dose counter reads "0"
Asmanex Twisthaler DPI* (mometason furoate)	Asthma 4 and older	Ages 4-11; 110 mcg once daily Age ≥12; 220 mcg once daily, 440 twice daily 110 mcg or 220 mcg (14, 30, 60, 120 doses)	New and if not used in >2 wks. 3 test sprays, shake before each spray	Clean sleeve weekly with warm running water; allow to completely dry before using.	Discard 45 days after opening foil pouch OR when dose counter reads "0"
Flovent HFA (fluticasone propionate)	Asthma 4 and older	Ages 4-11; 88 mcg twice daily Age ≥12; 88-440 mcg twice daily 44 mcg, 110 mcg, 220 mcg (120 doses)	New: shake 5 seconds then spray, repeat 3 more times, shaking between. If not used in 7 days: shake 5 seconds then 1 spray	Clean spray hole weekly w/damp cotton swab. Wipe mouthpiece w/damp tissue & allow to dry. Don't remove canister from actuator.	Discard when dose counter reads "000" OR at expiration date
Flovent Diskus DPI* (fluticasone propionate)	Asthma 4 and older	Ages 4-11; 50-100 mcg twice daily Age ≥12; 100-1000 mcg twice daily 50mcg, 100 mcg, 250mcg (60 doses)	Does not require priming	Wipe mouthpiece with dry cloth	Discard when dose counter reads "0" OR 6 wks after opening 50 mcg Diskus or 8 wks after opening 100 or 200 mcg Diskus
Pulmicort Flexhaler DPI* (budesonide)	Asthma 6 and older	Ages 6-17; 180-360 mcg twice daily Age ≥18; 360-720 mcg twice daily 90mcg (60 doses) 180 mcg (120 doses)	New: hold upright, remove white lid, twist and click brown grip twice	Wipe with dry cloth weekly	Discard with dose counter reads "0" in middle of dose indicator window
Pulmicort Respules Nebulized (budesonide)	Asthma 12 months to 8 years	0.5-1.0 mg total daily dose 0.25 mg, 0.5 mg, or 1.0 mg per unit	Nebulized medications do not require priming	Clean nebulizer per manufacturer's instructions	Keep in foil package, sensitive to light. Discard ampules if not used within 2 weeks of opened foil package
QVAR Redihaler (beclomethasone dipropionate)	Asthma 4 and older	Ages 4-11; 40-80 mcg twice daily Age ≥12; 40-320 mcg twice daily 40mcg, 80mcg (120 actuations)	Does not require priming	Clean mouthpiece with clean, dry cloth	Discard when dose counter reads "0" OR expiration date

INHALED CONTROLLER MEDICATIONS



Medication Class: Combination - ICS and Long-acting beta 2-Agonist

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Advair Diskus DPI* (fluticasone propionate and salmeterol)	Asthma 4 and older COPD	1 inhalation twice daily 100/50 mcg, 250/50. 500/50 (60 doses)	Does not require priming	Wipe mouthpiece with dry cloth	Discard when counter reads "0" OR 4 wks after foil pouch opened
Advair HFA (fluticasone and salmeterol)	Asthma 12 and older	2 inhalations twice daily 45/21 mcg, 115/21, 230/21 per inhalation (60 or 120 actuations)	New: Shake 5 seconds then spray, repeat 3 more times, shaking between. If not used in 4 wks or if dropped: 2 test sprays, shaking between	Clean spray hole weekly with damp cotton swab. Wipe mouthpiece with damp tissue & allow to dry. Don't remove canister from actuator.	Discard when dose counter reads "000" or at expiration date
AirDuo Respiclick (fluticasone propionate and salmeterol)	Asthma 12 and older	55/14 mcg, 113/14 mcg, 232/14 mcg 1 inhalation twice daily	Does not require priming	Wipe mouthpiece with dry cloth	Discard 13 months from date foil tray is opened, after the expiration date OR when dose counter reads "0" whichever comes first
Breo Ellipta DPI* (fluticasone furoate, vilanterol)	COPD Asthma 18 and older	1 inhalation once daily 100/25 mcg (14 or 30 doses)	Does not require priming	Clean mouthpiece with clean, dry tissue if needed	Discard 6 weeks from date foil tray opened or when dose counter reads "0"
Dulera HFA (mometason furoate, formoterol fumarate dihydrate)	Asthma 12 and older	2 inhalations twice daily 100/5 mcg or 200/5 mcg (60 or 120 actuations)	New and if not used in >5 days; 4 sprays, shake between	Clean mouthpiece with clean, dry tissue weekly	Discard when dose counter reads "0" or at expiration date
Symbicort HFA (budesonide and formoterol fumarate dihydrate)	Asthma 6 and older COPD	Asthma 2 inhalations twice daily 80/4.5 mcg, 160/4.5 mcg COPD 2 inhalations twice daily 160/4.5 mcg per inhalation (120 doses)	New and if not used in >2 wks. 4 test sprays, shake before each spray	Wipe inside & outside of mouthpiece with clean, dry cloth. Do not take inhaler apart.	Discard when dose counter reads "0" OR 3 months after foil pouch opened

INHALED CONTROLLER MEDICATIONS



Medication Class: Long-acting anticholinergic and Long-acting beta 2-Agonist

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Anoro Ellipta DPI* (umeclidinium and vilanterol)	COPD	one inhalation once daily 62.5 mcg/25 mcg (30 doses)	Does not require priming	Clean mouthpiece with clean, dry tissue if needed	Discard 6 weeks from date foil tray opened OR when dose counter reads "0"
Bevespi MDI (glycopyrrolate and formoterol fumarate)	COPD	2 inhalations twice daily 9 mcg/4.8 mcg (120 actuations)	New: 4 visible sprays. If not used for > 7 days: 2 sprays	Weekly, remove canister from actuator, set aside. Remove cap, rinse actuator, air dry overnight, reassemble. Reprime 2 sprays	Discard when dose counter reads "0" OR 3 months after removed from foil pouch
Stiolto Respimat* (tiotropium bromide and olodaterol)	COPD	2 inhalations once daily 5 mcg/5 mcg 60 or 28 metered actuations)	New: 4 visible sprays. If not used for >3 days: 1 spray. If not used for >21 days: 4 visible sprays	Clean mouthpiece with damp cloth at least 1 time a week	3 months after the cartridge inserted OR when inhaler locks
Utibron Neohaler (indacaterol and glycopyrrolate)	COPD	Inhalation of a single capsule twice daily 27.5 mcg/15.6 mcg (6 or 60 capsules)	Does not require priming	May use clean, dry cloth if needed	When capsules are gone, get new prescription/device

Medication Class: Inhaled Corticosteroid and Long-acting anticholinergic and Long-acting beta 2-Agonist

Medication Name	Indication/FDA-Age Recommendation	Doses-Strengths	Priming	Cleaning	How to know when to discard
Trelegy Ellipta DPI* (fluticasone furoate, umeclidinium and vilanterol)	COPD	one inhalation once daily 100 mcg/62.5 mcg/25 mcg (30 doses)	Does not require priming	Clean mouthpiece with clean, dry tissue if needed	Discard 6 weeks from date foil tray opened OR when dose counter reads "0"