






















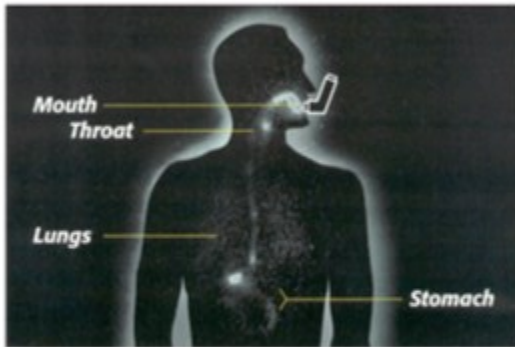


Asthma Device Quick Guide

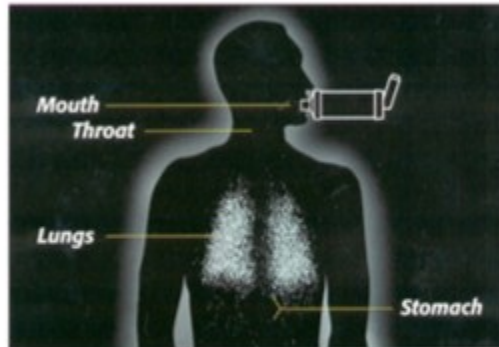
Asthma Devices	Medications (Pictures courtesy of the Asthma & Allergy Network)		Type of Device	Need a spacer	Age considerations	Special considerations
	Quick Reliever	Controller				
Metered Dose Inhaler (MDI)	 Ventolin® (albuterol)  ProAir® (albuterol)  Proventil® (albuterol)  Xopenex® (levalbuterol)  Atrovent® (ipratropium bromide)	 Flovent® (fluticasone)  Advair® (fluticasone/salmeterol)  Dulera® (mometasone/formoterol)  Asmanex® (mometasone)  Symbicort® (budesonide/formoterol)  Alvesco® (ciclesonide)	HFA (hydrofluoroalkine)	Yes	Infants and small children under the age of 6 – 10 (depending on developmental level of child) may need to use a spacer with a mask to properly get the medication into the lungs.	Always use with a spacer Shake before use Prime when first opened, or not used for several weeks
Diskus®		 Advair® (fluticasone/salmeterol)  Flovent® (fluticasone)	DPI (Dry Powder Inhaler)	No	Small children under the age of 6 – 10 (depending on developmental level of child) may not have the high inspiratory force needed to get the medication into the lungs.	After actuating dose, do not tip over or blow back into device
Twisthaler®		 Asmanex® (mometasone)	DPI (Dry Powder Inhaler)	No		Good option for those who only want to use once daily or do not use a spacer
Flexhaler®		 Pulmicort® (budesonide)	DPI (Dry Powder Inhaler)	No		Do not blow back into device.
RespiClick®	 ProAir® (albuterol)	 ArmonAir® (fluticasone)  AirDuo® (fluticasone/salmeterol)	DPI (Dry Powder Inhaler)	No		Good option for those who do not use spacers with albuterol
Ellipta®		 Arnuity® (fluticasone)  Breo® (fluticasone/vilanterol)	DPI (Dry Powder Inhaler)	No		Do not blow back into device or cover vent during inhalation
Redihaler™		 QVAR® (beclomethasone)	HFA (hydrofluoroalkine)	No	Must be developmentally able to inhale through mouth	Breath actuated, do not prime or use with a spacer
Respimat®	 Combivent® (albuterol/ipratropium bromide)	 Spiriva® (tiotropium bromide)	SMI (Soft Mist Inhaler)	No		Ensure patient knows steps for preparing and priming for 1st time use.

Why use a Spacer with an Inhaler?



Inhaler alone

When an inhaler is used alone, medicine ends up in the mouth, throat, stomach and lungs.



Inhaler used with spacer device

When an inhaler is used with a spacer device, more medicine is delivered to the lungs.

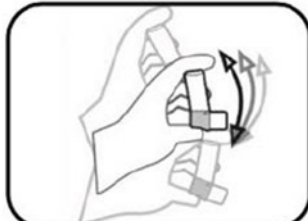
"Comparative respiratory deposition of ^{99m}Tc labeled particles of albuterol using a metered dose inhaler, a metered dose inhaler with Aerochamber® spacer and Optichamber® spacer in healthy human volunteer using gamma-scintigraphy," R. Beihn, PhD, Scintiprox, Inc., Indianapolis, IN and D. Doherty, MD, Dept. of Pulmonology University of Kentucky Medical Center, Lexington, KY, 1997. Images kindly provided by Respiroics Healthscan Inc. Allies Against Asthma Center for Pediatric Research, 855 W. Brambleton Ave, Norfolk, VA 23510, 757-668-6435

Spacer with Mask

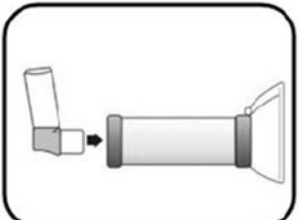
Use a spacer with the inhaler. More medicine will go into the lungs.



1. Sit with your child in your lap.



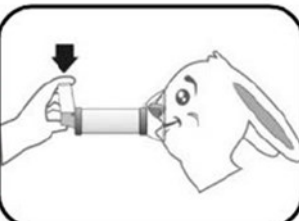
2. Shake the inhaler.



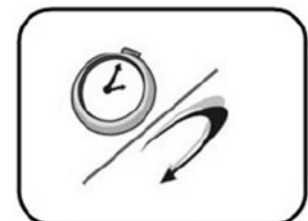
3. Remove cap from the inhaler. Place inhaler into spacer.



4. Seal the mask over the nose and mouth.



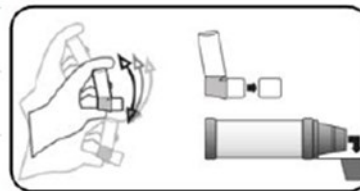
5. Push down on the inhaler. Release 1 puff into the spacer.



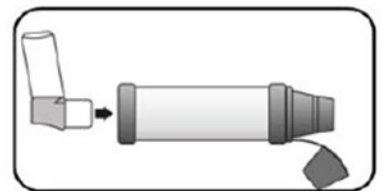
6. Hold mask on face for 5-10 breaths. Remove mask from face. Wait about 30 seconds. Repeat steps 1-6 for each puff.

Spacer with Mouthpiece

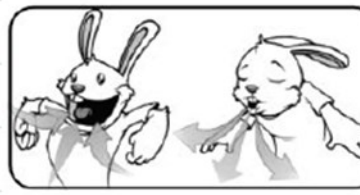
Use a spacer with the inhaler. More medicine will go into the lungs.



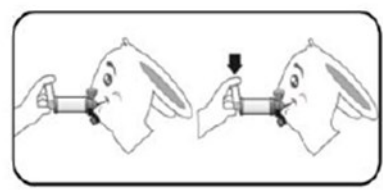
1. Shake the inhaler. Remove the caps from the inhaler and spacer.



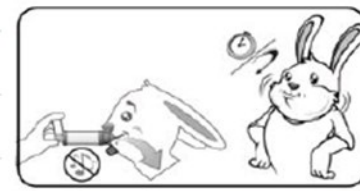
2. Place the inhaler into the back of the spacer.



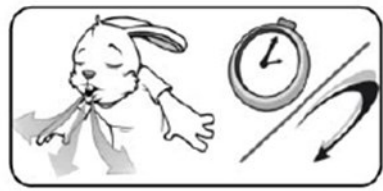
3. Take a deep breath and let it all the way out.



4. Seal lips around the mouthpiece. Push down on the inhaler releasing 1 puff into the spacer.



5. Breathe in slowly through the mouth. Hold breath for 10 seconds. The whistle sound means the breath is too fast. Slow down.



6. Let out your breath. Wait about 30 seconds. Repeat steps 1-6 for more puffs.

Use mask with ages under 6-10

Use mouthpiece with ages 6-10 and over

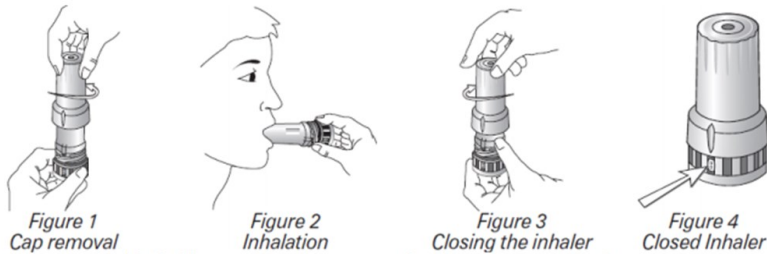
Diskus®



Examples: Advair® (fluticasone/salmeterol),
 Flovent® (fluticasone)

1. Remove cover by placing thumb on thumb grip and pushing to the side
2. Place thumb on the lever and move to the side until you hear a click and the counter decreases by 1
3. Hold diskus in a flat position with mouthpiece towards you.
4. Exhale away from diskus
5. Place mouth on mouthpiece with a tight seal
6. Breathe in through your mouth quickly and deeply
7. Hold breath as long as you can, around 10 seconds
8. Remove from mouth and exhale away from device, close diskus until you hear a click. Repeat steps 1-7 for each dose

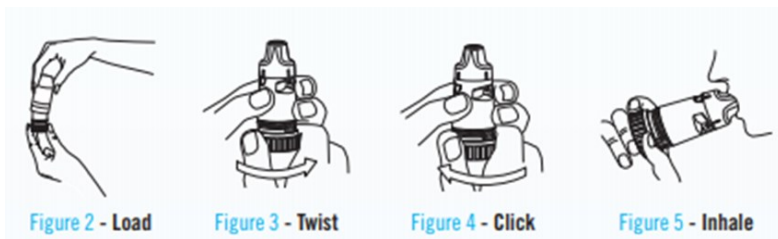
Twisthaler®



Examples: Asmanex® (mometasone)

1. Holding Twisthaler upright, twist cap to remove the cover. Ensure counter has decreased by 1
2. Breathe out away from inhaler
3. Place mouth over mouthpiece with a tight seal, holding device parallel to the ground
4. Inhale quickly and deeply
5. Hold breath as long as you can, around 10 seconds
6. Remove Twisthaler from mouth and exhale slowly away from device.
7. Place cap back on and twist until you hear a click and arrow is lined up with the counter
8. Repeat steps 1-7 for each dose

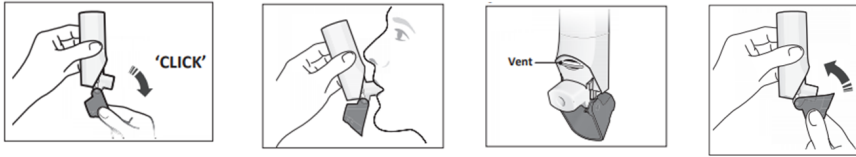
Flexhaler®



1. Holding Flexhaler upright, remove cap
2. Twist the brown grip until you hear a click and counter has decreased by 1, then click back
3. Place mouth over mouthpiece with a tight seal, holding device parallel to the ground
4. Inhale quickly and deeply
5. Hold breath as long as you can, around 10 seconds
6. Remove Flexhaler from mouth and exhale slowly away from device.
7. Place cap back on and twist until you hear a click and arrow is lined up with the counter
8. Repeat steps 1-7 for each dose

Examples: Pulmicort® (budesonide)

RespiClick®



Examples: ProAir® (albuterol), AirDuo® (fluticasone/salmeterol), ArmonAir® (fluticasone)

1. Holding RespiClick upright, open red cap until you hear a click
2. Exhale away from device
3. Place mouth over mouthpiece with a tight seal (do not block vent with mouth or fingers)
4. Inhale quickly and deeply
5. Hold breath as long as you can, around 10 seconds
6. Remove RespiClick from mouth and exhale slowly away from device.
7. Place cap back on until it clicks closed
8. Steps 1-7 for each dose

RediHaler™



Examples: QVAR® (beclomethasone)

1. Holding RediHaler upright, open white cap until you hear a click
2. Exhale away from device
3. Place mouth over mouthpiece with a tight seal (do not block vent on top with fingers)
4. Inhale deeply
5. Hold breath as long as you can, 5-10 seconds
6. Remove RediHaler from mouth and exhale slowly away from device.
7. Place cap back on until it clicks closed
8. Repeat steps 1-7 for each dose

Ellipta®

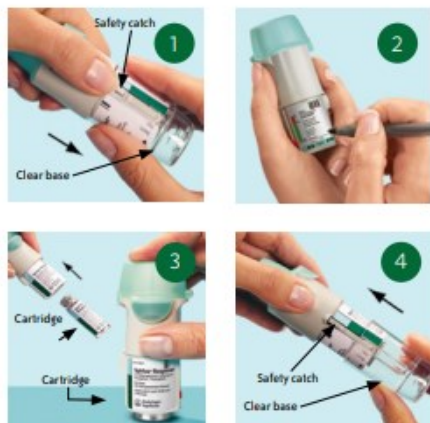


Examples: Breo® (fluticasone/vilanterol), Arnuity® (fluticasone)

1. Holding Ellipta upright, slide the cover down to expose the mouthpiece and to hear a click
2. Exhale away from device
3. Place mouth over mouthpiece with a tight seal (do not block vent with fingers)
4. Take one long steady deep breath in through your mouth.
5. Hold breath as long as you can, about 3-4 seconds
6. Remove Ellipta from mouth and exhale slowly away from device.
7. Close cover back over mouthpiece as far as it will go
8. Repeat steps 1-7 for each dose

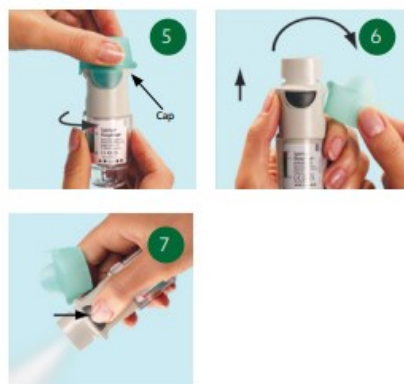
Respimat®

Preparing for first-time use



1. With the cap closed, press the safety latch while pulling off the clear base, be careful not to touch the piercing element inside the bottom of the clear base
2. Write the discard by date on the label (3 months from the date the cartridge is inserted into the inhaler)
3. Take the cartridge out of the box and push the narrow end of the cartridge into the inhaler. About 1/8th of an inch will remain visible when correctly inserted. The cartridge can be pushed against a firm surface to ensure that it is correctly inserted. Do not remove the cartridge once it has been inserted.
4. Put the clear base back into place and do not remove again.

Priming for first-time use



1. Hold the inhaler upright with the cap closed and turn the clear base in the direction of the black arrows on the label until it clicks (half a turn).
2. Flip the cap until it snaps fully open
3. Point the inhaler toward the ground (away from face). Press the dose-release button. Close the cap.
4. Repeat steps 1-3 until a spray is visible
5. Once the spray is visible, you must repeat steps 1-3 three more times to make sure the inhaler is prepared for use.

Directions for use



Examples: **Spiriva®** (tiotropium bromide), **Combivent®** (ipratropium bromide & albuterol)

1. Use the TOP Acronym
2. T- TURN the clear base in the direction of the arrows on the label until it clicks (keep the cap closed while doing this)
3. O- OPEN the cap until it snaps fully open
4. P- Breathe out slowly away from device, close your lips around the mouthpiece without covering air vents. While taking a slow deep breath through your mouth, PRESS the dose release button and continue to breathe in slowly. Hold breath as long as you are comfortable.
5. Repeat steps for each puff
6. Close the cap until you use your inhaler again