

How to use this document

Purpose: The “Inhaler Technique: Step-By-Step Instructions” document is a healthcare team training tool that can be used as an *optional* inhaler competency self-assessment tool for health care team members and clinicians. This guide is intended to review available inhaler device instructions for use and pertinent counseling points. **This document is not intended to be shared with patients**, but rather as a tool for healthcare members to assess patients for appropriate use and adherence to inhaler therapy.

PLEASE NOTE

- This document has not been reviewed for patient use, and is not appropriate to be shared as a patient education printable.
- This list may not be inclusive of all available inhaler types or formulations.
- This document outlines general steps for the types of inhalers, and includes videos with general steps (click hyperlink title). Please refer to individual product package inserts for specific instructions.

Learning Objectives:

1. Review appropriate technique for available inhaler devices.
2. List counseling points pertinent to individual inhaler devices, including but not limited to priming (if needed), cleaning, and expiration dates, etc.
3. Identify common confusion points or opportunities for enhancing patient inhaler use and technique.

Some general inhaler tips:

- Each inhaler type carries different technique and maintenance recommendations to ensure ideal device performance (e.g. actions such as priming, cleaning, avoid covering air vents, etc.). It can be helpful to remind patients of these steps for their specific device.
- Many inhalers have an expiration date after opening or with first use. Encourage patients to write a “use-by-date” directly on their inhalers.
- Remind patients to monitor remaining dose counters and request refills or renewals on medication when approximately 1 week of doses remains.
- For inhaled medications that contain a steroid (e.g. beclomethasone, budesonide, ciclesonide, flunisolide, fluticasone, mometasone, etc.), instruct patients to rinse mouth with water and spit out after each use to prevent thrush (fungal infection in the mouth).

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Inhaler Technique: Step-By-Step Instructions

Metered Dose Inhalers (MDI) [\(click for video\)](#)

Examples:

- Albuterol (ProAir® , Proventil® , Ventolin® , Generic )
- Levalbuterol (Xopenex® )
- Ipratropium (Atrovent® )
- Ciclesonide (Alvesco® ) *
- Formoterol and Glycopyrrolate (Bevespi Aerosphere® )
- Mometasone (Asmanex® )*
- Fluticasone (Flovent® )*
- Salmeterol and Fluticasone (Advair® )*
- Formoterol and Mometasone (Dulera® )*
- Formoterol and Budesonide (Symbicort® )*

Instructions:

1. Shake well (5 seconds)^	
2. Remove cap & check mouthpiece for foreign objects	
3. Breathe out through mouth, away from inhaler	
4. Close lips around mouthpiece. Push canister down WHILE breathing in DEEPLY & SLOWLY	
5. Remove mouthpiece & close mouth. Hold breath for 10 seconds or as long as possible. If needed, wait 15 seconds to 1 minute before repeating.	
6. Replace cap	

^Alvesco® and Atrovent® do not require shaking.

Important considerations and counseling points:

- *Priming Required:* Depending on inhaler, may need to be primed before first use, if not used in a certain number of days, if dropped, and/or if cleaned. Please refer to individual package inserts for instructions.
- *Cleaning Required:* Below instructions do not apply to Advair®, Alvesco®, Asmanex®, Dulera®, Flovent®, or Symbicort®. Please refer to individual package inserts for specific instructions.
 1. Remove canister
 2. Run warm water through actuator for 30 seconds
 3. Turn actuator upside down and rinse again for 30 seconds
 4. Shake excess water off
 5. Let air-dry overnight
- May use spacers (e.g. Aerochamber®) with MDI devices.

*For inhalers that contain a steroid, instruct patients to rinse mouth with water and spit out after each use to prevent thrush (fungal infection in the mouth).

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Inhaler Technique: Step-By-Step Instructions






Metered Dose Inhaler (MDI) - Breath Actuated [\(click for video\)](#)

Example:



- Beclomethasone (QVAR RediHaler®)

Instructions:

1. Open cap			
2. Breathe out through mouth, away from inhaler			
3. Close lips around mouthpiece. Breathe in DEEPLY.			
4. Remove mouthpiece & close mouth. Hold breath for 10 seconds or as long as possible.			
5. Close cap. If more than one inhalation required, repeat steps 1-5.			

Important considerations and counseling points:




- No priming, shaking, or hand-breath coordination required.
- Clean mouthpiece weekly with clean, dry tissue or cloth. Never submerge the inhaler or run under water.
- Should NOT be used with spacer.
- To avoid blocking airflow through the device, do not cover air vent on top of inhaler.
- This inhaler contains a steroid. Instruct patients to rinse mouth with water and spit out after each use to prevent thrush (fungal infection in the mouth).

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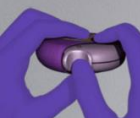




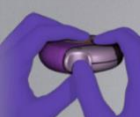
Inhaler Technique: Step-By-Step Instructions

[Dry Powder Inhaler \(DPI\) – Diskus \(click for video\)](#)

Examples:

- Fluticasone (Flovent® )
- Salmeterol (Serevent® )
- Fluticasone and salmeterol (Advair® )

Instructions:

1. Open diskus			
2. Slide lever away from mouthpiece until clicks			
3. Breathe out through mouth, away from inhaler			
4. Close lips around mouthpiece. Breathe in DEEPLY & QUICKLY			
5. Remove mouthpiece & close mouth. Hold breath for 10 seconds or as long as possible			
6. Close diskus			

Important considerations and counseling points:

- Always use in level, flat position. (e.g. “hold like a hamburger”)
- No routine cleaning required. If needed, clean mouthpiece using dry tissue. Never submerge the inhaler or run under water.
- Label the inhaler with the date diskus is removed from foil pouch and “use-by-date” on front of inhaler.
 - Flovent Diskus
 - 50 mcg = 6 weeks after opening
 - 100 & 250 mcg = 8 weeks after opening
 - Serevent Diskus
 - 6 weeks after opening
 - Advair Diskus
 - 4 weeks after opening



*For inhalers that contain a steroid, instruct patients to rinse mouth with water and spit out after each use to prevent thrush (fungal infection in the mouth).

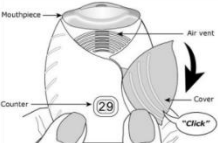
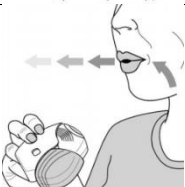

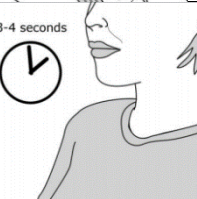
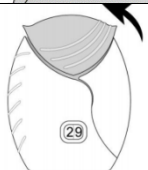
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Dry Powder Inhaler (DPI) – Ellipta [\(click for video\)](#)

Examples:

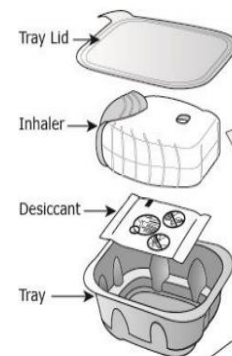
- Fluticasone (Arnuity®) *
- Umeclidinium (Incruse®) *
- Vilanterol and Umeclidinium (Anoro®) *
- Vilanterol and Fluticasone (Breo®) *
- Vilanterol, Umeclidinium, and Fluticasone (Trelegy®) *

Instructions:

1. Open cover	
2. Breathe out through mouth, away from inhaler	
3. Close lips around mouthpiece. Breathe in DEEPLY & STEADY.	
4. Remove mouthpiece & close mouth. Hold breath for 3-4 seconds or as long as possible	
5. Close cover	

Important considerations and counseling points:

- Always use in level, flat position. (e.g. “hold like a hamburger”)
- To avoid blocking airflow through the device, do not block air vent (can be found near the mouth piece)
- No routine cleaning required. If needed, clean mouthpiece using dry tissue. Never submerge the inhaler or run under water.
- Inhaler expires 6 weeks after opening tray. Label the inhaler with the date it is removed from tray and “use-by-date”



*For inhalers that contain a steroid, instruct patients to rinse mouth with water and spit out after each use to prevent thrush (fungal infection in the mouth).

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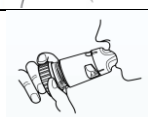


Dry Powder Inhaler (DPI) – Flexhaler [\(click for video\)](#)

Example:



- Budesonide (Pulmicort®)

Instructions:

1. Hold inhaler by brown grip. Turn white cover to lift off.	
2. Twist brown grip in 1 direction.	
3. Twist brown grip fully back in other direction.	
4. Breathe out through mouth, away from inhaler	
5. Close lips around mouthpiece. Breathe in DEEPLY & FORCEFULLY.	
6. Remove mouthpiece & exhale. If needed, repeat steps in 15 seconds to 1 minute.	
7. Place cover back on & twist shut.	

Important considerations and counseling points:

Priming required only prior to first use.

1. Hold inhaler by brown grip
2. Turn white cover to lift off
3. Twist brown grip in 1 direction
4. Twist brown grip fully back in other direction
5. Repeat x1

Does not matter which direction brown grip is twisted first.


Clean outside of mouthpiece weekly by wiping with dry tissue. Never submerge the inhaler or run under water.

This inhaler contains a steroid. Instruct patients to rinse mouth with water and spit out after each use to prevent thrush (fungal infection in the mouth).

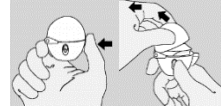

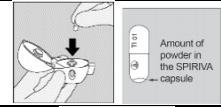
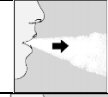

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[Dry Powder Inhaler \(DPI\) - Handihaler \(click for video\)](#)

Example:

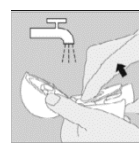
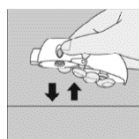
- Tiotropium (Spiriva® )

Instructions:

1. Press green piercing button to open lid.	
2. Open mouthpiece	
3. Remove capsule from blister	
4. Place capsule in center chamber	
5. Close mouthpiece	
6. Press green piercing button ONCE.	
7. Breathe out through mouth, away from inhaler	
8. Close lips around mouthpiece without blocking air intake vents. Breathe in DEEPLY (should hear capsule rattle).	
9. Remove mouthpiece & close mouth. Hold breath for few seconds or as long as possible. Repeat inhalation steps (7-9) with same capsule once.	

Important considerations and counseling points:


- Puncture the capsule using the green button ONCE. Repeated punctures are not necessary.
- To get the full dose each day, must breathe in TWICE from the same capsule.
- If patient does not hear vibrate (rattle) while breathing in, do not press piercing button again. Gently tap device on a table & try inhaling again. If patient still does not hear vibrate, throw away capsule and check chamber for pieces of capsule.
- Always discard capsule after use.
 - Open mouthpiece.
 - Tip out used capsule into trash can.
 - Turn device upside down and gently tap to remove pieces or powder buildup.
 - Close mouthpiece and lid.
- Clean inhaler as needed.
 - Open lid and mouthpiece.
 - Lift green piercing button to open base.
 - Look in center chamber for capsule pieces or powder buildup, and tap out if seen.
 - Rinse device with warm water while pressing green piercing button a few times.
 - Let air dry (~24 hours).





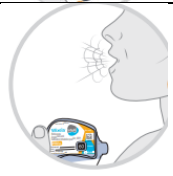



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Dry Powder Inhaler (DPI) - Inhub [\(click for video\)](#)

Example:

- Salmeterol and Fluticasone (Wixela® )

Instructions:

1. Open cover	
2. Push down yellow lever	
3. Breathe out through mouth, away from inhaler	
4. Close lips around mouthpiece. Breathe in DEEPLY and QUICKLY	
5. Remove mouthpiece & close mouth. Hold breath for 10 seconds or as long as possible	
6. Close cover	

Important considerations and counseling points:

- Always use in vertical position, with cap cover pointing down (“like a seahorse”)
- Write date Inhub removed from foil and “use-by-date” (4 weeks) on front
- No cleaning required.
- This inhaler contains a steroid. Instruct patients to rinse mouth with water and spit out after each use to prevent thrush (fungal infection in the mouth).



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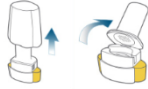


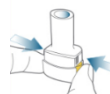





Inhaler Technique: Step-By-Step Instructions

Dry Powder Inhaler (DPI) – Neohaler [\(click for video\)](#)

Examples:

- Indacaterol (Arcapta® )
- Glycopyrrolate (Seebri® )
- Indacaterol and Glycopyrrolate (Utibron® )

Instructions:

1. Pull off cap and open mouthpiece.	
2. Place capsule into capsule chamber	
3. Close mouthpiece	
4. Press BOTH piercing buttons at the same time	
5. Breathe out through mouth, away from inhaler	
6. Close lips around mouthpiece. Breathe steadily in DEEPLY and RAPIDLY (should hear whirling noise)	
7. Remove mouthpiece & close mouth. Hold breath for 5-10 seconds or as long as possible.	
8. Open inhaler to check if powder left in capsule. If powder left, repeat inhalation (most patients empty capsule in ~1-2 inhalations). If no powder left, remove & throw away empty capsule.	
9. Close mouthpiece and put on cap.	

Important considerations and counseling points:


- Do not swallow capsule or place capsule into mouthpiece. Only place capsule in capsule chamber.
- Only press piercing buttons ONCE and ALWAYS release piercing buttons before inhalation
- If patient does not hear whirring noise:
 - Capsule may be stuck in chamber
 - Open mouthpiece and carefully loosen capsule by tapping base of inhaler
 - Do not press piercing buttons again
 - Repeat inhaling process
- Cleaning not required. Can wipe inside and outside of mouthpiece with clean, dry, and lint-free cloth, and remove any powder residue on inhaler with clean, dry, and soft brush.

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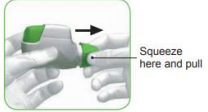
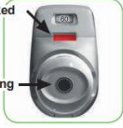







Inhaler Technique: Step-By-Step Instructions

Dry Powder Inhaler (DPI) - Pressair [\(click for video\)](#)

Example:

- Acclidinium (Tudorza® )

Instructions:

1. Remove cap.	 <p>Squeeze here and pull</p>
2. Check mouthpiece for foreign objects. Ensure control window is RED	 <p>Red Check mouthpiece opening</p>
3. Press green button	
4. Ensure control window changes to GREEN	 <p>Green</p>
5. Breathe out through mouth, away from inhaler	
6. Close lips around mouthpiece (do not hold green button). Breathe in DEEPLY and STRONGLY.	
7. Remove mouthpiece & close mouth. Hold breath for 5-10 seconds or as long as possible	
8. Ensure control window is RED	 <p>Red</p>
9. Replace cap	

Important considerations and counseling points:

If control window still green after inhaling, may not have inhaled medication correctly or released green button. Try inhaling again.

Clean outside of mouthpiece with dry tissue or paper towel.

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Dry Powder Inhaler (DPI) – Respiclick [\(click for video\)](#)

Examples:

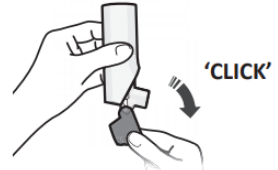

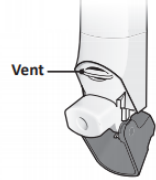

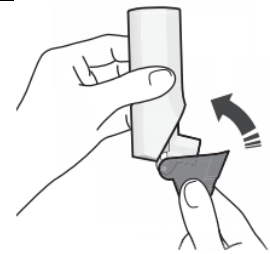


- Albuterol (ProAir®)



- Salmeterol and Fluticasone (AirDuo®) *

Instructions:

1. Open cap	
2. Breathe out through mouth, away from inhaler	
3. Close lips around mouthpiece. Breathe in QUICKLY and DEEPLY.	
4. Remove mouthpiece & close mouth. Hold breath for 10 seconds or as long as possible.	
5. If another dose is needed, close cap & repeat steps	

Important considerations and counseling points:

- No priming, shaking, or hand-breath coordination required.
- Clean mouthpiece with dry cloth or tissue. Never submerge the inhaler or run under water.
- Not designed to be used with spacer.
- To avoid blocking airflow through the device, do not cover air vent.


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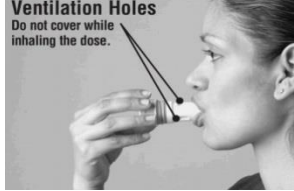

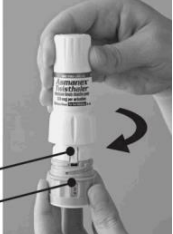
Inhaler Technique: Step-By-Step Instructions

[Dry Powder Inhaler \(DPI\) – Twisthaler \(click for video\)](#)

Example:

- Mometasone (Asmanex[®] )

Instructions:

<p>1. Remove cap by twisting counterclockwise</p>	<p>Hold inhaler in upright position. To open, twist the cap in a counterclockwise direction.</p>  <p>Cap Cap removal loads dose</p> <p>Ventilation Hole</p>
<p>2. Breathe out through mouth, away from inhaler</p>	
<p>3. Close lips around mouthpiece (do not block ventilation holes). Breathe in QUICKLY and DEEPLY.</p>	<p>Ventilation Holes Do not cover while inhaling the dose.</p> 
<p>4. Remove mouthpiece & close mouth. Hold breath for 5-10 seconds or as long as possible</p>	
<p>5. Replace cap by twisting clockwise</p>	<p>Indented Arrow should line up with Dose Counter.</p> <p>Replace cap and turn clockwise until "click".</p>  <p>Indented Arrow</p> <p>Dose Counter</p>

Important considerations and counseling points:

Clean mouthpiece with dry cloth or tissue.



Inhaler expires 45 days after removing from foil.



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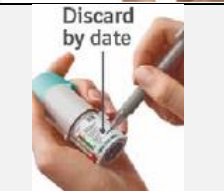

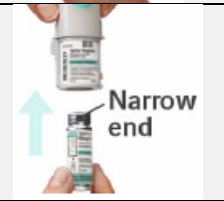
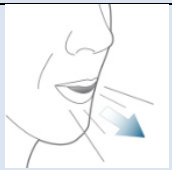

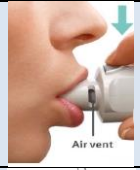





Soft Mist Inhalers - RespiMat [\(click for video\)](#)

Examples:

- Olodaterol (Striverdi®) 
- Tiotropium (Spiriva®) 

- Albuterol and Ipratropium (Combivent®) 
- Olodaterol and Tiotropium (Stiolto®) 

Instructions:

PREPARE FOR FIRST USE/PRIMING		DAILY USE	
1. Remove clear base		1. Turn clear base in the direction of the arrows until it clicks (half a turn)	
2. Write discard date on label (3 months from date cartridge inserted)		2. Open cap	
3. Insert narrow end of cartridge into inhaler		3. Breathe out through mouth, away from inhaler	
4. Place inhaler on surface and push down firmly until clicks into place		4. Close lips around mouthpiece (do not block air vents). Breathe in SLOWLY and DEEPLY while pressing dose release button.	
5. Put clear base back on		5. Remove mouthpiece. Hold breath for 10 seconds or as long as possible.	
6. Turn clear base in the direction of the arrows until it clicks (half a turn)		6. Close cap	
7. Open the cap		Important considerations and counseling points: <ul style="list-style-type: none"> • Do not remove cartridge once inserted. • Priming required with first use or if not used for more than 21 days • Clean mouthpiece, including metal part inside mouthpiece with damp cloth or tissue at least once weekly. Never submerge the inhaler or run under water. 	
8. Point inhaler toward ground and press the dose release button (should see aerosol cloud). Repeat x3 before use.			

PLEASE NOTE: The “Inhaler Technique: Step-By-Step Instructions” document is a healthcare team **training tool** that can be used as an *optional* inhaler **competency self-assessment tool for health care team members and clinicians.** **This document is not intended to be shared with patients.** See cover page for more details.