



Hertfordshire and
West Essex Integrated
Care System

Good Practice Guidance Inhalers and Spacers

Date 6th November 2023

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**Working together
for a healthier future**



Learning Objectives

- Types of inhalers and actions
- Inhaler technique
- Documentation
- What is a spacer device and when is it needed?
- Types of spacers available
- How to use an inhaler with a spacer
- Spacer technique
- Cleaning and maintenance of the inhalers & spacer



Why are Inhalers Used?

Asthma

- Asthma is caused by inflammation (swelling) of the breathing tubes that carry air in and out of the lungs
- A common lung condition that causes occasional breathing difficulties
- The inflammation makes the breathing tubes highly sensitive, so they can temporarily become narrow
- This may occur randomly or after exposure to a trigger such as dust, smoke or allergens
- An acute asthma “attack” is known as an exacerbation

Chronic obstructive pulmonary disease (COPD)

- This condition which causes a progressive decline in lung function
- Symptoms of breathlessness will increase over time and may eventually require the use of oxygen
- It is likely that the person may suffer with a chronic cough and easily become breathless
- Infections are a complication of COPD and can result in a “exacerbation” which can lead to symptoms such as shortness of breath, quantity and colour of phlegm.
- Infections are treated with a course of antibiotics and/or steroids



Inhaler Actions

Bronchodilators/Relievers

- These help to widen the airways and relieve the feeling of breathlessness or “tight chest”
- Some are used for immediate effect and should be readily accessible
- Most commonly prescribed as PRN or when required
- Some do not have an immediate effect as they are long acting and they are prescribed as a regular daily dose

Corticosteroids/Preventers

- Their regular use is essential to reduce airway inflammation which can lead to increase mucus secretion and difficulty in breathing
- To get the full benefits, you need to take your preventer inhaler every day as prescribed (usually morning and evening) even when you're feeling well. This is because the protective effect of the preventer inhaler builds up over time
- Because your preventer inhaler helps stop symptoms coming on in the first place, you may notice you don't need to use your bronchodilator/reliever inhaler as much.



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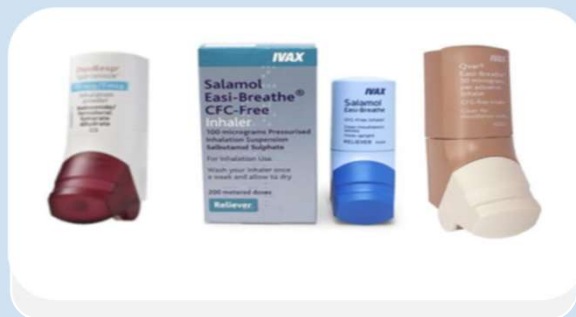


Inhaler Types



Metered dose inhalers (MDIs)

Give the medicine in a spray form (aerosol). For example, Airomir and Salamol. It's good to use a spacer with these.



Breath actuated inhalers (BAIs)

Automatically release a spray of medicine when you begin to inhale. For example, Easi-breathe, and Autohaler.



Dry powder inhalers (DPIs)

Give the medicine in a dry powder instead of a spray. For example, Accuhaler and Turbohaler.



Slow and Steady Inhaler Technique

<https://www.asthma.org.uk/advice/inhaler-videos/pmdi/>

This technique can be use with:

- Metered dose inhaler (MDIs)
- Easi-breathe
- Autohaler
- Respimat
- Spacer devices



This is not an extensive list other inhalers are available



Quick and Deep Inhaler Technique

<https://www.asthma.org.uk/advice/inhaler-videos/accuhaler/>

- Accuhaler
- Handihaler
- Nexthaler
- Breezhaler
- Turbohaler
- Spiromax
- Genuair
- Easihaler
- Elipta



This is not an extensive list other inhalers are available



Seven Steps to using an inhaler device:

1. Prepare the inhaler device
2. Prepare or load the dose
3. Breathe out, fully and gently, but not into the inhaler
4. Tilt the chin up slightly and place the inhaler mouthpiece in the mouth, sealing the lips around the mouthpiece
5. Breathe in:
 - MDI = slow and steady
 - DPI = quick and deep
6. Remove inhaler from the mouth and hold the breath for up to 10 seconds
7. Wait for 30 seconds then repeat as necessary



Inhaler technique

Studies have shown that with a **good** technique only **20-50** percent of the inhaled medicine is deposited into the lung


















With a **poor** technique as little as **5** percent of the inhaled medicine is deposited into the lung

Improve your inhaler technique here!

1. Find your inhaler

2. Scan the QR code

3. Watch the video

<p>pMDI</p> 	<p>Autohaler</p> 	<p>Easyhaler</p> 
<p>Turbohaler</p> 	<p>Respimat</p> 	<p>Handihaler</p> 
<p>Zonda</p> 	<p>Breezhaler</p> 	<p>Ellipta</p> 
<p>Easi-breathe</p> 	<p>Genuair</p> 	<p>Forspiro</p> 
<p>NEXThaler</p> 	<p>Accuhaler</p> 	<p>Spiromax</p> 
<p>Tidal Breathing Spacer</p> 	<p>If you cannot find your inhaler, please Scan Here:</p> 	

This has been endorsed by NHS England's National Inhaler Working Group

Working in Partnership:

East and North Hertfordshire NHS Trust
Hertfordshire Community NHS Trust
Hertfordshire Partnership University NHS Foundation Trust
Stevenage North Primary Care Network (PCN)

In association with:



Common mistakes with inhaler technique

- **Not using the correct technique for the inhaler used**, this applies to both DPIs and MDIs.
- **Not breathing out fully before using the inhaler** - when you breathe out as fully as you can before taking your inhaler, you create more space in your lungs for the next breath in. This means you can breathe in deeper and for longer when you inhale your medication, giving it the best chance to reach the small airways deep inside your lungs.
- **Forgetting to shake your inhaler before use** - some inhaler's such as MDIs need shaking before use to ensure the medicine and propellant mix properly.
- **Not lifting the chin slightly** - this helps the medicine go down into the lungs more efficiently.
- **Breathing in too early or late** - this is where the use of a spacer can be very beneficial.
- **Not waiting between puffs** - with some inhalers such as MDIs, you need to wait at least 30-60 seconds before taking the next puff. This gives the medicine and propellant enough time to mix.
- **Not rinsing mouth after using steroid inhaler** - this is so any medicine stuck in your mouth or throat is cleaned away and can prevent side effects like oral thrush



Documentation

- **Importance of recognising that a reliever inhaler may be needed at times other than the medicines round.**
- If the carer is administering the medication, it is important to witness that the inhaler has been used correctly before signing the MAR chart.
- What should be included in a PRN protocol for reliever inhalers for example:
 - certain activities for which the resident might need it, for example walking to the dining room
 - can they ask for it when needed and manage to use it themselves
 - where is it stored
- Carrying out risk assessment for patients who are self-administering their inhalers should include:
 - is it appropriate and safe?
 - do they have a good inhaler technique
 - understanding of medication use and outcomes
- If consistent refusal or persistent problems administering inhalers, discuss poor technique/compliance with the prescriber
- Reducing waste by carrying forward into next cycle where possible

Did you know?



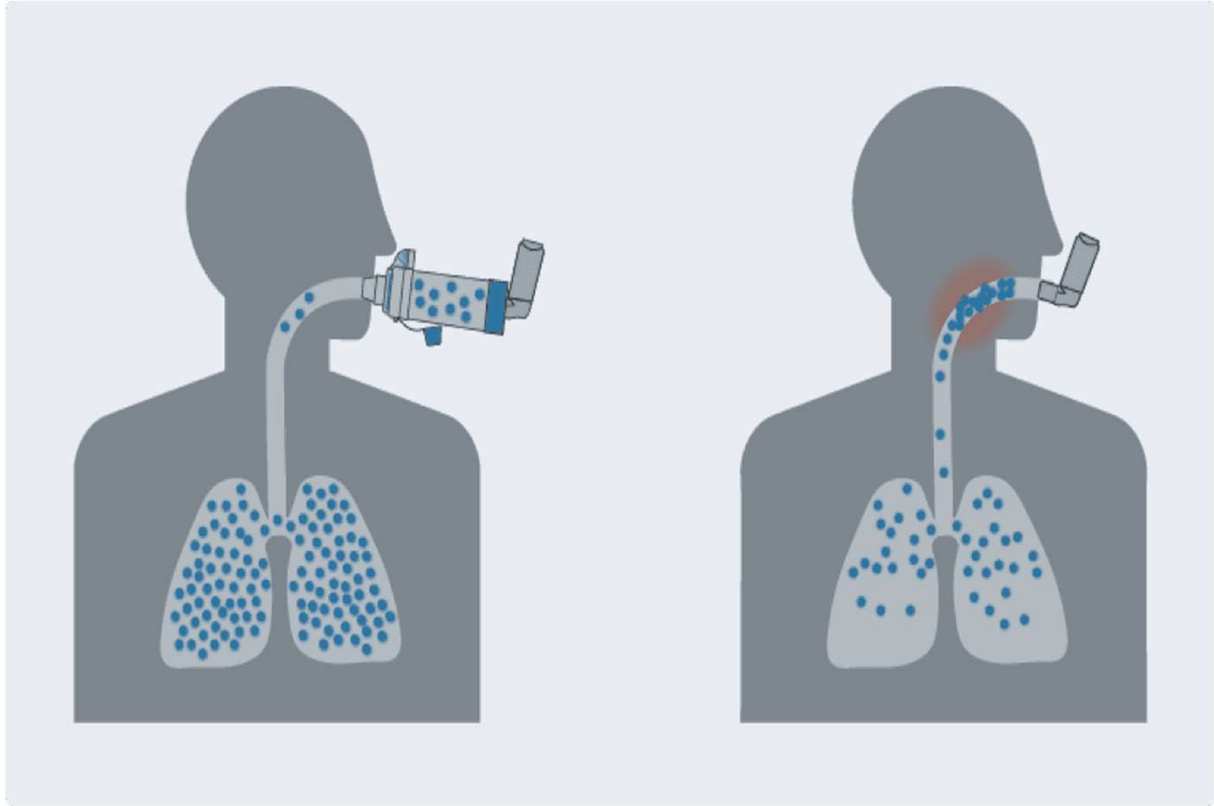
When your pressurised metered dose inhaler is empty it still contains propellants that are powerful greenhouse gases which contribute to global warming



What is a spacer device and when is it needed?

- A spacer is a device that attaches to a metered dose inhaler (MDI). The spacer holds the medication whilst the resident breathes it into their lungs.
- A spacer is available by prescription for residents who may have difficulty with the coordination and control involved using MDIs correctly.
- Not all MDIs are compatible with every brand of spacer.
- You may see mist leaving the side of the resident's mouth this is a visible sign that the resident is not receiving the dose correctly.
- Some residents may find inhaling easier using a device with a face mask.

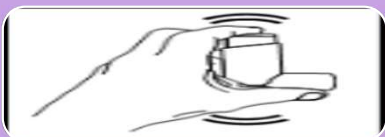




How to use a spacer device with an inhaler



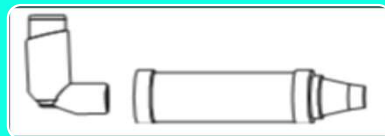
Take the plastic cap off the inhaler mouthpiece and check for any foreign objects



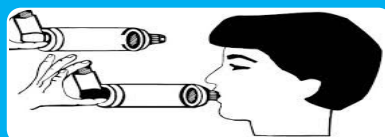
Shake the inhaler well before each puff to distribute the medicine



Remove the plastic cap from the spacer and check the mouthpiece for any foreign objects



Place the mouthpiece of the inhaler into the back of the spacer



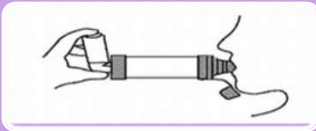
Aid the mouthpiece of the spacer into the residents mouth and encourage them to bite down on the mouthpiece gently and close lips around the mouthpiece to make a seal.



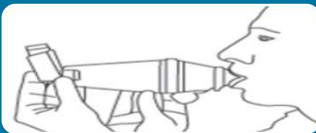
Tidal Technique



Sit or stand up straight and slightly tilt your chin up as it helps the medicine reach your lungs



Press down on the inhaler canister to spray the medication into the spacer



Breathe in and out slowly and steadily five times through the mouthpiece



For each puff of medication, follow the same steps. Wait 30 seconds between puffs. Shake the inhaler each time.



Encourage residents to rinse mouth after use if appropriate.




[How to use a spacer \(multiple breath\) | Asthma UK](#)



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Common spacer mistakes

-  Do not spray more than one puff at a time into the spacer.
-  Do not breathe in too fast. If you hear a whistle sound this is the warning to tell you to slow down when you are breathing in.
-  When using the spacer do not breathe in through your nose.

*****Always replace the caps after use *****



Cleaning and Maintenance

Clean the inhaler mouthpiece at least once a week with a dry tissue.

Put the cap back on the inhaler after each use to keep the mouthpiece clean.

If it's a new spacer, clean it before you use it for the first time, then once a month afterwards.

Gently clean it using a detergent, such as washing-up liquid. Only a small number of brands of spacer are dishwasher safe, so check the instructions on the label.

Be careful not to scrub the inside of your spacer as this might affect the way it works. You can scrub the outside of the spacer and the mouthpiece.

Leave it to air-dry as this helps to reduce static (an electrical charge that builds up) and prevent the medicine sticking to the inside of the spacer.

When it's completely dry, put your spacer back together ready for use.

Your spacer should be replaced at least every year, especially if you use it daily, but some may need to be replaced sooner – ask your GP, asthma nurse or pharmacist if you're unsure.



Useful Resources

1) **Asthma UK website** <https://www.asthma.org.uk/>

2) **PrescQIPP Medicines use in care homes e-learning package**

An e-learning package on medicines use in care homes is available for care home staff, and covers a range of areas including some of those highlighted above. The e-learning package is endorsed by NICE and supports the implementation of recommendations in the NICE guideline on managing medicines in care homes. The package is available via <https://www.prescqipp.info/>. Details for registering will be provided to the care home manager/s.

3) **NICE Guidelines for Managing Medicines in care homes**

This guideline covers good practice for managing medicines in care homes. It aims to promote the safe and effective use of medicines in care homes by advising on processes for prescribing, handling and administering medicines. It also recommends how care and services relating to medicines should be provided to people living in care homes.

[1 Recommendations | Managing medicines in care homes | Guidance | NICE](#)

4) **CQC medicines guidance**

CQC have developed guidance on various topics relating to medicines use within care homes. The guidance can be found via the following website <https://www.cqc.org.uk/guidance-providers/adult-social-care/medicines-information-adult-social-care-services>.



What type of inhaler cannot be used with a spacer?

A) DPI

B) MDI



What type of inhaler cannot be used with a spacer

A) DPI 

B) MDI



How often should you clean and replace spacers?

- A) Daily & Monthly
- B) Weekly & Yearly
- C) Monthly & Yearly



How often should you clean and replace spacers?

A) Daily & Monthly

B) Weekly & Yearly

C) Monthly & Yearly ✓



How often should a preventer inhaler be used?

- A) Daily
- B) Weekly
- C) PRN



How often should a preventer inhaler be used?

- A) Daily ✓
- B) Weekly
- C) PRN



What does MDI stand for?

A) Medicated drug inhaler

B) Metered dose inhaler

C) Managed dose inhaler



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What does MDI stand for?

A) Medicated drug inhaler

B) Metered dose inhaler ✓

C) Managed dose inhaler



How many doses can you spray into a spacer at one time?

- A) Three
- B) Ten
- C) One



How many doses can you spray into a spacer at one time?

A) Three

B) Ten

C) One



Any Questions?



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