

# Categories of Inhaled Medications

Respiration is the act of breathing in and out. Inhaled medications are medications that are taken into the lungs through the nose or mouth. They are also called pulmonary medications. Some inhaled medications are prescribed as “rescue” medications - medication for sudden wheezing or shortness of breath; some are “maintenance” medications - used routinely to prevent the occurrence of distressing respiratory symptoms.



If the person is in distress, use the rescue inhaler as needed. Maintenance inhalers should be used in the prescribed manner, for example, twice daily.

## Commonly Used Inhaled Medications, Side Effects, and Related Care

Category	Examples of Medications	Examples of Side Effects	Related Care
<p><b>Bronchodilators</b></p> <p>Used to relax airway muscles making breathing easier; given by nebulizer or inhaler.</p> <p>Can be short-acting, “rescue” medications or long-acting “maintenance” medications.</p>	<p><b>Rescue</b></p> <p>Proventil Ventolin Duoneb®</p> <p><b>Maintenance</b></p> <p>Atrovent Spiriva® Serevent® Foradil® Brovana®</p>	<ul style="list-style-type: none"> <li>◀ Tremors</li> <li>◀ Dizziness</li> <li>◀ Increased pulse</li> <li>◀ Bad taste in mouth</li> <li>◀ Nausea, vomiting</li> <li>◀ Agitation</li> <li>◀ Hyperactivity</li> </ul> <p><b>Atrovent and Spiriva side effects</b></p> <ul style="list-style-type: none"> <li>◀ Dry mouth</li> <li>◀ Constipation</li> <li>◀ Difficulty passing urine</li> </ul>	<ul style="list-style-type: none"> <li>◀ Observe breathing and secretions</li> <li>◀ Do not share a nebulizer or an inhaler</li> <li>◀ Rinse mouth and spit after use</li> <li>◀ Clean inhaler after use</li> </ul>
<p><b>Steroids*</b></p> <p>Used for maintenance treatment for breathing problems associated with pulmonary disease [COPD]. COPD includes both chronic bronchitis and emphysema.</p>	<p><b>Maintenance</b></p> <p>Advair® Symbicort® Dulera® Breo® QVAR® AeroSpan® Flovent® Pulmicort Respules® Pulmicort Flexhaler® Asmanex® Alvesco®</p>	<ul style="list-style-type: none"> <li>◀ Thrush in the mouth</li> <li>◀ Hoarse voice</li> <li>◀ Cough</li> </ul>	<ul style="list-style-type: none"> <li>◀ Observe breathing and secretions.</li> <li>◀ A spacer must be used when administering steroids to prevent thrush. Ask physician if a spacer is appropriate for this drug or person.</li> <li>◀ Rinse mouth and spit, or brush teeth after use</li> <li>◀ Use a delivery device specific to the drug for that person</li> </ul>

\*Bronchodilators are generally prescribed before steroids because of serious side effects from steroids.

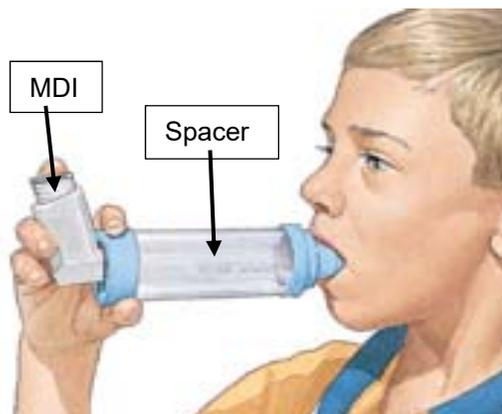
# INHALERS

Inhalers contain either short-acting or long-acting medicines. Short-acting medicines relax and open the breathing tubes in the lungs. These are called rescue inhalers because they work quickly and help “rescue” a person if breathing suddenly becomes difficult. Long-acting inhalers are used daily. They help control asthma and prevent symptoms from occurring. These are called maintenance inhalers because the medicine works more slowly but lasts much longer. Maintenance inhalers do not work to treat sudden symptoms.

## Types of Inhalers

### Metered Dose Inhaler (MDI)

- ◀ Like a mini-aerosol can; pushes out a pre-measured spray of medicine.
- ◀ When the person pushes down on the aerosol container, a measured “puff” of medicine is released.
- ◀ May be used with a spacer or holding chamber to make it easier to use.
- ◀ The spacer eliminates the need to closely coordinate pushing down the inhaler aerosol container and inhaling the medicine.



Boy using MDI with spacer

### Multidose dry powder inhalers



### Dry Powder Inhaler (DPI)

- ◀ Delivers medication in powder form, but doesn't spray out.
- ◀ User must do more of the work, inhaling the powdered medicine quickly and forcefully

### Nebulizer

- ◀ Used when a larger amount of medication is needed or when the person is not able to use the inhaler.
- ◀ Electric or battery powered machine that turns liquid medicine into a fine mist that's inhaled into the lungs.
- ◀ The user breathes in the mist through a mouth piece or facemask.



Medication dispensing chamber

# Certification 1 Skills Checklist: Administering MDI with Spacer

Follow steps 1-8 on "General Checklist for Administering Oral Medications" then

- \_\_\_\_\_ 9. Check equipment and clean if dirty.
- \_\_\_\_\_ 10. Wash hands and put on gloves.
- \_\_\_\_\_ 11. Identify person to receive the medicine and explain you are giving his/her medication for that specific hour.
- \_\_\_\_\_ 12. Assist person to a comfortable sitting position.
- \_\_\_\_\_ 13. Tell person the name of the medication and its purpose when you give the medication to him/her.
- \_\_\_\_\_ 14. Give person tissues.
- \_\_\_\_\_ 15. Invert canister and shake thoroughly.
- \_\_\_\_\_ 16. Insert metal canister into end of mouthpiece; remove protective cap from the inhaler and from the spacer.
- \_\_\_\_\_ 17. If canister is new and never used, you will need to prime it. With mouth-piece pointing into the air, away from everyone, press once on the canister base to ensure canister contains medication and is operating properly. Continue to prime the canister per manufacturer's instructions. If canister is used daily, you do not need to prime it. If canister has not been used in the last 3 days or per manufacturer's instructions, prime it before use.
- \_\_\_\_\_ 18. Put the inhaler into the spacer.
- \_\_\_\_\_ 19. Have person exhale deeply away from the spacer.
- \_\_\_\_\_ 20. Bring the spacer to person's mouth, put the mouthpiece between his/her teeth and close their lips around it.
- \_\_\_\_\_ 21. Press the top of the canister once.
- \_\_\_\_\_ 22. Have person breathe in very slowly until he/she has taken a full breath. If you hear a whistle sound, the person is breathing in too fast.
- \_\_\_\_\_ 23. Have person hold his/her breath for up to 10 seconds, then remove mouthpiece and ask person to exhale slowly. If more than 1 puff is ordered, wait 30 seconds, then repeat steps 19-23 for subsequent puffs. Be sure to wait 30 seconds between puffs!
- \_\_\_\_\_ 24. If a second inhaler (a 2<sup>nd</sup> medication given per inhaler) is ordered, wait at least 5 minutes before administering the 2<sup>nd</sup> inhaled medication and repeat steps 13-23.
- \_\_\_\_\_ 25. Replace protective cap and have person rinse mouth with water and then spit it out. Be sure person does NOT swallow rinsing water! They will get a systemic effect if they swallow the rinsing water.
- \_\_\_\_\_ 26. Leave person in a comfortable position following observation of the results.
- \_\_\_\_\_ 27. Remove and dispose of gloves properly and wash hands.
- \_\_\_\_\_ 28. Clean and store equipment.
- \_\_\_\_\_ 29. Document medication(s) given including:
  - ◀ Name of medication
  - ◀ Your initials
  - ◀ Number of inhalations given
  - ◀ Note any complaints / any action taken

Trainee name: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ Instructor initials      Instructor Name \_\_\_\_\_

**Comments:**

# Certification 1 Skills Checklist: Administering MDI Inhalers without Spacer

Follow steps 1-8 on “General Checklist for Administering Oral Medications” then

- \_\_\_\_\_ 9. Check equipment and clean if dirty.
- \_\_\_\_\_ 10. Wash hands and put on gloves.
- \_\_\_\_\_ 11. Identify person to receive the medicine and explain you are giving his/her medication for that specific hour.
- \_\_\_\_\_ 12. Assist person to a comfortable sitting position.
- \_\_\_\_\_ 13. Tell person the name of the medication and its purpose when you give the medication to him/her.
- \_\_\_\_\_ 14. Give person tissues.
- \_\_\_\_\_ 15. Insert metal canister into end of mouthpiece and remove protective cap.
- \_\_\_\_\_ 16. Invert canister and shake thoroughly.
- \_\_\_\_\_ 17. If canister is new and never used, you will need to prime it. With mouth-piece pointing into the air, away from everyone, press once on the canister base to ensure canister contains medication and is operating properly. Continue to prime the canister per manufacturer’s instructions. If canister is used daily, you do not need to prime it. If canister has not been used in the last 3 days or per manufacturer’s instructions, prime it before use.
- \_\_\_\_\_ 18. Have person exhale deeply, then place the mouthpiece directly in his/her mouth between teeth (keep tongue flat under mouthpiece) and seal lips around the mouthpiece holding canister vertically.
- \_\_\_\_\_ 19. Have person slowly inhale through the mouth while pressing firmly on the upended canister.
- \_\_\_\_\_ 20. Have person hold his/her breath for up to 10 seconds, then remove mouthpiece and ask person to exhale slowly. If more than 1 puff is ordered, wait 30 seconds, then repeat steps 18-20 for subsequent puffs. Be sure to wait 30 seconds between puffs!
- \_\_\_\_\_ 21. If a second inhaler (a 2<sup>nd</sup> medication given per inhaler) is ordered, wait at least 5 minutes before administering the 2<sup>nd</sup> inhaled medication and repeat steps 13-20.
- \_\_\_\_\_ 22. Replace protective cap and have person rinse mouth with water and spit water out. Do not let person swallow the rinse water. The person will get a systemic effect if they swallow the rinse water.
- \_\_\_\_\_ 23. Leave person in a comfortable position following observation of the results.
- \_\_\_\_\_ 24. Remove and dispose of gloves properly and wash hands.
- \_\_\_\_\_ 25. Clean and store equipment.
- \_\_\_\_\_ 26. Document medication(s) given including:
  - ◀ Name of medication                      ▶ Your initials
  - ◀ Number of inhalations given              ▶ Note any complaints / any action taken

Trainee name: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ Instructor initials      Instructor Name \_\_\_\_\_

**Comments:**

# Certification 1 Skills Checklist: Administering DPI Inhalers

Follow steps 1-8 on “General Checklist for Administering Oral Medications” then

- \_\_\_\_\_ 9. Check equipment and clean if dirty.
- \_\_\_\_\_ 10. Wash hands and put on gloves.
- \_\_\_\_\_ 11. Identify person to receive the medicine and explain you are giving his/her medication for that specific hour.
- \_\_\_\_\_ 12. Assist person to a comfortable sitting position.
- \_\_\_\_\_ 13. Tell person the name of the medication and its purpose when you give the medication to him/her.
- \_\_\_\_\_ 14. Give person tissues.
- \_\_\_\_\_ 15. Load the dry medicine in the inhaler chamber as directed by the manufacturer.
- \_\_\_\_\_ 16. Have person exhale normally away from the inhaler chamber.
- \_\_\_\_\_ 17. Have the person place the mouthpiece in their mouth with lips sealed around the mouthpiece, **forcefully inhale** through the mouth.
- \_\_\_\_\_ 18. Have person hold his/her breath for up to 10 seconds, then remove mouthpiece and ask person to exhale slowly. If more than 1 puff is ordered, wait 30 seconds, then repeat steps 15-18 for subsequent puffs. Be sure to wait 30 seconds between puffs!
- \_\_\_\_\_ 19. Close the mouthpiece and replace protective cap and have person rinse mouth with water and then spit water out. Do NOT allow person to swallow rinse water, they will get a systemic effect.
- \_\_\_\_\_ 20. Leave person in a comfortable position following observation of the results.
- \_\_\_\_\_ 21. Remove and dispose of gloves properly and wash hands.
- \_\_\_\_\_ 22. Cleanse and replace equipment as specified on the MAR.
- \_\_\_\_\_ 23. Document medication(s) given including:
  - ◀ Name of medication
  - ◀ Your initials
  - ◀ Number of inhalations given
  - ◀ Note any complaints / any action taken

Trainee name: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ Instructor initials      Instructor Name \_\_\_\_\_

<b>Comments:</b>
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# Certification 1 Skills Checklist: Administering Nebulizer Treatment

Follow steps 1-8 on “General Checklist for Administering Oral Medications” then

- \_\_\_\_\_ 9. Check equipment and clean if dirty.
- \_\_\_\_\_ 10. Wash hands and put on gloves.
- \_\_\_\_\_ 11. Identify person to receive the medicine and explain you are giving his/her medication for that specific hour.
- \_\_\_\_\_ 12. Assist person to a comfortable sitting position.
- \_\_\_\_\_ 13. Tell person the name of the medication and its purpose when you give the medication to him/her.
- \_\_\_\_\_ 14. Give person tissues.
- \_\_\_\_\_ 15. Plug in the nebulizer.
- \_\_\_\_\_ 16. Place the pre-measured dose of medication into the nebulizer’s dispensing chamber.
- \_\_\_\_\_ 17. Have the person place the mouthpiece in his/her mouth having them use their lips to form a tight seal on the mouthpiece. (If the person uses a mask instead of a mouthpiece, be sure the mask fits well.)
- \_\_\_\_\_ 18. Turn the machine on. Adjust flow of oxygen / air as ordered. Encourage the person to breathe normally during treatment with occasional deep breaths; the medication works better with deep inhalations, but avoid hyperventilation.
- \_\_\_\_\_ 19. Follow physician’s or nurse’s instructions re: taking and documenting the person’s pulse and respirations.
- \_\_\_\_\_ 20. Continue the treatment until all medication is given, usually 10-15 minutes.
- \_\_\_\_\_ 21. If needed, assist person to wipe face and apply lip balm.
- \_\_\_\_\_ 22. Remove and dispose of gloves properly and wash hands.
- \_\_\_\_\_ 23. Clean and store equipment.
- \_\_\_\_\_ 24. Document medication(s) given including:
  - ◀ Name of medication
  - ◀ Pulse and respirations at end of treatment
  - ◀ Your initials
  - ◀ Note any complaints / any action taken

Trainee name: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ Instructor initials      Instructor Name \_\_\_\_\_

**Comments:**