



**Getting the
Most from
Your Inhaled
Medications**

**FACILITATOR
GUIDE**



BETTER BREATHERS CLUB MEETING MODULE



About the American Lung Association

The American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease through research, education and advocacy. The work of the American Lung Association is focused on four strategic imperatives: to defeat lung cancer; to improve the air we breathe; to reduce the burden of lung disease on individuals and their families; and to eliminate tobacco use and tobacco-related diseases. For more information about the American Lung Association, a holder of the Better Business Bureau Wise Giving Guide Seal, or to support the work it does, call 1-800-LUNGUSA (1-800-586-4872) or visit: [Lung.org](https://www.lung.org).

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About the Program

Introduction

The mission of the American Lung Association is to save lives by improving lung health and preventing lung disease. We very much appreciate the work you do as a certified Better Breathers Club facilitator to provide a welcoming and educational support group to individuals with lung disease and their caregivers. We could not achieve our mission without your help!

The Better Breathers Club meeting module *Getting the Most from Your Inhaled Medication* is designed as a turn-key package that provides you with everything a facilitator needs to deliver a program to your members about selecting and using inhalation devices, including nebulizers. We know this a topic of perennial interest among Better Breathers Clubs and hope that you and your members will enjoy and learn from it.

Acknowledgements

The American Lung Association would like to thank the members of our Scientific and Medical Expert Review Panel, Better Breathers Club Facilitator Advisory Group and COPD Patient Advisory Group who gave their time to provide input and review of the meeting module as it was coming together.

We also want to express sincere appreciation to Mylan Specialty, L.P. and Theravance, whose generous support made the development of this educational resource possible.

Program Goal

The goal of the *Getting the Most from Your Inhaled Medication* meeting module is to raise awareness among Better Breathers Club members of the importance of device selection and correct usage of nebulizers for good management of their lung condition.

By the end of the module presentation and related discussion, Better Breathers Club members should be able to:

- Explain the importance of proper inhalation technique for effective treatment
- Identify the factors that go into selecting the right medication delivery device
- Communicate with their healthcare team about medication delivery device options
- Select, use and care for a nebulizer that works best for them



Program Components

The *Getting the Most from Your Inhaled Medication* meeting module includes the components listed below, all of which are available for download from the [Better Breathers Club](#)

[Facilitator Resource Center](#):

- Facilitator Guide, including script (this document)
- PowerPoint presentation
- Meeting Agenda
- Member Meeting Evaluation Form
- Talking to Your Doctor about Inhaled Medication handout
- ABCs of Using a Nebulizer handout (English and Spanish versions)

Delivering the program

Before your scheduled presentation of the module, you will want to review the meeting materials and decide if this is a topic you are comfortable presenting, or if you would prefer to ask a local expert from the community to serve as the presenter or co-presenter. A respiratory therapist, pharmacist or certified asthma or COPD educator would all be well qualified to be the guest speaker on inhaled medication and using a nebulizer.

Practice the presentation several times until it flows smoothly and fits into your meeting schedule. The script that is provided with this Facilitator Guide is intended for your reference. You are welcome to use it as is, or to adapt it to suit the needs of your Club members and your personal presentation style. The *Notes to presenter* that appear throughout the script will give you some ideas about ways to keep the presentation interactive and your members engaged.

Included with the module materials is an editable Meeting Agenda into which you can add your Club-specific information and distribute to members before the meeting starts.

If you have the technology available to stream video from the internet, you might want to consider replacing the ABCs of Using Your Nebulizer (slides 14, 15 and 16) with a showing of the American Lung Association videos *How to Properly Use A Nebulizer* and *How to Properly Clean A Nebulizer*. These two 2-minute videos, at [Lung.org/nebulizer](https://www.lung.org/nebulizer), are a great way to help members visualize the key steps to taking nebulized medicine safely and effectively.

There are also two educational handouts for members with this meeting module. The *ABCs of Using a Nebulizer* is a good take-home piece that reinforces the material covered in the presentation and includes a link to the Lung Association's nebulizer videos. *Talking to Your Doctor about Inhaled Medicine Delivery Devices* is intended as a worksheet and discussion guide for members to take with them to their next office visit. Spending some time after the presentation talking through this worksheet as a group and answering questions will help your members feel more prepared to have a conversation with their doctor.



Meeting Evaluation

Evaluating your Better Breathers Club meetings is as important as planning for them. Giving Club members a chance to provide feedback at the end of every meeting will help you as the facilitator determine how well the learner outcomes for the meeting were met. You will also get a good idea over time of the kinds of presentations that are most valued by your members. The *Getting the Most from Your Inhaled Medication* meeting module includes a standardized anonymous Member Meeting Evaluation Form that we strongly recommend you have your members complete and return to you at the end of the meeting.



You can help the American Lung Association develop more Better Breathers Club facilitator support resources like this meeting module! Please take a few minutes after you have delivered your presentation to complete a brief online survey at <http://bit.ly/FacilitatorSurveyInhaledMedication>. Your feedback is very important to us.

And you are always welcome to share your comments, ideas and critiques with your state contact at the American Lung Association or email us at BetterBreatherClub@Lung.org.

Thank you.



Facilitator Script

Slide 1:

Welcome



Script:

Hello, my name is [insert your name] and today we are here to talk about getting the most from your inhaled medications by properly selecting, using and caring for the delivery devices that best suit your needs and abilities. Before we get started, I'd like to ask you a couple of questions.



Note to presenter:

Start with a couple of questions for the audience about their medication delivery devices (inhalers, spacers, and nebulizers), to get them engaged and to give you a sense of how to tailor your presentation to match their interests. Some examples:

- What types of devices do they use?
- Do they have multiple inhalers that work in different ways? Does that get confusing?
- Do they use a nebulizer regularly, only for exacerbations, or never?
- Do they ever have trouble using their devices? Do they think that the devices they use have an impact on the effectiveness of their treatment?

Slide 2:

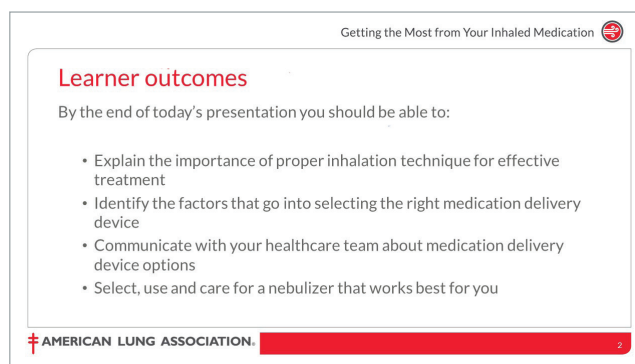
Learner Outcomes



Script:

By the end of today's presentation you should be able to:

- Explain the importance of proper inhalation technique for effective treatment
- Identify the factors that go into selecting the right medication delivery device
- Communicate with your healthcare team about medication delivery device options
- Select, use and care for a nebulizer that works best for you





Slide 3:

Why Use Inhaled Medication

Script:



Have you ever wondered why respiratory medications are usually taken in an inhaled form, instead of swallowed or injected like most other meds? Turns out, the answer is as complex and elegant as the lung itself. The structure and function of your lungs make them well-suited to distribute the medication throughout your airways, where it can be effectively absorbed.

Your lungs are one of the largest organs in your body. The interior surface area of the lungs is roughly the same size as a tennis court, and the total length of the airways running through them is 1,500 miles. That's about the distance from Chicago to Las Vegas.*

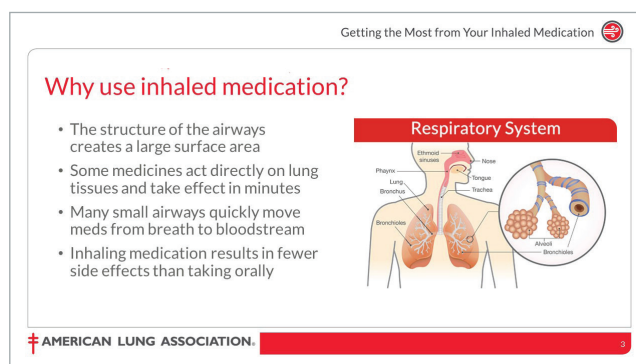
When you inhale, air moves from the throat down the windpipe and into the main bronchial tubes that lead to each lung. These tubes then branch out into smaller passages called bronchioles, which deliver the air to millions of tiny air sacs called alveoli. The alveoli is where fresh oxygen from the air is exchanged for carbon dioxide in the blood.

When you inhale a fine mist of medication, it immediately gets transported with your breath throughout your lungs. Inhaled medicines are designed to generate different size particles, including larger heavier particles that land in the upper airways, and smaller lighter particles that travel deeper into the lungs.

Depending on the type of medication, it may start working right away to reduce inflammation and relax airway muscles (quick-relief) or be absorbed into the bloodstream for more long-acting effects.

One big advantage of inhaled medication, especially corticosteroids, is that there are fewer side effects than with oral medication that has to pass through your digestive system and circulate throughout the body

*Source: American Lung Association. How your lungs get the job done. 2017. <https://www.lung.org/about-us/blog/2017/07/how-your-lungs-work.html>



Note to presenter: If your audience is engaged and feeling talkative you may want to start by asking them why they think lung disease is treated with inhaled medication. Then fill in their response with the points that don't come up from the script.



Slide 4:

The Role of Inhalation Technique in Treatment

Script:

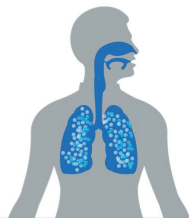


When used correctly, all devices are equally effective in delivering medication to your lungs. Unfortunately, many people do not have good inhalation technique. Researchers who have studied inhaler-use technique consistently find that over 30 percent of inhaler users with asthma and COPD use their inhalers in ways that prevent the medication from getting into their lungs as intended.

Getting the Most from Your Inhaled Medication

The role of inhalation technique in treatment

- Inhaled medications are only effective if they reach their target
- Improper use of inhalers affects drug delivery and treatment outcomes
- Over 30% of users make critical errors in use of their inhalers:
 - Coordination between actuation and inhalation
 - Improper speed or depth of breath
 - No post-inhalation breath hold
- Poor technique results in increased exacerbations, hospitalizations, ED visits and use of oral corticosteroids (prednisone)



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Among people who use standard metered-dose inhalers, the most common errors are related to poor coordination between actuating the device and inhaling, inhaling too quickly or too slowly to get the medicine deep into the lungs, and not holding their breath after inhaling the dose. The most common mistakes made by people using dry-power inhalers are incorrect preparation of the device, not taking a full breath out before inhaling the medicine and not holding their breath afterwards. [Sanchis J et al. 2016]

Of course, your medications will only work if you can get the prescribed dose into your lungs. Making errors when using an inhaler can have real consequences for your health. Experts have found that poor inhalation technique increases the risk of flare-ups, visits to the emergency department and hospitalizations. You are also more likely to be prescribed a course of prednisone to get your symptoms under control.

Note to presenter: If this slide generates a lot of concern and discussion about proper device usage, you may want to consider asking the audience to hold their questions until the end, or offering to review inhaler technique in a separate meeting.



Slide 5:

Common Challenges to Proper Technique

Script:



There are lots of reasons why inhaler users frequently make mistakes in their inhalation technique. The biggest reason is usually that they are never taught how to use their inhaler in the first place.

Getting the Most from Your Inhaled Medication

Common challenges to proper technique

- Patients are rarely trained in device usage
- Healthcare providers lack time and familiarity with devices needed to provide guidance
- Regular monitoring of technique in routine visits is rarely done
- Switching from one type of device to another can be confusing
- Lack of symptom control is thought of as a medication issue, not a device issue

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How many of you have been handed a new inhaler by your doctor or pharmacist without any explanation or demonstration of how to use it?

When a respiratory patient is prescribed a new inhaled medication, they should be shown how to use it by their healthcare provider or health educator and then be observed while they practice to make sure they are using correct technique. Every time they make an office visit, the patient should be asked by a trained provider to demonstrate how they use their inhaler, and receive counseling on improving their technique as needed.

Many doctors, especially in primary care, don't feel they have the time or the skills to teach their patients proper technique, and they may never have been taught themselves. Their training has focused on the medications, and they don't tend to think much about the devices.

Another problem for patients is being prescribed multiple inhalers that work in different ways. Switching from one technique to another can be confusing and lead to mistakes. If this happens to you, you might want to ask your doctor if there is an alternative medication that uses the same type of delivery device that you are already accustomed to.

Unfortunately, when having trouble with symptom control, both the patient and the provider are likely to assume it's the medication that's not working, and not consider whether correcting errors in inhaler technique might be an easy solution to the problem. [Hanania et al. 2018]

Note to presenter: This would be a good place to ask a couple of audience members to share their experience with some of the challenges presented on this slide.



Slide 6:

Types of Inhalation Devices

Script:



As you probably know, there are 4 main types of inhalation devices, each of which have their advantages and disadvantages:



The traditional standard inhaler, sometimes called a pressurized metered-dose inhaler, uses a mechanical system to generate an aerosol. They require a priming step before you use them each time. When actuated, the medication is shot out at high speed, often faster than the user can inhale. When that happens, the medication is deposited at the back of the throat and in upper airways, not in the lungs. Spacers or holding chambers can help resolve some technique problems, but are considered by many to inconvenient and awkward to carry with you.

Dry-powder inhalers require inhalation at maximum force to disperse powder, which can be difficult to achieve when you are having trouble breathing. Too weak an inhalation results in deposition of the medicine in upper airways instead of the lungs. The dry-powder inhalers that contain a reservoir of medication, like the discus styles, are sensitive to moisture, which causes the medication to clump, impacting drug delivery. Single dose models that are designed to avoid that problem require the user to manipulate individual capsules, which can also be a challenge. Dry-powder inhalers must not be shaken, and need to be held level after actuation so as not to spill the powder.

Soft mist inhalers like the Respimat use a propellant-free liquid formulation. Actuating the device releases a soft mist through a nozzle in mouthpiece. The medicine is delivered more slowly over longer period of time than other inhalers, which eliminates some of the coordination problems. But some people find the assembly and priming process complex and confusing.

Like all of the various inhalers, nebulizers have a combination of positive and negative attributes. We will go over those in more detail later in the presentation.



Slide 7:

Factors in Device Selection



Script:

There are several key factors that should go into a decision about the type of medication delivery device that will work best for you. It is a good idea to bring these up with your doctor whenever you are discussing making changes to your medications, especially if you have concerns about your device usage or symptom control. Some of the questions to consider:



1. Does the medicine you are being prescribed come in different forms, or is it only available for one type of device? Some medications are available in several different types of inhalers and for use in nebulizers. Others have particular characteristics that require specialized devices.
2. Does the severity of your disease affect your choices? If you are relatively healthy and lead an active life you will want a device that is easily portable and convenient to use. Maybe you have trouble using a dry-power inhaler because you can't inhale sharply enough to activate the device. If you are spending a lot of time at home, are taking several different medications and juggling a handful of different inhalers, you might prefer to use a nebulizer, particularly if you can combine your meds and deliver them in one session (Do not do this without checking with your doctor or pharmacist – not all meds are compatible.)
3. Are you living with some physical limitations that make it a challenge to use an inhaler? Arthritis, tremor and vision problems can all make it hard to manipulate an inhaler correctly, especially some of the single-dose dry-powder inhalers that require you to open packaging and load small capsules each time you use them.
4. Are you having trouble learning and remembering the instructions for using your device? Don't be shy about talking frankly with your doctor about ways to make things easier.
5. Have you asked your doctor about the cost of your prescription and whether or not it is covered by insurance? If cost is going to be a problem for you, ask if there are other options. If you are on Medicare, you may find that nebulized medicines are better covered than some types of inhalers.
6. Finally, do you have a personal preference? It's really important that you are willing and able to use the device that you are being prescribed. If you don't use it, even the best medicine in the world won't help you.

Note to presenter: There is a Talking to Your Doctor about Inhaled Medicine Delivery Devices handout with this module that includes conversation starters about these factors



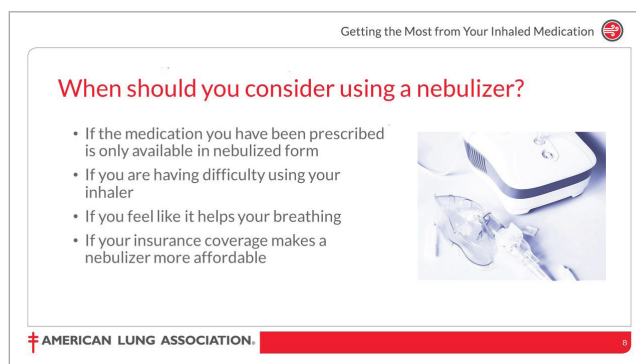
Slide 8:

When Should You Consider Using A Nebulizer?

Script:



One sure-fire way to overcome the challenges of proper inhaler technique is to use a nebulizer. Many types of inhaled medication are available for use in nebulized form. If you are having trouble using your inhalers, or you can really tell the difference in your breathing when you use a nebulizer, you might want to consider using the nebulizer as a bigger part of your treatment plan. And if the cost of inhalers is a strain on your budget, you might find that using a nebulizer is more affordable.



Note to presenter: This is a good place to ask the audience about their experience with nebulizer use. Do they have one? How old is it? How often do they use it and under what circumstances? Probe for knowledge gaps about proper usage, and about attitudes. Many patients acknowledge that they can tell the medication works better when they use a nebulizer, but their impressions of the awkwardness of the machine and the time it takes to take a treatment may be out-of-date.



Slide 9:

Advantages and Disadvantages of Using a Nebulizer



Script:

Like all medication delivery devices, nebulizers have their advantages and disadvantages. Some of the specifics vary depending on the type of nebulizer you use.

Getting the Most from Your Inhaled Medication

Advantages and disadvantages of a nebulizer

Advantages	Disadvantages
<ul style="list-style-type: none">• Requires no special breathing technique or coordination• Ability to deliver combination of medications in some cases• Drug concentrations and dose can be easily adjusted• High dosages can be delivered• Medication often less expensive	<ul style="list-style-type: none">• Treatment times range from 5 to 25 minutes• Older equipment is large and bulky• Requires a power source• Assembly and cleaning required• Contamination possible

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In general, the advantages of using a nebulizer compared to an inhaler are:

- You don't need to worry about coordinating hand action with your breath, or to remember to inhale or exhale in a special way. Once you get set up, you can just relax and breathe normally throughout the treatment.
- There is much more flexibility in the way the medication is dosed and delivered. Unlike inhalers, which are only available in certain dosages and combinations, it is often possible to combine medications and adjust dosages to suit your particular situation. And if your needs change you don't need to replace your device.

The main disadvantages of a nebulizer are about portability and convenience:

- The treatment takes time, up to 25 minutes, although the newer models are usually much faster than that.
- Unlike inhalers, which you can put in your purse or your pocket and forget about them, nebulizers are larger and require more set up and care. We will review the basic steps of assembly, use and cleaning later on in the presentation.

[Holt et al. 2017]

**Slide 10:****Types of Nebulizers and How They Work****Script:**

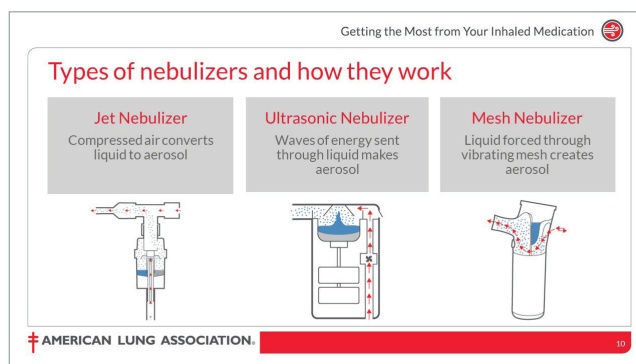
There are 3 basic types of nebulizers, called jet, ultrasonic and mesh.

Jet nebulizers are most common and least expensive. This is the only type that requires a separate air compressor. The compressed air passes over the medication in the medicine cup and creates the aerosol mist that you inhale. Older machines are large, noisy and slow. They also need to be plugged in to an outlet to work. Newer models are often battery-powered, portable and faster.

Ultrasonic and mesh nebulizers are both electronic, and do not require a compressor and tubing. They are small, quiet, battery-powered and easily portable, but more expensive and less likely to be carried by DME providers or covered by insurance.

Ultrasonic nebs generate electrical energy that vibrates the medication into an aerosol. Because the ultrasonic process generates heat, this type of nebulizer cannot be used with all types of medication. Some medicines require an ultrasonic neb, including some of the treatments for pulmonary hypertension.

Mesh nebulizers use electrical energy to move the liquid medication through a rapidly vibrating fine mesh, turning it into an aerosol. Because there is no residual reservoir of liquid, they are very efficient in delivery of medication. The mesh is delicate, and if it gets damaged in cleaning can be expensive to replace.



Note to presenter: You can use the illustrations on the slide to point out the features of each type as you talk through how they work.




Slide 11:

Obtaining a Nebulizer





Script:

If you and your healthcare provider agree that using a nebulizer would be good choice for some or all of your inhaled medication, they will write you a prescription that includes your diagnosis.

Getting the Most from Your Inhaled Medication 

Obtaining a nebulizer

- Medicare, Medicaid and most private plans cover some or all costs
- Some health plans require that you go through a DME company
- Pharmacies and online vendors also sell nebulizers, including more expensive models not available through DME
- Nebulizer masks, mouthpieces and tubing need to be replaced on a regular basis
- Performance of the compressor may diminish over time – ask your doctor about replacement if your treatment is losing its effectiveness

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You or your doctor's office will need to check with your health plan to determine what type of nebulizers are covered, and whether or not you are required to work with a Durable Medical Equipment provider, or DME. DME companies are also the ones that provide oxygen and equipment like hospital beds and electric scooters. There are usually several DME companies serving the same area, so you should probably shop around before you choose one.

Larger pharmacies often sell nebulizers, and you can also find a wide variety of types and brands online.

Keep in mind that masks, mouthpieces and tubing all wear out over time, and need to be replaced on a regular basis. A DME provider can work with your health plan to negotiate a replacement schedule that is covered by your insurance. Also, if you've had your jet nebulizer for a long time, you may want to talk to your doctor about replacing it, since the compressor does not work as well as it starts to age.



Slide 12:

Selecting a Nebulizer That Is Best for You



Script:

If you have had the same nebulizer for years and years, it would be a good idea to investigate some of the newer alternatives that are faster, quieter, more portable and more efficient. Here are some questions to ask yourself:

Getting the Most from Your Inhaled Medication

Selecting a nebulizer that is best for you

- Are you able to buy your own device or are you limited to what your DME provider has available?
- Will you only be using it at home, or do you want to take it out and about?
- Are you willing and able to coordinate breath actuation to reduce waste during exhalation?
- Does the medication you have been prescribed require a specific type of nebulizer?

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- **Are you able to buy your own device or are you limited by your insurance coverage and to what your DME provider has available?**

Although this definitely isn't an option for everyone, those who can afford it may prefer to shop around for the device they like best and pay for it out of pocket if it isn't covered by your health plan.

- **Will you only be using it at home, or do you want to be able to take it out and about?**

You will have more options if you don't need something that is easily portable. Bulkier plug-in machines are also more likely to be available from your DME provider.

- **Are you willing and able to coordinate breath actuation to reduce waste during exhalation?**

Most nebulizers produce a continual flow of aerosol, which results in some waste of medication when you aren't inhaling. There are some nebulizers on the market that are breath-actuated so that the medicine stops flowing when you are exhaling.

- **Does the medication you have been prescribed require a specific type of nebulizer?**

A handful of medications, mostly antibiotics, require the use of a specific inhaler. Ventavis and Tyvaso for pulmonary hypertension and Lonhala Magnair, an antimuscarinic for COPD are among a few examples. [Pleasant et al. 2018]



Slide 13:

Facemask or Mouthpiece?

Script: 

Nebulizers come with the choice of using either a mouthpiece, which you hold between your teeth, or a facemask, which is held over your mouth and nose by a strap around your head. Which one you use is really up to you, but there are a few points to keep in mind.

Using a mouthpiece ensures that more of the medicine gets into your airways. Since you close your lips around it, the stream of aerosol all goes into your mouth.

With a facemask some of the medicine gets blown into your face and flows out through the vents in the mask. You must breathe in through your mouth. If you inadvertently inhale through your nose, your nasal passages will filter out some of the medicine before it can get to your lower airways.

Using a face mask also increases the risk that some of the medicine will get into your eyes, where it can cause damage. Making sure the facemask is pulled tight and fits snugly reduces that possibility. People with glaucoma or other eye problems should avoid using a mask.

Getting the Most from Your Inhaled Medication 

Face mask or mouthpiece?

- A mouthpiece is more effective than a facemask in getting medicine into lungs
- If you inhale through your nose with a facemask less medicine gets to your lungs
- Using a facemask increases the risk of getting medication in your eyes
- A facemask is best for small children and for adults who can't manage a mouthpiece



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Slide 14:

ABCs of Using Your Nebulizer — Assemble

Script:



Let's review what we call the ABCs of using a nebulizer – the steps to **Assemble**, **Breathe** and **Clean** your device. Before you start to use your nebulizer, be sure to read the manufacturer instructions, as machines differ.

Always wash your hands before you start!

The nebulizer itself has 3 parts: a medicine cup, cap, and mask or mouthpiece. If you have a jet nebulizer, it also comes with a compressor and tubing. Unscrew the cap on the medication and carefully pour the correct dose into the medicine cup. Secure the cap to the medicine cup. Attach the mouthpiece or mask. Connect one end of the tubing to the compressor and the other to the medicine cup. Plug in the compressor and turn it on. A mist should start to appear out of the mouthpiece or facemask.

Note to presenter: If you have a nebulizer available, it would be helpful to demonstrate the steps as you go. Alternatively, you could replace these next 3 slides with the Lung Association's videos about using and cleaning your nebulizer, if you have the technology that allows you to do so. The videos can be found at [Lung.org/nebulizer](https://www.lung.org/nebulizer) and are also referenced on the ABCs of Using a Nebulizer handout.

Getting the Most from Your Inhaled Medication

ABCs of using your nebulizer: Assemble

- The standard jet nebulizer has 5 parts: a medicine cup, cap, mask or mouthpiece, tubing and compressor
- Wash your hands before you start!
- Assemble carefully, usually the following steps:
 - Put medication into medicine cup
 - Secure cap to medicine cup
 - Attach mouthpiece or mask
 - Connect tubing to compressor and medicine cup
- Plug in the compressor and turn it on
- Read and follow the manufacturer instructions, as machines differ

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Slide 15:

ABCs of Using Your Nebulizer — Breathe

Script:



When you have the nebulizer running and producing an aerosol, you are ready for your breathing treatment. Place the mouthpiece in your mouth and close your lips or secure the mask over your face. Sit in an upright relaxed position and breathe normally through your mouth. Hold the nebulizer in the position recommended by the manufacture. Jet nebulizers call for an upright position during use, but some electronic nebulizers have different requirements. Continue breathing normally until all the medicine is gone from the cup or you no longer see any mist.

If you have to interrupt your treatment, you can turn off the compressor, so you don't waste any medicine.

Getting the Most from Your Inhaled Medication

ABCs of using your nebulizer: Breathe

- Place the mouthpiece in your mouth and close your lips or settle the mask over your face
- Sit in an upright relaxed position and breathe normally through your mouth
- Keep the nebulizer in an upright position during use
- Continue until all the medicine is gone from the cup or you no longer see any mist
- If you have to interrupt your treatment, turn off the compressor so you don't waste any medicine

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Slide 16:

ABCs of Using Your Nebulizer — Clean

Script:



Cleaning your nebulizer every time you use it is a necessary part of your treatment. As you can imagine, the warm, moist components that come in contact with your breath are the perfect breeding ground for germs, which then have easy access to your vulnerable lungs.

After each treatment, disassemble and wash the nebulizer parts in warm soapy water or in the dishwasher. Rinse and let the pieces air dry and store in clean dry place. Once a week soak them in a vinegar solution for 30 to 60 minutes to disinfect them.

The tubing and compressor for a jet nebulizer should never be put into water. They can be wiped with a damp soapy towel or disinfectant wipe if they get soiled.

Getting the Most from Your Inhaled Medication

ABCs of using your nebulizer: Clean

- Nebulizers can harbor germs if not cleaned and stored properly!
- After each treatment, disassemble and wash nebulizer parts in warm soapy water or in the dishwasher
- Let air dry and store in clean dry place
- Once a week soak all parts in a mixture of vinegar and water for 30-60 minutes to disinfect
- The tubing and compressor can be wiped with a damp soapy towel or disinfectant wipe. They should never be put into water
- Ultrasonic and mesh nebulizers are easily damaged, so follow manufacturers instructions carefully

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Slide 17:

For More Information



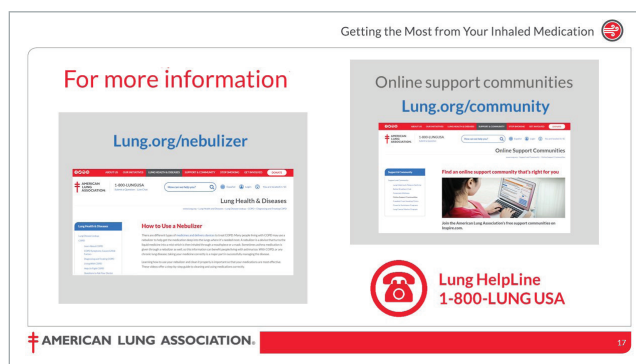
Script:

A lot more information and support for managing your illness and treatment is available from the American Lung Association.

Details about inhalation devices, including nebulizers is available on the website [Lung.org/Nebulizer](https://www.lung.org/nebulizer).

You can also get your questions answered and discuss your treatment options with a nurse of respiratory therapist by making a toll-free call to the Lung HelpLine (1-800-LUNGUSA)

And you can log into the Inspire online support community to connect with others who share your diagnosis, understand your situation and can share what they have learned about living with lung disease. Learn more at [Lung.org/community](https://www.lung.org/community).





Slide 18: Key Points to Remember




Script:
I know we have covered a lot of information today and had some good conversation. Before I open it up to questions, I want to recap some of the main points:

Getting the Most from Your Inhaled Medication

Key points to remember

- Proper inhalation technique is critical for medication effectiveness
- When used correctly, different types of devices are equally effective in delivering medication to the lungs
- Inhalers and nebulizers both have advantages and disadvantages, including effectiveness, cost and convenience
- Talk to your doctor about devices when discussing treatment options
- Ask for training on use of each new device, and regular follow-up assessments by your healthcare provider or health educator
- If you have trouble with symptom control, it might be your technique





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- Remember, good inhalation technique really makes a difference in the effectiveness of your treatment. But many people make mistakes that can impact their health.
- Inhalers and nebulizers all have their advantages and disadvantages, but if they are used as intended, they are equally effective.
- Device selection should be part of the conversation with your provider about treatment options. You should talk about your lifestyle, your physical abilities and your preferences.
- Don't leave the doctor's office with a new prescription for inhaled medicine without having someone show you how to use the device. You should also ask to demonstrate your technique to your doctor, nurse or health educator at every visit.
- If you are having trouble with symptom control, don't forget that it might not be the medicine – it might be a problem with your inhalation technique.

Slide 19: Any Questions?

Getting the Most from Your Inhaled Medication



Any questions? / Follow Up

[Contact Info:
Name
Phone Number
Email]

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Note to presenter: If you are a guest speaker, you may want to put your name and contact information here for follow-up if that is available.



References

There are many excellent resources available to facilitators interested in learning more about inhalation technique, device selection and use and care of nebulizers. The following references are a few of those that were most helpful in the development of the *Getting the Most from Your Inhaled Medication* Better Breathers Club meeting module.

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Holt TO, Wiles K, Becker E. A Patient's Guide to Aerosol Medication Delivery. American Association of Respiratory Care. 2017. Accessed at <https://www.aarc.org/wp-content/uploads/2018/01/aerosol-guides-for-patients-3rd.pdf>.

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Sanchis J, Gich I, Pedersen S. Systematic review of errors in inhaler use: has patient technique improved over time? *CHEST*. 2016;150(2):394-406.

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Next Step Presentation Ideas

Here are a few ideas for meeting topics if you would like to build on questions and discussion generated by the *Getting the Most from Your Inhaled Medication* meeting module. These topics are suggestions only and can easily be combined or changed to suit your needs. We always recommend that you survey Club members for their interest on different topics and plan sessions accordingly.

1. Using and Caring for Your Inhalers

- Ask members to bring in all their inhalers.
- Work together as a group to review what each inhaler is for (quick relief or control).
- Demonstrate how each device is used or show device videos from American Lung Association and COPD Foundation.
- If time permits, ask members to show you their inhalation technique (also consider a separate time for one-one-one coaching, or referring members to the Lung HelpLine for a video chat).
- Review how to clean, care for and store different types of inhalers.

2. Ask the Pharmacist

- a. Invite a local pharmacist for an unstructured “ask the expert” session.
- b. Be sure to prepare members in advance that this is not a time to get personal treatment advice.
- c. Ask the speaker to include some discussion of managing comorbidities, tips for juggling complicated treatment plans, common drug interactions and side effects.

3. Breathing Exercises for Managing Shortness of Breath and Stress

- Discuss shortness of breath – what is it, and strategies for management from the Lung.org website.
- Include links to the American Lung Association’s pursed lip breathing and belly breathing videos.
- Talk about other types of relaxation exercises and provide information on resources that members can use at home.
- Have members demonstrate and practice exercises and talk about how and when it would be good to use each one.