

Figure 7.1. Handout for Shortness of Breath Cycle for COPD and Asthma

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### Shortness of Breath Cycle for COPD and Asthma

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Many people with COPD or asthma experience a shortness of breath cycle. In this cycle, shortness of breath from COPD or asthma leads to worry and panic, which in turn worsens shortness of breath. Here are the steps that often occur: Shortness of breath leads to...

- Worry (e.g., about breathing, passing out, dying), leading to ...
- Anxiety or panic physical reaction, leading to ...
- Increased breathing rate, leading to ...
- Less effective (i.e., rapid, shallow) breathing, leading to...
- Increased oxygen use by, and less oxygen available for muscles, leading to...
- More shortness of breath...
- And the cycle continues.

You can stop the shortness of breath cycle by following these steps:

1. When you first notice shortness of breath, STOP your activity.
2. Rest. Sit down or lie down, if possible.
3. Relax. Use diaphragmatic breathing or pursed-lip breathing techniques.
4. Reassure yourself. Tell yourself reassuring thoughts about your symptoms.
5. If possible, measure and record your peak flow and follow your action plan.
6. Take medications, if appropriate, following your PCP's recommendations.
7. After your breathing improves, gradually resume activity, in a paced manner.

Figure 7.2. COPD Assessment Questions

### Sample Assessment Questions for COPD

#### Breathing Symptoms and Peak Flow

- How often do you have trouble breathing, or feel you can't get enough air?
- What kinds of activities lead to feeling out of breath?
- What affects your breathing the most (e.g., physical activity, stress, emotions)?
- What is your average peak flow? What is your best and worst peak flow?

#### Medications

- What medications do you take for COPD? When do you take them?
- Do you use oxygen at home for COPD?
- What side effects do you notice (e.g., tremor, anxiety, nausea, headache, shortness of breath)?
- Do you sometimes forget to take your medications, or choose not to take them?
- Have you ever had treatment or medication for anxiety or depression?

#### Work, Social, and Family Functioning

- How has COPD changed what you do at work?
- Are you having trouble getting things done around the house? How so?
- What has changed, if anything, about what you do for fun? With friends?
- Describe what you do in a typical day.
- How has your family responded to your COPD? How has COPD changed your relationships?

#### Emotional and Cognitive Factors

- What changes have you seen in your mood as your COPD has gotten worse?

- How has your mood been lately? Have you been feeling more down or sad?
- How often do you feel worried or stressed?
- What goes through your mind when you have trouble catching your breath?
- What do you do when you feel you are having trouble getting enough air?

#### Health-Related Behaviors

- Do you smoke? What are your thoughts about quitting?
- What forms of exercise or physical activity are you getting?
- To your knowledge, are you exposed to indoor air pollutants, at work or home?

#### Interventions to Date

- Do you practice any form of relaxation (e.g., imagery, pursed-lip breathing, diaphragmatic breathing)?
- Have you ever participated in a pulmonary rehabilitation program?

### Figure 7.3. Handout for Pursed-Lip Breathing

#### Pursed-Lip Breathing for Asthma and Chronic Obstructive Pulmonary Disorder (COPD)

Pursed-lip breathing is one of the simplest ways to control shortness of breath in COPD and asthma. It provides a quick and easy way to slow your pace of breathing, making each breath more effective. Please note that this breathing technique should not replace the use of medications prescribed by your primary care provider for asthma or COPD, but should be used in conjunction with them.

#### What Does Pursed-Lip Breathing Do?

- Improves ventilation and releases trapped air in the lungs, decreasing the feeling of breathlessness
- Helps keep the airways open for a longer time and prolongs exhalation to slow the breathing rate
- Helps improve breathing patterns by moving old air out of the lungs and allowing new air to enter the lungs
- Causes general relaxation and allows you to better control your symptoms

#### When Should I Use This Technique?

- During the difficult part of any activity like bending, lifting, or climbing stairs
- When you are finding yourself anxious or breathless
- Practice four to five times a day at first so you can get the correct breathing pattern

#### How Do I Use This Technique?

- Relax your neck and shoulder muscles and breathe in (inhale) slowly through your nose for two counts, keeping your mouth closed. Don't take a deep breath; a normal breath will do. It may help to count to yourself, "Inhale, one, two"

- Pucker or purse your lips as if you were going to whistle or gently flicker the flame of a candle
- Breathe out (exhale) slowly and gently through your pursed lips while counting to four. It may help to count to yourself, "Exhale, one, two, three, four"

Figure 7.4. Resources for Patients with COPD: Websites, Mobile Applications, and Books

Type	Location	Descriptions
<b>Websites</b>	<b>National Heart, Lung, and Blood Institute (NHLBI)</b> <a href="http://www.nhlbi.nih.gov/health/resources/lung/index.htm#copd">www.nhlbi.nih.gov/health/resources/lung/index.htm#copd</a>	This website gives detailed information on COPD, including risk factors, overview of disease and treatments, breathing techniques, and strategies for better managing COPD. It contains fact sheets in English and Spanish.
	<b>American Lung Association</b> <a href="http://www.lung.org">www.lung.org</a>	This website offers information on a number of lung diseases, including COPD. It contains disease information, management tools to assist in coping with COPD, and tobacco cessation information. The website has links to an online support community for COPD patients, and has information and links to the American Lung Association's LungHelpline (1-800-LUNGUSA).
	<b>Global Initiative for Chronic Obstructive Lung Disease (GOLD)</b> <a href="http://www.goldcopd.org">www.goldcopd.org</a>	This site offers medical information on COPD, a questionnaire for individuals to assess their risk for COPD, and a COPD informational guide for patients and their families.

	<b>National Lung Health Education Program (NLHEP)</b> <a href="http://www.nlhep.org">www.nlhep.org</a>	<p>This site offers patient information on COPD diagnosis and treatment. It contains information on the anatomy of normal and obstructed airways. It also includes tobacco cessation resources and information on spirometry testing.</p>
<b>Mobile Application</b>	<b>COPD Patient Companion</b> <a href="https://itunes.apple.com/us/app/chronic-obstructive-pulmonary/id875482616?mt=8">https://itunes.apple.com/us/app/chronic-obstructive-pulmonary/id875482616?mt=8</a>	<p>Allows patients to track symptoms, treatments, lab results, medications, and side effects. Includes a “journal” section for daily rating of mood, symptoms, treatment adherence, and physical activity. Provides visual charts of treatment adherence, mood, symptom exacerbations, side effects, and days with/without symptoms, among others.</p> <p>Projects in Knowledge, Inc.: COPD Patient Companion. 2014, 2.19.4 edition.</p>
<b>Books</b>	<b>Chronic Obstructive Pulmonary Disease (COPD): The Facts</b> Currie, 2009	<p>This patient education book provides information on COPD, approaches to managing COPD, and information on smoking cessation strategies. It includes examples of patient experiences.</p>
	<b>COPD for Dummies</b> Felner & Schneider, 2008	<p>This patient education book provides an overview of COPD risk factors, diagnosis, and treatment. Includes sections on diet, smoking cessation, exercise,</p>

		and medication use.
	<b>Positive Options for Living with COPD: Self-Help and Treatment for Chronic Obstructive Pulmonary Disease</b>  Allen, 2010	This book provides patients with an overview of COPD, information about diagnosis and treatment, overview of medications, strategies for managing emotions, development of a “flare up” action plan, and guidance on breathing strategies (including pursed lip breathing and diaphragmatic breathing, among others).



Figure 7.5. Handout for Asthma Assessment Questions

### Sample Assessment Questions for Asthma

#### Breathing Symptoms and Peak Flow

- How often do you notice symptoms of worsening asthma?
- What affects your breathing the most (e.g., physical activity, stress, allergens)?
- Do you monitor your peak flow at home? How often?
- What is your average peak flow? What is your best and worst peak flow?
- Has your peak flow dropped below (80% of personal best) since your last medical visit?

What did you do?

#### Medications

- What medications do you take for asthma? When and how often do you take them?
- How long does it take you to go through a rescue inhaler?
- What side effects do you notice when you take your medication (e.g., tremor, anxiety, nausea, headache)? Have you stopped taking any regular doses for any reason?

#### Medical System Use

- When was your last hospitalization for asthma? How many have you had?
- How many visits have you had to the emergency room for asthma in the past year?
- What is your best estimate of how many primary care visits you have made in the past year? (Note: Consider obtaining this through review of medical record, if available)

#### Work, Social, and Family Functioning

- How has asthma changed what you do at work?
- Are you having trouble getting things done around the house due to breathing problems?
- What has changed, if anything, about what you do for fun? With friends?

- Describe what you do in a typical day.
- How many days of work/school have you missed due to asthma in the last year?
- How has your family responded to your asthma? How has asthma changed your relationships?
- What would you like to do that you can't do now, or as well, because of your asthma?

#### Emotional and Cognitive Factors

- Describe how your mood has been lately.
- How often do you feel anxious or panicky? When does this occur?
- What goes through your mind when you have an asthma attack?
- What do you do when you feel you have having trouble breathing?

#### Health-Related Behaviors

- Do you smoke? What are your thoughts about quitting?
- What forms of exercise are you getting? Are your symptoms worsened by exercise? Has your PCP advised you to use your inhaler or take other steps prior to exercising?
- What triggers have you identified (e.g., animals, mold, pollens, pollution, cold air, foods)? Which ones do you have most trouble avoiding?

#### Interventions to Date

- Are you monitoring your peak flow? How often?
- Do you have a written asthma action plan? Please describe it to me. When do you use the action plan?
- What kinds of problems do you have with following the plan?

Do you practice any form of relaxation (e.g., visualization, imagery, diaphragmatic breathing)?



Figure 7.7. Handout for Asthma Allergen/Exposure Checklist

### Factors That May Worsen Asthma

Some people with asthma find that their symptoms are worsened or “triggered” by identifiable factors or situations. Sometimes these are allergies; other times simply sensitivity or reactions to environmental factors. Please review the following list of factors that may worsen asthma, and check the items that you believe might affect your symptoms. If you are unsure about a given item, place a question mark on the line.

- \_\_\_\_\_ Pets or other animals
- \_\_\_\_\_ Pollens
- \_\_\_\_\_ Mold
- \_\_\_\_\_ Dust mites
- \_\_\_\_\_ Dust
- \_\_\_\_\_ Cockroaches
- \_\_\_\_\_ Airborne chemicals
- \_\_\_\_\_ Sulfites in food or beverages
- \_\_\_\_\_ Tobacco smoke
- \_\_\_\_\_ Outdoor air pollution
- \_\_\_\_\_ Wood fire smoke
- \_\_\_\_\_ Physical exercise
- \_\_\_\_\_ Cold air

Figure 7.8. Resources for Patients with Asthma: Websites, Mobile Applications, and Books

Type	Location	Description
<b>Websites</b>	<b>National Heart, Lung and Blood Institute (NHLBI)</b>  <a href="http://www.nhlbi.nih.gov/health/public/lung/index.htm#asthma">www.nhlbi.nih.gov/health/public/lung/index.htm#asthma</a>	This website offers patient information on asthma, including specific symptoms and diagnosis, medications, treatment options, and self-management materials. It also includes an asthma action plan and asthma wallet card to assist patients in tracking information such as medications, peak flow, and their doctor's contact information. Patient education materials are available in English and Spanish.
	<b>American Lung Association</b>  <a href="http://www.lung.org/lung-disease/asthma/">www.lung.org/lung-disease/asthma/</a>	This website offers patient guidance on managing the disease and living a healthy life, including information on understanding asthma medications, creating an asthma management plan, monitoring asthma control, and reducing exposure to asthma triggers.
	<b>United States Environmental Protection Agency</b>  <a href="http://www.epa.gov/asthma/">www.epa.gov/asthma/</a>	This website aids patients in noticing asthma triggers while gaining control and reducing exposure to those triggers. It also contains basic asthma information and information on how to improve asthma health in the communities and schools.
	<b>Centers for Disease Control and Prevention</b>	This website offers tools for asthma control such as asthma action plans and information on the CDC's National Asthma Control Program. Patient education

	<a href="http://www.cdc.gov/asthma/">www.cdc.gov/asthma/</a>	materials cover information on symptoms and management, use of inhalers, and avoidance of triggers. Materials are available in multiple languages.
<b>Mobile Applications</b>	<b>Asthma Consultant</b> <a href="https://appworld.blackberry.com/webstore/content/1607/?countrycode=US&amp;lang=en">https://appworld.blackberry.com/webstore/content/1607/?countrycode=US&amp;lang=en</a>	Informational app providing comprehensive information about asthma, consistent with established guidelines. Does not provide self-management tools.  Incelligence Inc: National Institutes of Health Asthma Consultant. 2009, 1.0.5 edition.
	<b>Truth about Asthma</b> <a href="http://appcrawlr.com/android/truth-about-asthma">http://appcrawlr.com/android/truth-about-asthma</a>	Informational app providing comprehensive information about asthma, consistent with established guidelines. Does not provide self-management tools.  KoolAppz: Truth About Asthma. 2011, 1.0 edition.
	<b>Asthma</b> <a href="https://www.iapps4you.com/iphone_ipad_apps/97080_asthma.html#.VjNsfrczZGE">https://www.iapps4you.com/iphone_ipad_apps/97080_asthma.html#.VjNsfrczZGE</a>	Informational app providing comprehensive information about asthma, consistent with established guidelines. Does not provide self-management tools.  India N. I.C. Infocom Limited: Asthma. 2010, 1.4 edition.

<b>Books</b>	<b>The Asthma Sourcebook (3<sup>rd</sup> edition)</b> Adams, 2007	This patient education book provides information on asthma symptoms, lab testing, and diagnosis; self-monitoring of peak flow and use of asthma management plans; reducing exposure to triggers; and sections on special issues such as pregnancy, occupational asthma, and exercise.
	<b>Asthma for Dummies (Pocket Edition)</b> Berger, 2010	This brief patient education book provides an overview of asthma symptoms and diagnosis, and key aspects of asthma management, including self-monitoring, appropriately using medications, and avoiding allergens and other asthma triggers.

## Asthma “Advise” Phase Script—Chapter 7

I'm concerned by a few things I heard you mention this morning. One is that you feel your asthma is getting worse. You've had more exacerbations and have been to the emergency room twice in the last two months. I'm also concerned that you feel you're not able to manage your asthma at home. You say that you have a peak flow meter at home, and your PCP has asked you to check your peak flow each morning before you take your medication. However, you're having difficulty remembering to do this. It also sounds like you're not quite sure how to adjust your medications at home when you do get a peak flow reading that seems low to you, or when you notice your asthma symptoms worsening.

We know that it takes a partnership between medical providers and patients with asthma, with active participation from both sides, to effectively manage asthma. You're doing a great job remembering to take your long-term control medications. However, some of the other aspects of your care, such as monitoring your peak flow, have been difficult. In addition, you don't have a written home action plan that would help you make decisions about what to do when your lung function gets worse.

I have a couple of recommendations. The first is that we set up an appointment for you with your primary care provider to develop a written home action plan, which is the form she uses with most of her patients with asthma [show blank action plan]. If possible, I will attend that appointment as well. Your primary care provider will likely look at what your peak flow readings have been and use that information to set guidelines about when to take certain steps, such as taking additional medication or seeking medical care.

My second recommendation is that you and I work together to help you stay consistent with your daily peak flow monitoring, because your primary care provider really thinks it is



important in getting your asthma under control. We can develop some ways to help you remember to do the monitoring each morning and tackle any other barriers that might be getting in the way. What do you think about these options?

## Asthma “Agree” Phase Script—Chapter 7

Your primary care provider really wants you to monitor your peak flow every day. She and I both believe this is critical in helping keep you out of the emergency room, but it sounds like you really don't want to focus on this right now. You say you've done it before for a few weeks and didn't find it helpful and that you find it hard to remember to do it. What you're really concerned about is how your asthma has gotten in the way of being active, such as riding bikes or playing tag with your kids. You'd like to be able to do these things you enjoy more often.

In many ways, the two issues are linked. Regular monitoring of your peak flow can help you take your medications in a way that will minimize your asthma symptoms. This, in turn, will allow you to be more active. However, we certainly can begin by working on other strategies that may help improve your ability to be physically active with your kids, even if you're not ready right now to go back to the daily peak flow monitoring. Then later, when you're ready, we can shift our focus back to the peak flow monitoring, perhaps coming up with some ideas on how to make it easier for you. How does that sound to you?

## COPD “Advise” Phase Script—Chapter 7

It's great that you have already quit smoking. Congratulations! Staying tobacco-free is the number one thing you can do to help manage your COPD. On the basis of the other information you shared with me this morning, I think there are several more areas we could focus on that would help you feel and function better. One area is your physical activity. As you've had more trouble with your breathing symptoms, you've cut back on your physical activity. That makes sense in the short term because it doesn't feel good to be short of breath. Unfortunately, in the long term, the inactivity leads your body to become more deconditioned and out of shape. This makes it even harder in the future to do activities you'd like to do, and worsens your breathing problems. If you'd like, we could work with your medical providers to help you develop and stick with a plan for gradually increasing your physical activity levels. A second area that really stood out in our discussion was your description of what happens when you notice your breathing symptoms worsening. You become worried that you won't be able to breathe and that you may pass out. This anxious thinking then worsens your breathing in a vicious cycle. I could teach you some breathing strategies to help control your breathing and promote relaxation. Are you interested in focusing on either or both of those options?