YELLOW RIBBON REINTEGRATION PROGRAM®

Just Breathe

Facilitator Guide

FOR THOSE WHO SERVE AND THOSE WHO SUPPORT

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Just Breathe

Facilitator Note:

The following two symbols are used as indicators:
💻 *(computer) indicates it is time to advance the slide on the associated PowerPoint;*
✋ *(hand) indicates there is an exercise associated with the content.*

Essential class content is noted in ***bold****.*

All class handouts are available for download on the YRRP website at www.yellowribbon.mil/cms/event-handout. Unless otherwise specified as online only in the Materials section below, all handouts should be printed for distribution to class participants.

Class Description:

This class presents breathing exercises as a tool to help manage stress. Participants will learn about the evidence-based benefits of using breathing exercises to support mental, physical, and overall well-being. Participants will also have opportunities to practice a few breathing techniques and leave with tips and resources to continue using the learned techniques at home.

Stage:

Pre-deployment, During deployment, Post-deployment

DoDI:

1342.28 DoD Yellow Ribbon Reintegration Program (YRRP)

The content of this class has been developed for the Department of Defense Yellow Ribbon Reintegration Program. The Clearinghouse for Military Family Readiness at Penn State has reviewed the class and is responsible for content management.

Audience:

YRRP attendees

Time:

45 minutes

Equipment:

- Projector

- Laptop

Materials:

- Facilitator Guide
- Core Material Checklist
- PowerPoint Presentation
  1. Just Breathe
  2. Objectives
  3. The Sympathetic Nervous System
  4. The Parasympathetic Nervous System
  5. Common Inefficient Breathing Patterns
  6. The Basics of Efficient Breathing
  7. Benefits of Breath Exercises: Body
  8. Diaphragmatic Breathing
  9. Benefits of Breath Exercises: Well-Being
  10. Three-Part Diaphragmatic Breathing
  11. Alternate Nostril Breathing
  12. Review of Key Points
  13. Review of Objectives
  14. Just Breathe
- Handouts
  1. Breathing Exercises (online only)

Exercises:

1. Diaphragmatic Breathing
2. Three-Part Diaphragmatic Breathing
3. Alternate Nostril Breathing

Objectives:

After completing this class, participants will be able to do the following:

1. Identify common, inefficient breathing patterns.
2. Identify evidence-based benefits of a variety of breathing techniques, including effects on mental and physical well-being.
3. Use simple breathing techniques in their own life to manage stress.

Introduction

SHOW Slide 1: Just Breathe

Facilitator Note:

Introduce yourself as the facilitator. State your name, military experience or affiliation, and perhaps one additional brief bit of relevant personal information that establishes your credibility (i.e., your professional training or experience).

Please limit your personal introduction to no more than 2 minutes to maximize the time attendees are able to engage with course content, practice skills, and participate in self-reflection activities.

Did you know that the average person takes 12-16 breaths each minute (Fieselmann et al., 1993; Johns Hopkins Medicine, n.d.)? And most of the time, we do not even recognize we are doing it or think about it. Should we?

There are many different tools we can use to help deal with stress, but, today, we are going to learn about one tool: breathing.

In this session, we will explore using our breath as a tool to help manage stress and learn about the evidence-based benefits of breathing exercises for our mental and physical well-being. We will have an opportunity to practice some brief breathing techniques together, and you will leave with tips and resources to continue practicing on your own in your everyday life. Ready?

SHOW Slide 2: Objectives

Let's go over our objectives. After completing this class, you will be able to do the following:

1. **Identify common, inefficient breathing patterns.**
2. **Identify evidence-based benefits of a variety of breathing techniques, including effects on mental and physical well-being.**
3. **Use simple breathing techniques in your own life to manage stress.**

Let's first explore how our breath is affected during periods of both stress and relaxation.

Take a moment to consider your pattern of breathing when you are under stress. What happens to your breath when you feel stressed?

PAUSE for responses. (Possible answers: shallow breathing; faster breaths; shorter breaths)

OK, now take a moment to consider your pattern of breathing when you feel at ease, relaxed, and able to let go. Is it different? How so?

PAUSE for responses. (Possible answers: breathing feels slower; deeper breaths are easier to take; chest feels more open; relaxed)

Understanding Breath Patterns Under Stress and Relaxation

SHOW Slide 3: The Sympathetic Nervous System

Let's take a look at what happens to our breathing when the body experiences stress. When we experience a stressful event, a part of the brain, called the amygdala, activates a series of reactions in our body, which includes the activation of the sympathetic nervous system. **The sympathetic nervous system promotes our fight, flight, or freeze response and signals our heart and lungs to work harder. The breath becomes more rapid, and the small airways in the lungs open wider to take in more oxygen, which increases alertness** (Harvard Medical School, 2011).

Noticing changes in our breathing pattern may help us recognize more quickly when we are experiencing stressful thoughts.

SHOW Slide 4: The Parasympathetic Nervous System

Let's take a look at how breathing occurs when the body is in a state of ease or relaxation. **After our stressful event is over, the parasympathetic nervous system activates to help the body systems return to equilibrium - or normal functioning. The parasympathetic nervous system promotes our rest and digest or rest and repair response.** It acts as a brake to the accelerator of the sympathetic nervous system (Harvard Medical School, 2011).

When the parasympathetic nervous system is activated, breathing is characterized by slow, relaxed in and out breaths, and breathing shifts from the chest to the abdomen (Courtney, 2009; Recordati & Bellini, 2004).

Basic Anatomy of Efficient Breathing

SHOW Slide 5: Common Inefficient Breathing Patterns

Facilitator Note:

For each pattern, invite participants to stand up to explore the posture/breath. This is done so that participants can more easily identify what and where they feel the sensation related to breath; however, it can easily be modified without asking participants to stand. Use your judgment to create an inclusive environment for all. If one or more participants is unable to stand or stand unassisted, facilitate the learning with the group seated.

It might sound strange to hear that when we breathe, we may not be doing it right! Of course, the fact that we are here in this session means that however we are breathing it is working. However, often we may not be aware of the patterns in which we breathe. Some breath patterns are in response to feeling stress and may not help the nervous system return to a state of relaxation or what medical professionals refer to as parasympathetic dominance (Afonso et al., 2012; Asmundson & Stein, 1994; Brown et al., 2013; Gavish, 2010; Gerbarg et al., 2011).

Before we explore some common breathing patterns, I want to remind you that **we are not diagnosing breathing pattern disorders**; we are reflecting on some patterns of breathing that do not help us return to a state of relaxation. **If you feel that you have a breathing pattern disorder or have health concerns about your breathing, I encourage you to seek help from a physician.**

Now, let's see if you recognize any of these common patterns of breathing that do not help us relax in your own patterns of breathing. We are going to explore each of these breath patterns while standing; however, if you do not feel comfortable standing or it is difficult for you, I invite you to stay seated.

Reverse breathing is a very common pattern! Try this: **stand up** for a moment, **relax your body**, and just **stand normally.** Now, **take a full, deep breath in,** as full as you can, and **hold it when your lungs feel full.** Notice **as you hold the breath, is your abdomen drawn in or has it expanded?** OK, everyone **exhale, let the breath go…**Nice!

How many of you noticed that your abdomen/navel was drawn in when you took your full inhale?

PAUSE for a show of hands.

OK, some of you did, and others did not. If you did, you demonstrated the Reverse Breathing pattern (Brown et al., 2013; Farhi, 1996; Philippot et al., 2002). We will describe why it is reverse in a few moments when we explore the basics of efficient breath anatomy. We'll also explore some exercises that can help us undo that pattern.

Who has heard the term **Tech Neck**?

PAUSE for a show of hands.

Well, **this term is used to describe the posture and accompanying discomfort that happens when the head is carried forward and is tilted slightly downward.** You know, from looking at our screens for hours on end!

Not only can this create neck pain and headaches (Hansraj, 2014; Hruska, 1997), **but it also leads to difficulty in breathing efficiently** (Courtney, 2009; Kapreli et al., 2009). **Our shoulder posture is also involved.** Let's explore this for a moment.

DEMONSTRATE this for the group and exaggerate your posture to help get the point across.

Try this: **stand up** for a moment, **relax your body,** and **stand normally.** Now, **imagine that you are at a keyboard or perhaps even pull out your phone if you have it handy and, pretend to check it. Notice your posture, the position of your head, notice your shoulders.** What is happening?

EXAGGERATE yourself to demonstrate, rounded shoulders, slumped torso, and head dropped somewhat down.

Now, take in a full deep inhale. What do you notice about it? Is it easy to get a full breath?

PAUSE for responses.

Now, put your phone away, if you have it out, and take a moment to **stand up tall, bring up the chin level, and feel the base of your skull gently draw back an inch or two…just feeling as though the head is squarely on the rest of the spine - not too forward or back. Notice your shoulders…roll them down away from your ears and down the back. The chest is open, and the spine is long but not rigid.** Now, **take another full inhale and hold it. Notice what you feel that may be different from the breath you took a moment ago. Release the breath with an exhale.** What did you observe?

PAUSE for responses. Invite the group to sit again.

This pattern is what it sounds like: you breathe high into your chest. Usually, this

is the reaction we have when we are startled – the abdomen is engaged, and the upper body may also be braced or engaged for action (CliftonSmith & Rowley, 2011; Farhi, 1996; Wolfson et al., 1983). **Interestingly, this pattern of breathing has been found by at least one research study to occur when we use our computer keyboard** (Peper & Tibbetts, 1994; Peper et al., 2003).

Let's explore this one together. **Stand up again for a moment, relax your body, and stand normally. Place your right hand on your abdomen and place your left hand on your chest below the collarbone and on the sternum. Allow your next inhale to be a bit deeper than normal but do not try to change it other than that.**

As you breathe, observe any of the following:

- **Which hand moves more?**
- **Do you hold in your abdomen when you inhale?**
- **Notice your shoulders – do they move up when you inhale?**
- **Do the shoulders feel that they are tensing on the inhale?**

Relax your breath now and feel free to take your seat again. What did you observe?

PAUSE to allow some feedback from the group using prompts from the observation questions above.

SHOW Slide 6: The Basics of Efficient Breathing

So what is happening inside the body when our breathing is occurring in a way that helps us relax? The answer is long, complex, and beyond the scope of this session because there are many physiological processes involved that support efficient breathing. However, **we can think about how we are breathing by noticing two important elements:**

1. **Posture**
2. **Movement of the diaphragm**

Let's begin with posture. As we experienced when we explored breath patterns, **when our shoulders are rounded, the head is forward, and, if the abdomen is either held in and tightened or collapsed, our breath is affected. Being aware of our posture and making adjustments to it when we notice we are holding an inefficient breathing posture can help us to re-pattern our breath** (CliftonSmith & Rowley, 2011; Farhi, 1996; Kapreli et al., 2009; Wolfson et al., 1983).

To review, allowing the spine to be upright, relaxing the shoulders, allowing the abdomen to be soft and relaxed, and holding the head neither too far forward nor back are all involved in the health of our breathing (Courtney, 2009; Farhi, 1996).

The second element to pay attention to is the diaphragm. The diaphragm is a muscle

shaped like a dome and positioned underneath the lungs and ribcage. The heart lies on top in the center and is attached by fascia, which is tissue that supports structure in the body. **When we inhale, the diaphragm moves downward to create space for the lungs to expand and gives a massage to the heart.** Remember when we noticed that some of us reverse breathe? **The reverse action refers to the movement of the diaphragm on inhalation and exhalation. In reverse breathing, when we inhale, we pull the abdomen in, which causes the diaphragm to move upward rather than down** (Brown et al., 2013; Courtney, 2009; Peper & Tibbetts, 1994; Philippot et al., 2002).

Benefits of Breathing Exercises on Mind and Body

SHOW Slide 7: Benefits of Breath Exercises: Body

Most of the time when we breathe we do not notice it, but, when we are intentional and controlled about the breath through the use of breathing exercises, we can receive several benefits to our physical well-being. **Some of the benefits found from breathing exercises include the following**:

- **Decreased heart rate and lower blood pressure** (Kaushik et al., 2006; Singh et al., 2004).
- **An ability to help the body return to a resting state after stressful events** (Asmundson & Stein, 1994; Courtney, 2009).
- **A fostered sense of calm and relaxation** (Brown et al., 2013; Brown & Gerbarg, 2005; Jerath et al., 2015; Seppälä et al., 2014).

Can you think of other ways in which breathing exercises may help our physical state?

PAUSE for responses. (Possible answers: managing or reducing pain; better sleep)

Let's try a brief breathing exercise to see what we experience ourselves!

SHOW Slide 8: Diaphragmatic Breathing

EXERCISE 1: Diaphragmatic Breathing

Facilitator Note:

The purpose of this exercise is for participants to practice diaphragmatic breathing. Demonstrate this exercise with the group and position yourself so the participants have a good visual of how the exercise is completed. This should take approximately 5 minutes.

This is an exercise that can be done anywhere at any time. It is helpful to wear clothing that will not feel constrictive in the waist when doing this exercise. We will practice it seated, but it can also be completed lying down on your back, lying on your front (this makes it a bit more challenging, but some find that it helps them connect better with the sensation of breathing with the diaphragm moving properly), or standing.

Sit tall with your spine straight but not rigid. Feel the base of your skull reaching upward and roll your shoulders down and back. Allow your head to rest squarely and not too far forward or back. Place your hands on your abdomen just below your navel. Make small adjustments as needed to find efficient posture.

DEMONSTRATE the instructions below first and then guide the group.

Now, **slowly, counting to 3** (count out loud one…two…three…), **begin inhaling through the nose; feel the nostrils open, not pulling toward each other; and feel the abdomen expand into your hands first then the chest gently expand.**

As you exhale, breathe through the mouth and, again, slowly count to three – one…two…three.

Continue to breathe in this way at your own pace**. Count with the inhale,** one….two…three…, **feel the abdomen expand and exhale through the mouth,** one…two…three, **feel the navel gently draw back toward the spine as you release the breath.**

On your final exhale, release that breath and allow the breath to return to its natural rhythm and pace.

Let's take a few moments to reflect on what we observed in breathing in this intentional way. **What did you notice?**

PAUSE for responses. (Possible answers: starting to feel calmer; relaxed; letting go)

SHOW Slide 9: Benefits of Breath Exercises: Well-Being

Breathing exercises are not only beneficial for physical health, but they have been found to be useful for mental and emotional well-being. **Breath exercises have been helpful in**:

- **Reducing symptoms of post-traumatic stress disorder (PTSD), including hyperarousal and re-experiencing** (Descilo et al., 2009; Seppälä et al., 2014).
- **Reducing symptoms of anxiety and depression** (Brown et al., 2013; Brown & Gerbarg, 2005; Katzman et al., 2012; Lalande et al., 2012; Tsang et al., 2006)

SHOW Slide 10: Three-Part Diaphragmatic Breathing

EXERCISE 2: Three-Part Diaphragmatic Breathing

Facilitator Note:

The purpose of this exercise is for participants to practice three-part diaphragmatic breathing. Demonstrate this exercise with the group and position yourself so the participants have a good visual of how the exercise is completed. This should take approximately 5 minutes.

Building on the diaphragmatic breath exercise that we tried a few moments ago, we'll explore the sensation of developing the three–part breath.

Consider for a moment the image of a deflated balloon. When the air fills the balloon, the base fills first, then the middle, then the top; narrower portions fill last. As you engage in this exercise, think of your breath as filling a balloon. We will inhale filling the abdomen first, then the middle chest, then the upper chest until the breath reaches the collarbone.

CHECK for understanding and clarify if needed.

Sit up tall. Notice your spine, your shoulders, and the location of your head. Place one hand on your abdomen, just below your navel, and the other hand on your chest, below the collarbone and over your sternum. Make small adjustments as needed to find efficient posture.

DEMONSTRATE the instructions below first and then guide the group.

Now, **slowly inhale into the abdomen and hold for a moment (count of one). Continue to inhale into the middle chest (count of two) and hold for a moment. Inhale further until the breath feels full under the collarbone (count of three) and**

hold. Slowly exhale. Release breath from the abdomen, first, then the middle chest, then the upper chest.

As you breathe in this three–part way, **notice the sensation of the front of the body moving with each part of the inhale.** This will help you focus on where to direct the inhale.

CONTINUE to facilitate this three-part breath for several more rounds for up to 1 minute with the group.

Release the deliberate breath now and allow your breath to again return to its natural rhythm and pace.

Let's take a few moments to reflect on what we observed in breathing in this intentional way. What did you notice?

PAUSE for responses. You may need to provide more prompts, such as ask what the participants noticed in their body; were there sensations or perhaps any changes in thoughts or mental activity (e.g. starting to feel calmer; relaxed; letting go). Participants may have similar feedback as they did from the last exercise – that is OK!

SHOW Slide 11: Alternate Nostril Breathing

EXERCISE 3: Alternate Nostril Breathing

Facilitator Note:

The purpose of this exercise is for participants to practice alternate nostril breathing. Demonstrate this exercise with the group and position yourself so that the participants have a good visual of how the exercise is completed. This should take approximately 5 minutes.

Our last breathing exercise is called **alternate nostril breathing. It is what it sounds like, we will alternate inhaling and exhaling through one nostril at a time.** Let's try it to see what we observe in our body and also what we might notice in terms of how we feel mentally. **Since this is not a usual way in which we breathe, recognize that it is natural to notice a sense of awkwardness.** Perhaps, practicing it at home may feel more comfortable. Let's give it a try.

With your right hand, make the hang ten sign by folding your index, third, and ring fingers into your palm; your thumb and pinky are left free. Bring your hand to your face, in front of your nose, and gently place your thumb to the outside of your right nostril and your pinky to the outside of the left nostril.

As you complete this exercise, **be sure to allow the breath to be relaxed, deep, and full for the inhale and the exhale.** Be sure to not rush taking in the breath or releasing it. To begin, **close the right nostril and gently and fully inhale through the left nostril. Then close the left nostril and exhale through the right nostril.**

Then inhale through the right nostril. Close the right nostril and exhale through the left nostril. Continue repeating and alternate nostrils after each inhalation.

CONTINUE to facilitate this for several rounds up to 1 minute.

Release the deliberate breath now and allow your breath to again return to its natural rhythm and pace.

Let's take a few moments to reflect on what we observed in breathing in this intentional way. What did you notice?

PAUSE for responses. (Possible answers: slower breathing; more relaxed; feeling calmer)

Great job everyone, we have explored some interesting techniques today, haven't we?

💻 SHOW Slide 12: Review of Key Points

Stress can impact our bodily systems and cause discomfort (Pearlin et al., 1981). **Practicing breath exercises can help you manage your stress, return to a relaxed state more quickly when you experience stress, and alleviate some of the mental symptoms of stress** (Brown et al., 2013; Brown & Gerbarg, 2005; Descilo et al., 2009; Lalande et al., 2012; Seppälä et al., 2014).

Today, we explored three different breath exercises that we can practice for short periods of time any time of the day. On the YRRP website (www.yellowribbon.mil/cms/event-handout) you will find a handout with descriptions of these exercises so you can continue them at home.

Do you have any questions about anything we discussed today?

PAUSE for responses.

Summary

SHOW Slide 13: Review of Objectives

Let's see if we met our objectives:

1. **What are some common, inefficient breathing patterns that we explored?** *PAUSE for responses.*
   (Possible answers: reverse breathing; chest breathing; effects of posture on breath – Tech Neck)

2. **What are some of the benefits of breathing exercises on the body and our mental state?** *PAUSE for responses.*
   (Possible answers: decreases blood pressure and heart rate; helps influence state of calm – parasympathetic nervous system activation; reduces anxiety and depression; also reduces hyperarousal and re-experiencing symptoms of PTSD)

3. **Which of the breathing exercises and techniques might you use to help you manage signs of stress?** *PAUSE for responses.*

SHOW Slide 14: Just Breathe

Thank you, and please complete your evaluation for this class.

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