

# Dose of Knowledge

A Pharmacists Teach Program

Recommended for Middle and High School

# Mental Health



## Educator Guide

This content is for educational/entertainment purposes only and is not meant to provide medical advice nor recommend the use of any type of medication. Viewers should consult their physician for medical advice.

## Background

The World Health Organization defines health as a state of complete physical, mental, and social well-being—and not merely the absence of disease or infirmity!<sup>1</sup> Our health depends on wellness in all parts of our lives. Our physical health refers to the condition of our body, including our activity level, diet, habits, and (lack of) disease. Our social health refers to our ability to have fulfilling relationships with others, and our mental health refers to our emotional, psychological, and social well-being.<sup>2</sup> Each component of our wellness depends on, and affects, the others.

While there is often a heavy focus on our physical health, people of all ages must continue to pay careful attention to their mental health—especially during difficult times. Our mental health not only affects how we think, feel, and act, but it also influences how we handle stress, relate to others, and make healthy choices.<sup>3</sup> There tends to be stigma, or negative attitudes and beliefs, toward people who have a mental health condition. However, feelings of fear, sadness, and loneliness are common responses to change, uncertainty, and the unknown. As a result of various current national and world situations, stress levels are higher than normal, and mental health disorders such as anxiety and depression may also become worse.

*Stress* is defined as our body and mind's response to a threat or demand. Symptoms of stress can include headaches, irritability, gastrointestinal problems, rapid heart rate, feeling overwhelmed or extremely worried, low energy, and having trouble quieting thoughts.<sup>4</sup> Stress tends to go away when the situation becomes better and the threat disappears.

Depression and high levels of anxiety are different from stress in that they can be mental health disorders. *Anxiety* can be brought on by our body's reaction to stress. While some people experience anxiety fleetingly, those with an anxiety disorder retain their anxiety even when demands/threats are lessened. These people may feel a constant sense of worry or anxiousness, including in situations where others are not anxious. Just over 7 percent of children and

adolescents in the United States have diagnosed anxiety.<sup>5</sup> *Depression* may take the form of several different depressive disorders. One of the most common forms is major depressive disorder. It causes severe symptoms that affect how you feel, think, and handle daily activities, such as sleeping, eating, or working. Just over thirteen percent of American adolescents have had this type of depression.<sup>6</sup>

If ever our stress or negative thoughts and feelings start to disrupt our daily functioning, it's important to begin paying closer attention to our mental health. Signs that our mental health needs this closer attention include frequent conflicts with friends and family, constant or ongoing irritability, feelings of intense anger or hopelessness, unusual changes in behavior or mood, changes in sleep or eating patterns, and memory, concentration, or thinking problems.<sup>7</sup> If students experience these symptoms, they should speak to a trusted adult and visit a medical practitioner.

In these cases, a medical practitioner or mental health professional may suggest therapy (in which the patient speaks with a mental health professional). One example is Cognitive Behavioral Therapy (CBT). CBT is a type of talk therapy that helps a person begin to see situations more clearly and respond to them more effectively. They may also prescribe medication and closely monitor the patient's progress. Selective serotonin reuptake inhibitors, or SSRIs, are a class of drugs that are typically used as antidepressants in the treatment of major depressive disorder and anxiety disorders. SSRIs are prescription medications that work to treat depression and anxiety disorders by increasing the amount of serotonin in the brain.

1 <https://www.who.int/about/who-we-are/frequently-asked-questions>

2 <https://www.mentalhealth.gov/basics/what-is-mental-health>

3 <https://www.cdc.gov/mentalhealth/index.htm#:~:text=Mental%20health%20includes%20our%20emotional,childhood%20and%20adolescence%20through%20adulthood>

4 <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-symptoms/art-20050987>

5 <https://www.cdc.gov/childrensmentalhealth/data.html>

6 <https://adaa.org/understanding-anxiety/depression>

7 [https://www.nimh.nih.gov/health/statistics/major-depression.shtml#:~:text=An%20estimated%203.2%20million%20adolescents,compared%20to%20males%20\(6.8%25\)](https://www.nimh.nih.gov/health/statistics/major-depression.shtml#:~:text=An%20estimated%203.2%20million%20adolescents,compared%20to%20males%20(6.8%25))

## Dose of Knowledge

### A Pharmacists Teach Program

Serotonin-norepinephrine reuptake inhibitors, or SNRIs, are another type of medication that work similarly to SSRIs. In addition to raising levels of serotonin in the brain, SNRIs also increase the levels of norepinephrine. Norepinephrine is a neurotransmitter that can play a role in alertness, concentration, mood, and energy levels. When there is more norepinephrine *and* more serotonin available in the brain, our moods may be better regulated.

Another type of prescription medication that may be used to treat the most severe types of anxiety are a class of drugs called benzodiazepines. Benzodiazepines can work to calm a person by increasing or enhancing the effects of the GABA (gamma-Aminobutyric acid) neurotransmitter in the brain. GABA is an inhibitory neurotransmitter, which means it decreases activity in the brain and central nervous system. By lowering activity in the brain and nervous system, it actually slows down our bodies functioning. When misused, benzodiazepines can be addictive and dangerous.

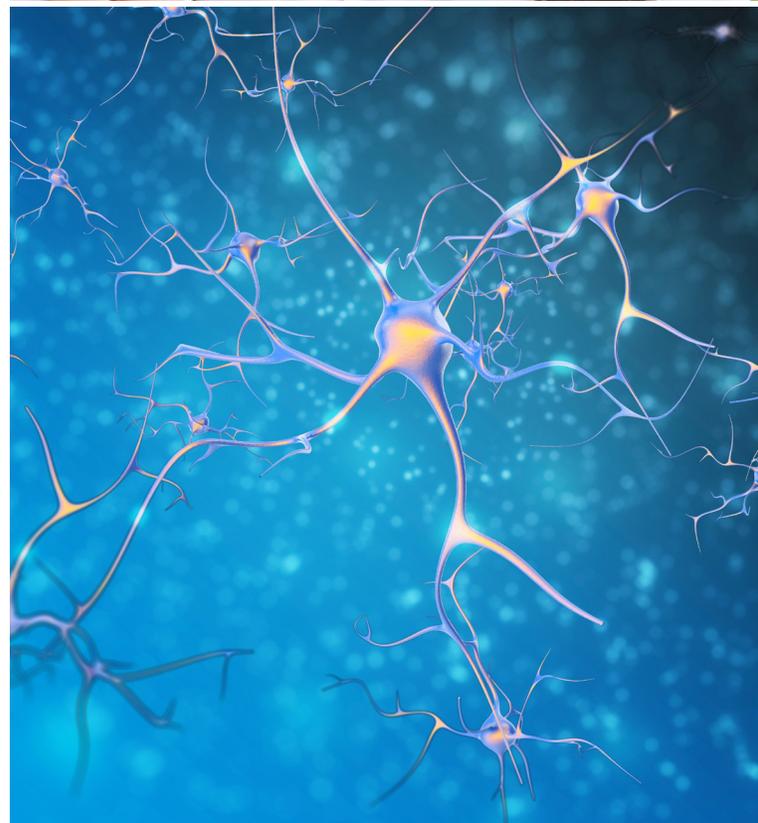
Some teenagers may think turning to illegal drugs and alcohol will help them deal with stress, anxiety, and depression. However, illegally using drugs or alcohol to self-medicate is not a healthy coping mechanism. Misusing benzodiazepines can be extremely dangerous, and the FDA requires that this drug class comes with the strongest warning about the risks of dependency, addiction, and withdrawal symptoms.<sup>8</sup>

The combination of substance use with other underlying mental health problems can be extremely dangerous. Adolescent alcohol and drug use can accelerate quickly when mental health disorders are present.<sup>9</sup> In fact, more than 65 percent of youths with substance use disorders also have a mental health disorder.<sup>10</sup> Because teens with mental health disorders feel even worse when they are not using alcohol or

<sup>8</sup> <https://www.healthychildren.org/English/health-issues/conditions/COVID-19/Pages/Signs-your-Teen-May-Need-More-Support.aspx>

<sup>9</sup> <https://www.fda.gov/news-events/press-announcements/fda-requiring-labeling-changes-benzodiazepines>

<sup>10</sup> <https://drugfree.org/wp-content/uploads/2019/02/Substance-Use-Mental-Health-in-Teens-and-Young-Adults.pdf>



## Dose of Knowledge

### A Pharmacists Teach Program

drugs, substance misuse is a risk factor for suicide in teens with depression. In addition, substance misuse can lower the effectiveness of any treatment or medication that the teen may be using to help manage his or her mental health disorder.<sup>11</sup>

It is important for adolescents to understand that there is a certain level of anxiety that is actually productive. When adolescents do not know how to cope with difficult feelings, they can avoid any stressors by turning to risky behaviors or completely isolating. Teens should understand what is an age-appropriate level of anxiety/sadness that they should develop strategies to cope with versus a disorder that requires more intensive treatment. At the same time, it is important to know when anxiety/depression reaches a level in need of more intervention, as therapeutic and pharmaceutical treatment can significantly reduce engaging in dangerous or risky behaviors.

This lesson was developed to provide adolescents with healthy and practical daily strategies for managing stress, important information about the symptoms of and treatments for anxiety and depression, warnings of the dangers of prescription medicine misuse, and resources to turn to when additional support is needed. By talking openly about mental health, normalizing words and terms that allude to this part of wellness, and learning more about how to take care of their own health, students will be better able to navigate periods of uncertainty and stress throughout their lives.

## Overview

In this digital lesson module, students will learn about the key components of health and the important role that each part of their health plays in their overall wellbeing. They will then focus on mental health as they consider the causes and effects of stress, anxiety, and depression. They will explore options and strategies for supporting their own mental health, and they will apply these strategies to stressful scenarios they may experience throughout their lives. They will also learn about treatment and examples of medication that may be used to treat anxiety and

depression, and the risks associated with misusing prescription medication and other substances. They will ultimately identify resources they can turn to for personal mental health support, and they will consider what they can do to alleviate mental health's stigma in the world around them.

## Use of Presentation

The accompanying presentation was created with PowerPoint so that it can be used in a variety of classrooms. If you are using a laptop with an LCD projector, simply progress through the PowerPoint by clicking to advance. The interactive aspects of the presentation, including images, text boxes, and links that open in a web browser, are set to occur on click. If you are using an interactive whiteboard, tap on each slide with your finger or stylus to activate the interactive aspects of the presentation. The notes for each slide provide information on how to proceed.

This guide provides slide-by-slide instructions to ensure educators are prepared to explain, discuss, and facilitate the content in the accompanying presentation. Note that timing guidance is provided as a recommendation, but each situation will be unique.

## Session Structure

The Dose of Knowledge sessions provide the following information to guide the educator through its implementation and teach the necessary skills and content.

- **Learning Objectives:** Each session includes its overall goals as well as specific learning objectives for students.
- **Materials:** Any materials necessary for the session are clearly outlined and included when possible to facilitate easy implementation of the session.

<sup>11</sup> <https://drugfree.org/wp-content/uploads/2019/02/Substance-Use-Mental-Health-in-Teens-and-Young-Adults.pdf>

## Dose of Knowledge

### A Pharmacists Teach Program

- **Key Terms:** Any words that can be used as vocabulary words will be defined for the teachers.
- **Key Talking Points:** To help the teacher guide discussion and reinforce key concepts, key points are listed next to the corresponding slides.
- **Reflections:** A learning summary is provided at the end of each session for the educator to provide reinforcement of the key concepts and objectives of each session.

## Content Areas

Health, Physical Education

## Activity Duration

Approximately 45 minutes

## Grade Band

6–12

## Objectives

Students will

- Understand that mental health is an important component of overall health
- Create a tip sheet that summarizes proactive and reactive steps that can support their mental health now and in the future
- Understand how prescription medication for anxiety and depression works, as well as the risks associated with prescription medication misuse
- Explain steps that should and should not be taken when feelings of stress, depression, or anxiety begin to impact their daily lives
- Identify support resources in their families, communities, and beyond

## Materials Needed

- Device with Internet access and projection capabilities, one for the educator
- Mental Health Strategies handout, one per student

## Educator Prep

1. Read through the instructions to familiarize yourself with the content. Note that timing guidance is provided as a recommendation. The Lesson At-a-Glance below may be used to help you determine how long to spend on each section.
2. Prepare all materials before the lesson begins.

## Key Terms

- **Health:** a state of complete physical, mental, and social well-being
- **Physical health:** the condition of the human body, including activity level, diet, habits, and (lack of) disease
- **Social health:** our ability to interact with and have fulfilling relationships with others, as well as how comfortably we can adapt in social situations
- **Mental health:** our emotional, psychological, and social well-being, which affects how we think, feel, and act
- **Stress:** the body and mind's response to a threat or demand. Stress affects everyone. It can be managed and tends to go away when the situation becomes better and the threat disappears. Long-term and/or severe stress can have a detrimental effect on health.
- **Anxiety:** a response to our body's reaction to stress. While some people experience feelings of anxiety fleetingly, those with an anxiety disorder may feel a constant sense of worry or anxiousness, including in situations where others are not anxious.

## Dose of Knowledge

### A Pharmacists Teach Program

- **Depression:** a serious but common and treatable mental disorder in which someone may feel an overwhelming sense of sadness or a loss of interest in most usual activities, in addition to other symptoms
- **Substance Use Disorder:** a disease that affects a person's brain and behavior and leads to an inability to control the use of a legal or illegal drug or medication
- **Cognitive behavioral therapy:** a type of talk therapy often recommended for those who are beginning to experience symptoms of anxiety or depression
- **Pharmacist:** licensed healthcare professionals who work in pharmacies and help the public with many parts of their health, including their medication. It's their job to prepare and dispense medications, as well as help patients better understand them.
- **Selective serotonin reuptake inhibitor (SSRI):** a prescription antidepressant medication that works to treat depression and anxiety disorders by increasing the amount of serotonin in the brain
- **Serotonin-norepinephrine reuptake inhibitors (SNRI):** a prescription antidepressant medication that works similarly to SSRIs to treat anxiety and depression by increasing the amount of serotonin and norepinephrine in the brain
- **Benzodiazepines (Benzos):** a prescription anti-anxiety medication that raises the brain's levels of an inhibitory neurotransmitter called GABA (gamma-Aminobutyric acid). When misused, benzodiazepines can be addictive and dangerous.
- **Stigma:** a sense of shame or disgrace associated with a particular circumstance, quality, or person

## Lesson At-a-Glance

Section	Activity	Approximate Timing
Engage	Session introduction and discussion	3 minutes
Learn	What are the key components of health?	2 minutes
	Focus on mental health	2 minutes
	Focus on mental health: stress	3 minutes
	Tips for managing stress	5 minutes
	Application of stress strategies	5 minutes
	Focus on mental health: anxiety	2 minutes
	Focus on mental health: depression	3 minutes
	Mental health support: therapy and prescription medication	4 minutes
	Prescription medication misuse	6 minutes
	Mental health warning signs	3 minutes
	Power of stigma	2 minutes
Resources	3 minutes	
Reflect	Summary of key points	2 minutes

# Procedure

## Engage

### Title Slide

1. Begin by telling students that today you will be discussing well-being and mental health. Explain that the materials you are about to present have been developed by a group of professionals from all different backgrounds.

### Slide 1

2. Dive into the lesson, and ask students: What makes you feel worried, anxious, or nervous? Call on a few students to share their thoughts.
3. Then click once and explain that everyone has different triggers that cause stress—from homework to relationships to family problems. National and global situations, such as experiences like COVID-19 or community and social unrest, can also add stress to people's lives.

### KEY TALKING POINT:

- Everyone has different triggers that cause stress.

## Learn

### Slide 2

4. Explain that the level of stress we feel can have a direct effect on our health.
5. Encourage students share: What is health?
6. Then click once and explain that the World Health Organization defines health as a state of complete physical, mental, and social well-being and not just the absence of disease.<sup>12</sup> In other words, health is not just about whether you feel sick; it's about you feeling well in all parts of your life!

7. Click again and further explain the three parts of health:
  - Physical health: refers to the condition of our body, including our activity level, diet, habits, and (lack of) disease.
  - Social health: refers to our ability to have fulfilling relationships with others.
  - Mental health: refers to our emotional, psychological, and social well-being.<sup>13</sup>
8. Acknowledge that it can be more difficult to talk about some parts of health than other parts. Tell students that there is often a stigma, or a feeling of shame or disapproval, associated with discussing and acknowledging mental health. However, all three parts of our health are related, affect one another, and are equally important!

### KEY TALKING POINTS:

- Health is about feeling well in all parts of your life.
- Health consists of physical health, social health, and mental health.
- All parts of our health are related and equally important.

### Slide 3

9. Reiterate that today's session will focus especially on mental health.
10. Click once, and explain that mental health includes our emotional, psychological, and

<sup>12</sup> <https://www.who.int/about/who-we-are/frequently-asked-questions>

<sup>13</sup> <https://www.mentalhealth.gov/basics/what-is-mental-health>

# Dose of Knowledge

## A Pharmacists Teach Program

social well-being. It affects how we feel, think, and act. It plays a key role in determining how we relate to others, handle stress, and make healthy choices. It is important in every stage of our lives.<sup>14</sup>

11. Go on to explain that just as we go to the doctor, eat well, and try to be active in order to take care of our physical health, it is also important to take care of our mental health.
12. Be sure students understand that they already employ many strategies and have many habits that help their mental health. For instance, as they grow up, they learn how to have good judgment, how to cope with tough situations, how to be resilient, and how to adapt or change.

### KEY TALKING POINTS

- Mental health:
  - includes our emotional, psychological, and social well-being.
  - affects how we feel, think, and act.
  - plays a key role in determining how we relate to others, handle stress, and make healthy choices.
  - is important in every stage of our lives.

### Slide 4

13. Acknowledge that even when we have the strongest mental health, it's normal to have bad moods and feel sad, down, or stressed. Feeling these emotions is part of being human.
14. Define *stress* as how the brain and body responds to any demand or threat. Any type

of challenge—such as performance at work or school, a significant life change, or a traumatic event—can be stressful. Stress tends to go away when the situation becomes better and the threat disappears.

15. Tell the class that throughout our lives, we may experience different kinds of stress. Then click once to explain different kinds of stress:
  - Acute stress is a direct result of a perceived threat. A threat could be as small as an alarm going off or something bigger—like taking a big test. Though acute stress comes on quickly, it does not last long. When the threat is over, acute stress passes.<sup>15</sup>
  - Chronic stress occurs when the body feels like it is constantly dealing with a threat. It may be a result of something like a high-pressure job or a difficult family situation that is ongoing. While our bodies are designed to handle acute stress, ongoing chronic stress is not healthy.<sup>16</sup>
  - Eustress is a kind of stress that is actually good for us! In some situations, stress can be positive because it helps give us the energy, motivation, and concentration we need to do well—whether it's at a sporting event or an important presentation. Eustress can help us work toward goals, stay motivated, and maintain a positive attitude about life!<sup>17</sup>
16. Click again and tell the class that when we experience these different kinds of stress, our body initially reacts in a similar way. When the part of the brain called the amygdala senses a threat, it sends a message to the brain's hypothalamus.

14 <https://www.cdc.gov/mentalhealth/index.htm>

15 <https://www.verywellmind.com/all-about-acute-stress-3145064>

16 <https://www.verywellmind.com/chronic-stress-3145104>

17 <https://www.healthline.com/health/eustress#the-bottom-line>

## Dose of Knowledge

### A Pharmacists Teach Program

17. Explain that the hypothalamus is the brain's emergency command center, and it gets the body ready for a "flight or fight" response. In other words, it immediately prepares the body to flee the stressful situation or fight off the threat. It does this by signaling the body to produce hormones called adrenaline and cortisol, which increase our breathing and raise our heart rate and blood pressure. This gives us the burst of energy we need to deal with the threat.<sup>18</sup>
18. Help students understand that during acute stress and eustress, the body returns to a relaxed state once the threat passes. However, during chronic stress the stress remains and the body does not have a chance to return to normal. Being in this heightened state can eventually negatively impact most systems in the body.
19. Elaborate on these negative impacts by explaining:
  - A person with chronic stress may have physical symptoms such as low energy, headaches, stomachaches, and even chest pains.
  - Their mental state can be affected by increasing feelings of irritability, feeling overwhelmed or extremely worried, or having trouble quieting their thoughts.
  - In addition, long-term chronic stress can increase one's risk of heart problems, digestive problems, and more.
  - Chronic stress can also affect the brain—leading to long-term changes in how it is structured and how it functions. Stress may kill new neurons, or brain cells, in the brain's hippocampus, which can impact memory. Stress can also contribute to mental health problems like anxiety and depression.<sup>19</sup>

#### KEY TALKING POINTS:

- Stress is how the brain and body responds to any demand or threat.
- We experience different types of stress, which can include: acute stress, chronic stress, and eustress.
- When we experience a threat, the hypothalamus gets the body ready for a flight or fight response.
- During acute stress and eustress, the body returns to a relaxed state once the threat passes.
- During chronic stress, the stress remains and the body does not have a chance to return to normal. This can eventually negatively impact most systems in the body.

#### Slide 5

20. Tell the class that it's important to know and practice strategies for managing stress. While these strategies can be helpful reactively (or after you start feeling stressed), it's even better to begin them proactively (or before you start feeling stressed).
21. Ask students to reflect on any strategies that they use or activities that they do because they help with stress in their lives.
22. Then distribute the Mental Health Strategies handout to each student, and explain that this handout contains an overview of what you are about to discuss together. As students discover tips that could be helpful to them, they should add notes to each of the categories.

<sup>18</sup> <https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response>

<sup>19</sup> <https://www.verywellmind.com/surprising-ways-that-stress-affects-your-brain-2795040>

## Dose of Knowledge

### A Pharmacists Teach Program

23. Remind students that mental health is dependent on all aspects of our health. This is why they are about to learn tips for their physical health, social health, and mental health!
24. Then click once to display the first category (Physical Health) and ask a student to read the information on the slide aloud.
25. Give students a moment to jot notes on their handouts that could help them manage their own physical health.
26. Then click again to display the following category (Social Health) and ask a new student to read aloud.
27. Again, give students a moment to jot tips on their handouts that could help them manage their own social health.
28. Then click a third time to display the final health category (Mental Health) and ask a new student to read aloud.
29. Give students a moment to jot notes on their handouts for this final category.
30. Before moving on to the next slide, explain that there are also many free apps and websites designed to support health. Apps that track physical activity or offer virtual fitness classes can support your physical health, and online games or apps that help you find volunteer opportunities can support your social health. There are many apps that support your mental health, too: apps with guided meditation, mood trackers, and digital journals are just a few examples!

**Tip:** *If a paper copy cannot be distributed, you may share the PDF with your students or direct them to the Dose of Knowledge partnership site <https://www.doseofknowledge.com/> to obtain the resource.*

### KEY TALKING POINT:

- There are many strategies we can employ to proactively manage stress in our lives and protect our physical, social, and mental health.

### Slide 6

31. Reiterate that the strategies that were just shared can be used to help us manage all kinds of stress throughout our lives.
32. Explain that you are about to share a couple situations. Tell the class that while these are situations that they may have experienced during the uncertainty of COVID-19, they are also situations that they may find themselves dealing with at different points throughout their lives.
33. Instruct students to use their handout to work with a partner (or individually if the presentation is virtual) to identify stress management strategies that may be helpful as each situation is displayed.
34. Then click once to display and read:
  - Situation 1: Major Disappointments  
You missed a big milestone or life event that you were looking forward to—for example, the last day of school, graduation, or prom.
35. Ask students: What could you do to alleviate stress? Give pairs a moment to identify strategies and then call on students to share. If they do not share the following responses, be sure to mention them:
  - Acknowledge, share, and express your feelings
  - Connect with your friends and try to celebrate the milestone in another way!
36. Tell students: Remember certain situations in life are going to be out of your control. Remember to

## Dose of Knowledge

### A Pharmacists Teach Program

always try and focus your thoughts and energy on the things you can control. Then click again to display and read:

- Situation 2: Information Overload  
World news, your social media feeds, and everything in-between makes you feel like you are drowning in information and like you can never catch up.

37. Again, ask students: What could you do to alleviate stress? Give pairs a moment to identify strategies and then call on students to share. If they do not share the following responses, be sure to mention them:

- Watch or read the news only at specific times each day and talk to your family about what you have seen or read.
- Engage in a hobby you enjoy, like taking a walk or reading.
- Take breaks from social media or limit your daily engagement.
- Focus on trusted sources and seek out good news.
- Take positive action.

#### KEY TALKING POINTS:

- Remember certain situations in life are going to be out of your control. Remember to always try and focus your thoughts and energy on the things you can control.
- It is important to find strategies that work for you that you can use to manage stress throughout your life.

#### Slide 7

38. Tell the class that when an external threat makes us feel stressed, we also may feel anxious.

39. Help students understand the meaning of *anxious* by explaining that while stress is the body's reaction to a threat, anxiety is the body's reaction to this stress. Occasional anxiety is an expected part of life. You might feel anxious when faced with a problem at school, before taking a test, or before making an important decision. A certain amount of anxiety can be helpful. Anxiety can help us make good decisions like studying for a test or not driving too fast.<sup>20</sup>

40. Click once and explain that it's normal to feel anxious sometimes, but it is also possible to have an anxiety disorder. Anxiety disorders occurs when worry is excessive and beyond what is expected for the situation for a longer period of time. Anxiety disorders should be diagnosed by a mental health professional or a primary care provider. There are several different kinds of anxiety disorders, including generalized anxiety disorder, panic disorder, and various phobia-related disorders.<sup>21</sup>

41. Go on to explain that anxiety disorders involve more than temporary worry or fear and they can affect all parts of our health. Elaborate by telling the class:

- For a person with an anxiety disorder, the anxiety does not go away and can get worse over time.
- People with anxiety disorders may feel excessive fear, worry, difficulty concentrating as well as irritability and an inner feeling of restlessness-which can mean feeling wound-up, on edge, or unable to relax. They can experience difficulty sleeping. They also may feel out of place in social settings. They may seem withdrawn or uncomfortable or overly emotional.<sup>22</sup>
- The symptoms of an anxiety disorder can interfere with daily activities such as school performance, work, and relationships.

20 <https://adaa.org/understanding-anxiety/related-illnesses/stress#:~:text=Everyone%20experiences%20stress%20and%20anxiety,least%20moderately%20with%20their%20lives.>

21 <https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml>

22 [https://www.aacap.org/AACAP/Families\\_and\\_Youth/Resource\\_Centers/Anxiety\\_Disorder\\_Resource\\_Center/Your\\_Adolescent\\_Anxiety\\_and\\_Avoidant\\_Disorders.aspx#:~:text=Teenagers%20who%20suffer%20from%20excessive,discomforts%20associated%20with%20pubertal%20changes.](https://www.aacap.org/AACAP/Families_and_Youth/Resource_Centers/Anxiety_Disorder_Resource_Center/Your_Adolescent_Anxiety_and_Avoidant_Disorders.aspx#:~:text=Teenagers%20who%20suffer%20from%20excessive,discomforts%20associated%20with%20pubertal%20changes.)

## Dose of Knowledge

### A Pharmacists Teach Program

42. Click again and explain that when the body initially feels anxiety, it reacts similarly to how it reacts to stress: It prepares for the situation by releasing hormones called adrenaline and cortisol, as well as increasing the body's breathing rate and heart rate. It also increases blood flow to the brain.
43. Tell the class that common symptoms for anxiety disorders include trouble breathing, a racing heart, dry mouth, upset stomach, sweating, trembling, muscle tension, headaches and irritability.
44. Explain that anxiety disorders and chronic stress also have similar negative long-term effects on the brain and body. When the body is in a constant state of anxiety, it continues to release stress hormones. This can cause headaches and dizziness, as well as increase the likelihood of mental health disorders like depression. Anxiety disorders can also put the body at an increased risk for heart, digestive, and immune system problems.

#### KEY TALKING POINTS:

- Anxiety is the body's reaction to stress.
- Occasional anxiety is an expected part of life. It's normal to feel anxious sometimes. An anxiety disorder should be diagnosed by a mental health professional or a primary care provider.
- For those with anxiety disorders, the anxiety does not go away and can get worse over time. Anxiety disorders occurs when worry is excessive and beyond what is expected for the situation for a longer period of time.
- When the body feels anxiety, it reacts similarly to how it reacts to stress and releases extra adrenaline and cortisol.
- Anxiety disorders and chronic stress also have similar negative long-term effects on the brain and body.

#### Slide 8

45. Tell the class that depression is another type of mental health disorder that affects all part of our health. While everyone feels sadness at different points in their lives, it tends to pass with time. Depression is different.
46. Elaborate and explain that depression is more than occasionally feeling blue, sad, or down in the dumps. Depression is a mood disorder involving feelings of sadness, discouragement, despair, or hopelessness along with other changes to your body and thinking. It can last for weeks, months, or even longer. It is not possible to just "snap out" of depression or choose to be positive.
47. Click once and explain that depression can take the form of several different disorders, including major depressive disorder, persistent depressive disorder, bipolar disorder, and seasonal affective disorder.<sup>23</sup> Like with an anxiety disorder, a depression disorder should be diagnosed by a mental health professional or a primary care provider.
48. Share that one of the most common forms of depression is major depressive disorder. About seven percent of American adults and thirteen percent of teenagers have had this type of depression.<sup>24, 25</sup> Further explain major depressive disorder by sharing:
  - Major depressive disorder negatively affects how you feel, the way you think, and how you act. It can cause an overwhelming sense of sadness and/or a loss of interest in activities you once enjoyed. Changes to your body and thinking can include, but are not limited

23 <https://www.health.harvard.edu/mind-and-mood/six-common-depression-types>

24 [https://www.nimh.nih.gov/health/statistics/major-depression.shtml#:~:text=An%20estimated%203.2%20million%20adolescents,compared%20to%20males%20\(6.8%25\)](https://www.nimh.nih.gov/health/statistics/major-depression.shtml#:~:text=An%20estimated%203.2%20million%20adolescents,compared%20to%20males%20(6.8%25))

25 <https://www.nimh.nih.gov/health/statistics/major-depression.shtml>

## Dose of Knowledge

### A Pharmacists Teach Program

to, changes in appetite, changes in sleep, feelings of worthlessness, recurrent thoughts of death, and trouble thinking, concentrating, or making decisions.

- In teenagers, symptoms of depression may include feeling sadness, anger, feeling negative and worthless, feeling misunderstood and extremely sensitive, having poor performance or attendance at school, eating or sleeping too much, using drugs or alcohol, loss of interest in normal activities, and/or avoidance of social interaction.<sup>26</sup>
49. Conclude the slide by explaining that depression affects more than a person's mood. It affects thinking, too. It can interfere with the ability to notice or enjoy the good things in life. Depression can drain the energy, motivation, and concentration a person needs for normal activities.

#### KEY TALKING POINTS:

- Depression is a mood disorder involving sadness, discouragement, despair, or hopelessness that lasts for weeks, months, or even longer.
- A depression disorder should be diagnosed by a mental health professional or a primary care provider.
- One of the most common forms of depression is major depressive disorder.
- Depression can affect a person's mood, thinking, energy, motivation, and concentration.

#### Slide 9

50. Tell the class that research suggests that there are many different factors that can contribute to depression, including stressful life events, medication, medical problems, and issues that the brain has in managing mood.<sup>27</sup>
51. Go on to explain that regardless of how depression may begin, it affects the brain as well as the body. Give the following examples:
- Episodes of depression can cause the brain to release cortisol, which is the same hormone that the body releases when you are anxious or stressed. Studies show that ongoing increased levels of cortisol can impact different areas of the brain and can lead to memory problems, sleep problems, changes in activity levels, and more.
  - Depression can affect communication between brain cells. In a healthy brain, chemical messengers called neurotransmitters help nerve cells communicate with one another. Their messages help maintain our mood, senses, ability to learn, movement, and more. However, when people are depressed, this communication system doesn't always work as it should. Depression has been linked to problems or imbalances in the brain with regard to neurotransmitters like serotonin, norepinephrine, and dopamine.

26 <https://www.mayoclinic.org/diseases-conditions/depression/symptoms-causes/syc-20356007>

27 <https://www.health.harvard.edu/mind-and-mood/what-causes-depression#:~:text=Research%20suggests%20that%20depression%20doesn,%2C%20medications%2C%20and%20medical%20problems.>

## Dose of Knowledge

### A Pharmacists Teach Program

#### KEY TALKING POINTS:

- Depression affects the body *and* the brain.
- Depression can affect communication between brain cells, which can affect our mood.
- Episodes of depression can also cause the brain to release cortisol, which can affect the brain in different ways—including memory problems, sleep problems, and changes in activity levels. Depression can affect communication between brain cells and has been linked to problems or imbalances in the brain with regard to neurotransmitters, like serotonin, norepinephrine and dopamine.

#### Slide 10

52. Tell students that if their negative thoughts, feelings, and/or physical symptoms ever start to disrupt their daily functioning, they should turn to a trusted adult, explain what is happening, and ask this person to refer them to (or to take them to see) a medical practitioner.
53. Click once and explain that after evaluating their symptoms and their personal health history, the doctor or mental health professional may first be referred to a therapist. One example is cognitive behavioral therapy or CBT. This is a type of talk therapy in which you speak with a mental health counselor for a number of sessions so you can begin to see situations more clearly and respond to them more effectively. It can help you change any negative thoughts which are impacting your feelings and behavior.
54. It's important to point out to students that while therapy can be helpful for those with severe mental health conditions, it can also help *anyone* learn how to better handle stressful life situations!<sup>28</sup>

#### KEY TALKING POINTS:

- Turn to a trusted adult if your thoughts, feelings, or physical symptoms affect your daily functioning, and see a medical practitioner.
- This medical practitioner may refer you to talk therapy, like cognitive behavioral therapy.

#### Slide 11

55. Explain that if therapy alone is not enough, your doctor may also prescribe medication to treat your anxiety or depression. Your medical practitioner and/or mental health professional will work with you to determine whether medication is an appropriate therapy for you. Your medical practitioner and/or mental health professional will work with you to help you find the medicine and dosage that works best for you.<sup>29</sup> Explain that you're going to review some types of medications that may be used, but that this is not a full list of types of medications that can be used.
56. Click once, and explain that selective serotonin reuptake inhibitors, or SSRIs, are a class of prescription medications that work to treat depression and anxiety disorders by increasing the amount of serotonin in the brain. Continue to explain SSRIs by reviewing the following:
  - Serotonin is a neurotransmitter (or chemical messenger) that relays messages and signals between nerve cells in the brain called "neurons." Serotonin is responsible for helping with many important functions in our brain, including regulating emotions, memory, mood, and sleep.

28 <https://www.mayoclinic.org/tests-procedures/cognitive-behavioral-therapy/about/pac-20384610>

29 <https://www.mayoclinic.org/diseases-conditions/depression/in-depth/ssris/art-20044825>

## Dose of Knowledge

### A Pharmacists Teach Program

- SSRIs work by blocking neurons from reabsorbing serotonin. This means that there is more serotonin available in the brain. Since serotonin is believed to regulate mood and anxiety, increased levels of serotonin in the brain can lessen symptoms of depression and anxiety.<sup>30</sup>
  - Common SSRIS may include brand names such as: Prozac® (fluoxetine), Lexapro® (escitalopram), and Zoloft® (sertraline).
57. Click again and explain that serotonin-norepinephrine reuptake inhibitors, or SNRIs, are another type of medication that work similarly to SSRIs. Further explain SNRIs by reviewing the following:
- In addition to raising levels of serotonin in the brain, SNRIs also increase the levels of norepinephrine. Norepinephrine is a neurotransmitter that can affect concentration, mood, and energy levels. When there is more norepinephrine and more serotonin available in the brain, our moods may be better regulated.
  - Common SNRIS may include brand names such as Cymbalta® (duloxetine), Pristiq® (desvenlafaxine), and Effexor XR® (venlafaxine).
58. Click a third time and tell the class that another type of prescription medication that may be used to treat the most severe types of anxiety are a class of drugs called benzodiazepines. Elaborate on benzodiazepines by explaining that:
- Benzodiazepines can work to calm a person by increasing or enhancing the effect of the GABA (gamma-Aminobutyric acid) neurotransmitter in the brain.
  - GABA is an inhibitory neurotransmitter, which means it decreases activity in the brain and central nervous system. By lowering activity

in the brain and nervous system, it actually slows down our bodies functioning.

- Common benzodiazepines may include brand names such as Xanax® (alprazolam), Klonopin® (clonazepam), Ativan® (lorazepam), or Valium® (diazepam).
- Benzodiazepines should be used in the lowest dose for the shortest duration of time.

### KEY TALKING POINTS:

- If therapy is not enough, your doctor may also prescribe medication to treat your anxiety or depression.
- The types of medication for anxiety or depression can include but are not limited to:
  - Serotonin reuptake inhibitors (SSRIs), which regulate mood and anxiety by increasing serotonin in the brain.
  - Serotonin-norepinephrine reuptake inhibitors (SNRIs), which regulate mood by increasing serotonin and norepinephrine in the brain.
  - Benzodiazepines, which decreases activity in the brain and central nervous system by increasing levels of the GABA (gamma-Aminobutyric acid) neurotransmitter in the brain.
  - Benzodiazepines should be used in the lowest dose for the shortest duration of time

<sup>30</sup> <https://www.mayoclinic.org/diseases-conditions/depression/in-depth/ssris/art-20044825>

# Dose of Knowledge

## A Pharmacists Teach Program

### Slide 12

59. Ask students: Has anyone heard other names for benzodiazepines?
60. After encouraging students to share their responses, share that common street names for benzodiazepines include benzos, xannies, downers, nerve pills, and tranks.
61. Explain that one reason street names or slang terms are used for benzodiazepines is because, even though they are not illegal if taken as prescribed and by the person they are prescribed for, they can be illegally and dangerously misused.
62. Tell the class that they are now going to watch a video in which a pharmacist, who works at CVS, further explains benzodiazepines. Take a moment to explain that pharmacists are licensed healthcare professionals who work in pharmacies and help the public with many parts of their health, including their medication. It's their job to prepare and dispense medications, as well as help patients better understand them.
63. Then click to play the video.

### KEY TALKING POINTS:

- Benzodiazepines are also known as benzos, xannies, downers, nerve pills, and tranks.
- Benzodiazepines can be illegally and dangerously misused.

### Slide 13

64. Tell the class that when we feel symptoms of extreme stress, anxiety, or depression, it's important to remember the dangers of misusing prescription drugs and other substances, like alcohol or illegal drugs.
65. Acknowledge that it's not uncommon to hear someone say that they "need a drink" when they feel stressed or to see celebrities, musicians, people we follow on social media, or someone on a television show uses substances, like drugs or alcohol, to numb their pain.
66. Ask the class: Have you ever seen someone on social media make it seem like substance misuse will make everything better?
67. After encouraging students to share their observations, click once and explain that illegally using drugs, misusing prescription medications, or drinking alcohol is *not* a healthy way to deal with stress, anxiety, or depression.
68. Tell students that substance misuse can alter your brain chemistry, which is especially dangerous in teenagers, whose brains are still developing. It can also lead to addiction or a Substance Use Disorder.
69. Explain that addiction, also referred to as Substance Use Disorder, is a disease that affects a person's brain and behavior and leads to an inability to control the use of legal or illegal drugs. These changes in the brain can occur with repeated use of drugs or alcohol, causing nerve cells to communicate differently.

## Dose of Knowledge

### A Pharmacists Teach Program

#### KEY TALKING POINTS:

- Illegally using drugs, misusing prescription medications, or drinking alcohol is not a healthy way to deal with stress, anxiety, or depression.
- Substance misuse can alter the brain chemistry of teenagers' developing brains.
- Substance misuse can also lead to addiction or a Substance Use Disorder.

#### Slide 14

70. Guide students in understanding that if their negative thoughts and feelings start to disrupt their daily functioning, they must begin to pay closer attention to their mental health.
71. Explain that while you've already gone over some of the symptoms of anxiety and depression, a more complete list of warning signs that our mental health needs more attention include the following [click once to display and read the symptoms below]:
- constant and ongoing irritability, feelings of intense anger or hopelessness
  - frequent conflicts with friends and family
  - unusual changes in behavior or mood—such as avoiding social connection or suddenly having no interest in activities that you once enjoyed
  - changes in sleep: having a hard time falling or staying asleep or sleeping all the time
  - changes in eating patterns or weight
  - memory, concentration, or thinking problems
72. Then click again and explain that even more serious warning signs that we may need mental health help include an increase in reckless behavior (like using illicit drugs, misusing

prescription drugs or using alcohol) as well as thinking or talking about death or suicide.<sup>31</sup>

73. Be sure to emphasize that if these signs ever arise, it's important to speak with a trusted adult such as a parent or guardian, teacher, or school counselor and seek help immediately.
74. Finally, click a third time and wrap up the slide by asking students to brainstorm a quick learning summary to the following question: If you or a friend are experiencing any of these warning signs and need mental health support, what is an example of a step you should take? What is an example of a step you should not take?

#### KEY TALKING POINTS:

- There are many important warning signs that indicate that our mental health needs more attention.
- If you ever have an increase in reckless behavior or start thinking or talking about death or suicide, seek help immediately.

#### Slide 15

75. Tell the class that teachers are just one important part of their support network. Go on to explain that if they (or someone they know) needs mental health support, there are a variety of resources they can turn to.
76. Click once and encourage the class to try to use their "human resources" first. Explain that human resources:
- are people you can reach out to if you need help or someone to listen. They are people you trust and who care about you and want to

31 <https://www.healthychildren.org/English/health-issues/conditions/COVID-19/Pages/Signs-your-Teen-May-Need-More-Support.aspx>

## Dose of Knowledge

### A Pharmacists Teach Program

see you live a long and healthy life.

- may include people they know in their everyday life, including immediate or extended family; adults at school such as teachers, coaches, or school counselors; and friends.
- may also include healthcare providers, like those who focus on mental health. Examples can include counselors, therapists, clinical social workers, psychologists, and psychiatrists.

77. Explain that while students can listen to, speak with, and support their friends, it's important to turn to one of these trusted adults to ask for help if they or one of your friends need it.
78. Click again and tell the class that there are also other human resources who are standing by, just a phone call away. Phone numbers with human resources on standby include:
  - 1-800-273-TALK / 1-888-628-9454 (in Spanish): While this is the National Suicide Prevention Lifeline, it provides help on all subjects and can put you in touch with a nearby support contact.
  - 1-800-662-HELP: This is the Substance Abuse and Mental Health Service's Administration's National Helpline, and it has free support available 24/7.
  - The Crisis Text Line: by texting HOME to 741741, you will immediately be connected with a crisis counselor.
79. Click a third time and ask students to remember: If you or someone you know is in immediate danger, call 911.
80. Then wrap up the slide by asking students to identify at least three human resources (in person or by phone) that they could turn to for mental health support. Encourage them to take a moment to list these resources in the space

provided on the bottom of their Mental Health Strategies handout.

#### KEY TALKING POINTS:

- If you (or someone you know) needs mental health support, turn to your human resources first.
- Human resources are:
  - people who care about you and want to see you live a long and healthy life.
  - may include family or people in your school and community, like teachers, coaches, counselors, medical professionals, pharmacists, or other trusted adults
- There are also many free and anonymous phone numbers available to provide 24/7 support.
- If you or someone you know is in immediate danger, call 911.

#### Slide 16

81. Introduce the term "stigma" to students. Explain that stigma is when someone views you in a negative way because you have a distinguishing characteristic or personal trait that's thought to be a disadvantage (a negative stereotype).
82. Tell students that, unfortunately, negative attitudes and beliefs toward people who have a mental health condition are common. One of the most important takeaways from this session is that struggling with mental health is nothing to be ashamed of.

## Dose of Knowledge

### A Pharmacists Teach Program

83. Explain that one way we can make talking about mental health feel normal is by helping ease the stigma surrounding it. We can work toward this by avoiding statements that make any aspect of our mental health seem like a negative thing.
84. Ask students to share through a head nod or shake: Would you ever make a negative comment about someone who needs to go to the doctor when he or she feels sick?
85. Acknowledge that everyone knows this would not be considered OK! It is important to exhibit the same empathy for our mental health and make sure our language and actions support mental health.
86. Then click once to project an example. Explain that instead of saying “I need a drink,” you could instead choose language that supports mental health. Phrases like “I feel stressed” or “\_\_\_\_\_ is making me anxious” are better word choices.
87. Click again and further explain that instead of using stigmatizing words or phrases like, “They are crazy, you could instead choose to say “They’re in a bad mood today” or “They’re having a hard time today.”
88. Then click a third time and implore the class to always remember that words matter and have power. Explain that when you say phrases like the ones on the slide, you add to mental health’s stigma. Not only can your words affect those who struggle with mental health, but they can impact everyone’s attitude toward mental health. We need to work together to eliminate this stigma.

### KEY TALKING POINTS:

- Stigma is when someone views you in a negative way because you have a distinguishing characteristic or personal trait that’s thought to be a disadvantage (a negative stereotype).
- Negative attitudes and beliefs toward people who have a mental health condition are common.
- Words matter. We need to work together to eliminate mental health’s stigma.

### Reflect

#### Slide 17

89. Facilitate students’ reflection on their learning by reviewing the bullets below. Click to project and read each bullet together:
  - Our health and well-being rely on our mental health, physical health, and social health.
  - Stress is how the brain and body respond to any demand or threat. When you experience stress, you may feel tense or nervous.
  - We can proactively and reactively manage the stress in our lives with a variety of strategies that focus on our physical, social, and mental health.
  - If stress, anxiety, or depression begin to impact our daily life, it is important to seek help from our many human resources.
  - Therapy and prescription medication are two examples of treatment that can help us manage anxiety and depression.
  - Illegally using drugs, misusing prescription medications, or drinking alcohol is not a healthy way to deal with stress, anxiety, or depression.
  - We should always advocate for our mental health *and* work together to eliminate the stigma surrounding it.
90. If time allows, provide students with the opportunity to ask questions.

## Extension Ideas

- Students can apply this lesson's mental health strategies and track which ones work best in different situations, so they have effective strategies to employ in the future.
- Present the Peer Pressure Digital Lesson found on the [DoseofKnowledge.com](https://DoseofKnowledge.com) site and lead a discussion around the connections between mental health and peer pressure.
- Students can research mental health resources in their community and creatively communicate these resources to their peers.

## National School Standards

### UNITED STATES

#### [National Health Standards](#)

- Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

#### [Common Core State Standards for English Language Arts](#)

- Writing
  - CCSS.ELA-LITERACY.CCRA.W.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to the task, purpose, and audience
- Speaking and Listening
  - CCSS.ELA-LITERACY.CCRA.SL.1: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing one's own clearly and persuasively
  - CCSS.ELA-LITERACY.CCRA.SL.2: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally

# Mental Health Strategies

I can take care of my mental health by...



For support with my mental health, I can turn to:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_