This presentation provides an overview of Generation Rx University messages designed to educate college students toward “safe medication practices for life.” We will focus on specific issues relating to opioid and stimulant medications, as well as some key general guidelines for safe medication-taking practices. Generation Rx University provides additional resources, including expanded activities and visual aids relating to each of these topics. We encourage you to check out these materials at GenerationRx.org/take-action/college and use them to educate your family, friends and peers about these important issues.

We consume more prescription medications in America than any other developed nation. These medications can help us live longer and healthier lives when used as directed by a health professional, but the dangers of misusing prescription drugs are real. Any medication can produce adverse health effects, and drug overdose is now our leading cause of accidental death. In fact, it’s estimated that more people under 50 years of age die from drug overdoses than from any other cause (accidental or otherwise). These overdoses include those due to illicit “street” drugs like heroin, but as we will learn, the misuse of prescription medications can become the gateway to the use of these substances as well.

So, prescription drug misuse is a national epidemic:
1. More than 6 million Americans age 12 and older have used a prescription drug nonmedically (i.e., they’ve misused this product) in the past month.
2. More than 5,500 Americans misuse a prescription medication for the first time every day.
3. Prescription drugs are among the most misused substances in the United States, more than all illicit “street” drugs combined except marijuana.
4. Among all age groups, the most commonly misused prescription drugs are opioid pain medications (e.g., Vicodin®, OxyContin®). On our college campuses, the misuse of prescription stimulants (e.g., Adderall®, Ritalin®) is also of significant concern. Finally, prescription sedatives (e.g., Xanax®, Valium®) are often misused as well. And when these medications are taken together or consumed with alcohol, the outcome can be tragic.

Misusing medication is:
1. Taking more than prescribed
2. Taking medication for a reason different than prescribed
3. Sharing or taking someone else’s medication

Regardless of intentions…
Some people misuse prescription drugs like opioid pain relievers, sedatives or stimulants. And we are here to consider important reasons why doing so can be harmful. But before we get started, what do you think? Is using a prescription medication that is not prescribed for you or in a different way than your health professional intended a risky decision?

**Note to Presenters:** Encourage participants to discuss this question with their nearby peers and then briefly share their ideas with the group. Inform participants that you’ll discuss different aspects of this question throughout the program.

Today’s program will include three modules. Each module consists of watching a short video, reviewing a few additional slides relating to the topic, and engaging in a brief discussion around some thought-provoking questions. Module topics include the dangers of misusing prescription opioid pain relievers and prescription stimulants, as well as a consideration of a few general safe medication practices.

Module 1 relates to one of the most serious public health dilemmas of our time. You are probably aware that America is in the throes of an opioid epidemic. A consideration of safe medication practices for opioid pain medications is essential to helping you avoid becoming a statistic in this epidemic.
Let’s begin by watching a short video that addresses risks inherent to the misuse of prescription opioids.

**Note to Presenters:** The video is posted online at: http://www.generationrx.org/take-action/college/. When you are ready to play the video, minimize this presentation. Once the video is complete, resume the presentation.

1. Am I putting myself at risk if I take prescription opioids and drink alcohol at the same time?

Let’s engage in a brief discussion about some of the points addressed in this video. Here is our first discussion question – “Am I putting myself at risk if I take prescription opioids and drink alcohol at the same time?” Based on the video and your own understanding of this issue, try developing a response to this question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss this question with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on slide 9.

All medications have side effects—and mixing alcohol with prescription drugs can sometimes enhance these negative effects.

1. For example, adverse side effects for prescription opioid pain medications include drowsiness, confusion, sedation, and slowed breathing. Drinking alcohol at the same time can actually worsen these potentially harmful effects.

2. In fact, many drug overdoses result from mixing prescription opioids with alcohol, prescription sedatives, or other drugs – which results in dangerously slow breathing and can cause death.
Here is our second discussion question – “Is a transition to using heroin common for those who misuse prescription opioids?” Based on the video and your own understanding of this issue, try developing a response to this question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on slide 11.

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It is well known that individuals who misuse prescription opioids sometimes transition to using heroin.

1. Recall from the video that because prescription opioids and heroin share similar chemistry, they also produce similar effects in the body. Because these effects are nearly identical, individuals who misuse and become dependent upon prescription opioids sometimes transition to using heroin in order to experience the same (or stronger) effect. In many cases, heroin may also be easier (and cheaper) to obtain. In fact, there has been a substantial increase in the use of heroin, with approximately 75% of users reporting misusing prescription opioids first.

2. Your brain doesn’t care if society labels a drug as an illicit street drug or a prescription drug. If the two drugs share similar chemistry, they’ll produce similar effects in the body, including increased risk for drug dependence and addiction. This relationship between prescription opioids and heroin is certainly troubling and serves as another reason to avoid misusing prescription opioids.

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Here is our last discussion question – “What other problems may arise from misusing prescription opioids?” Based on the video and your own understanding of this issue, try developing a response to this question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on slides 13-15.
Those who misuse prescription opioids sometimes spiral into drug dependency or addiction and the catastrophic health, legal and social consequences that can follow.

1. Health-related consequences: as noted in the video, the most tragic consequences of prescription drug misuse affect our health -- including drug overdose, which is the leading cause of accidental death in the U.S. Emergency department visits and drug addiction treatment admissions relating to medication misuse have also escalated.

2. Legal consequences: federal law prohibits the possession of the types of medications which are most often misused without a prescription.

3. Social consequences: the misuse of medications can affect your family and friends, your job, your education, your finances, and much more.

Note to Presenters: If participants have already identified these problems, consider simply summarizing the problems noted in the word cloud.

If you suspect someone has overdosed on any drug or alcohol, how can you take action?

1. First, call 9-1-1.

2. Second, move the individual to the recovery position (place the individual on their left side—with their arms under their head, bending their right leg to prevent them from rolling onto their stomach). This position is designed to prevent suffocation if the individual vomits.

3. Third, if available, administer naloxone. More information on naloxone will be provided in the next slide.

4. Lastly, stay with the individual until help arrives.

As noted in the video, in an overdose situation, opioids cause death through modifying the brain’s respiratory center—essentially, you stop breathing. When naloxone is administered, the ability for the opioid drug to stop respiration is blocked or prevented, and the individual resumes breathing.

1. Naloxone is available as an auto injector or as an intranasal spray.

2. Accessing naloxone by the general public varies from state to state. To find a naloxone distribution program in your area, consult the search engine labeled, “Overdose Prevention Program” at the following site: http://harmreduction.org/overdose-prevention/overdose-news/prescribe-naloxone/

3. It is critical to remember two precautions regarding the use of naloxone:
   A. Because of naloxone’s actions in the body, it will precipitate withdrawal symptoms (e.g., vomiting, combativeness or agitation) upon administration in an individual physically dependent on opioid drugs.
   B. If the patient actually overdosed on a non-opioid drug (prescription sedatives, alcohol, etc.), administering naloxone will have no effect, and it will not rescue breathing.

4. For more information on naloxone, visit “Learn/Helping Others” at GenerationRx.org.
We've discussed the impact of misusing prescription opioids. Now, let’s switch our attention to prescription stimulants, which are often misused on college campuses.

Let’s watch a video that addresses risks inherent to the misuse of prescription stimulants. Then, we’ll engage in a brief discussion.

*Note to Presenters:* The video is posted online at: http://www.generationrx.org/take-action/college/. When you are ready to play the video, minimize this presentation. Once the video is complete, resume this presentation.

Let’s engage in a brief discussion about some of the points addressed in this video. Here is the first discussion question - “Can the misuse of prescription stimulants improve your grades?” Based on the video and your own understanding of this issue, try developing a response to this question.

*Note to Presenters:* Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points is provided on slide 19.
Students who misuse prescription stimulants typically have lower grade-point averages, and they…

- Have fewer academic achievements
- Commit an illegal act that places several people at risk
- Violate codes of student conduct
- Risk losing scholarships and internships

Let’s consider the second discussion question – “When you ask someone for their medication, how do you think this request makes them feel?” Based on the video and your own understanding of this issue, try developing a response to this question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on slide 21.

If you ask someone to sell or share their medication, have you ever considered how that friend may perceive your request?

1. **By asking a friend (or even a stranger) for some of their medication, we put them in an incredibly vulnerable and uncomfortable position.** For example, they often perceive that request as you:
   - A. Using your friendship to obtain drugs. Your friend may begin questioning whether your friendship is solely based on you gaining access to their medication.
   - B. Disrespecting their health needs. Your friend has a legitimate need for their medication. If they give it to others, they may not be able to take their medication as instructed, and their health could jeopardized.
   - C. Putting them at risk for getting in trouble. Even if your friend simply gives (versus sells) you the medication, sharing medication is always illegal. Think about it—would a real friend ask someone to risk their future so that they could misuse a medication?

2. Be a good friend—if you feel that you need medication for a legitimate reason, talk with your healthcare provider.
Here is our last discussion question – “Is mixing alcohol with prescription stimulants a big deal?” Based on the video and your own understanding of this issue, try developing a response to this question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on slides 23-24.

**Module 2:**

Discuss in small groups:

1. Can the misuse of prescription stimulants improve your grades?
2. When you ask someone for their medication, how do you think this request makes them feel?
3. Is mixing alcohol with prescription stimulants a big deal?

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**Mixing alcohol and prescription stimulants sends the body mixed messages...**

Mixing alcohol with prescription stimulants is a big deal, because it sends the body mixed messages and increases your risk for dangerous levels of intoxication.

1. The orange text bubbles highlight effects produced by prescription stimulants; the blue text bubbles highlight effects produced by alcohol. Some individuals incorrectly perceive that these mixed messages cancel each other out. However, because alcohol and stimulants produce these effects through different mechanisms, these mixed messages don’t cancel each other out. Rather, the body is receiving all of these messages simultaneously. Thus, these mixed messages simply confuse the body and place it at risk for dangerous consequences.
   
   A. Note that alcohol reduces heart rate, whereas stimulants increase heart rate. These mixed messages may cause an irregular heart beat.
   
   B. In addition, alcohol slows messages between the body and brain, yet prescription stimulants activate part of the nervous system to trigger the fight or flight response. These mixed messages confuse the body and increase the risk for dangerous levels of alcohol intoxication, as well as other potential harms resulting from risky drinking.

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**Some prescription drugs aren’t as safe as you think...**

Recall from the video that the legal drug amphetamine (a prescription stimulant), and the illegal drug, methamphetamine, share similar chemical structures. As we discussed earlier, drugs with similar chemistry produce similar effects in the body. So misusing these substances may not be as safe as you think.

1. Adverse effects associated with prescription stimulant misuse include headaches, insomnia, increased heart rate, agitation, nausea, and anxiety.

2. In addition, because methamphetamine and amphetamine both activate the brain’s reward pathway (think back to the “Prescription Opioid” video), misuse of either drug increases the risk of drug dependency and addiction.
Slide 25

Module 3: Safe Medication Practices

We've discussed the impact of misusing prescription opioids and stimulants. Now, let's discuss how we can avoid the potential consequences of prescription drug misuse by using medications safely.

Slide 26

Video: Safe Medication Practices

Let's watch a video that outlines safe medication practices. Then, we'll engage in a brief discussion.

Note to Presenters: The video is posted online at: http://www.generationrx.org/take-action/college/. When you are ready to play the video, minimize this presentation. Once the video is complete, resume this presentation.

Slide 27

Module 3: Safe Medication Practices

Discuss in small groups:
1. If you have a legitimate prescription, how should you respond if your condition isn't improving? How should you store or dispose of the medication?

Let's engage in a brief discussion about some of the points addressed in this video. Consider this first discussion question - “If you have a legitimate prescription, how should you respond if it isn’t working? How should you store or dispose of the medication?” Based on the video and your own understanding of this issue, try developing a response to this question.

Note to Presenters: Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on Slides 28-31.
If you are taking a medication as instructed and your condition isn’t improving—talk with your healthcare provider.

1. When prescribed any medication—be your own advocate. Ensure you understand the reason for the medication and the dosing instructions. Don’t hesitate to ask questions when meeting with your healthcare providers.

2. Some medications, like prescription sedatives (e.g., Xanax® and Valium®) even contain special “black box” warnings in the package insert materials required by the Food and Drug Administration. For prescription sedatives, this warning informs patients that breathing may be slowed or it may stop altogether if they take prescription sedatives with prescription opioids, or with other drugs that depress the nervous system (like alcohol). As we discussed earlier, many drug overdoses result from mixing prescription opioids, alcohol, prescription sedatives, or other drugs.

3. As highlighted in our videos, there is a risk for dependency and addiction with some prescription drugs, even when taken as instructed. Therefore, avoid tendencies to self-diagnose and self-prescribe, which may increase your risk for experiencing these detrimental outcomes.

4. In addition, if a friend or family members asks for some of your sedative medication, encourage them to seek professional help from a healthcare provider. There is a prescription for a reason—these medications are only deemed safe and effective when taken under the supervision of a healthcare provider.

**Note to Presenters:** If needed, below is additional information on prescription sedatives: Prescription drugs like Xanax® and Valium® are members of the “Benzodiazepine” drug class. In the body, these drugs function as CNS depressants. That is, they act to inhibit nervous system function and slow messages between the brain and body. Thus, physicians may prescribe prescription sedatives to treat anxiety or panic disorder. However, it’s critical to take these medications as instructed and only by the individual for whom the medication was prescribed. Adverse effects for prescription sedatives include decreased heart rate and blood pressure, impaired coordination and judgement, confusion, sedation, and slowed breathing. In fact, the FDA requires a “black box” warning for all benzodiazepine drugs related to these adverse effects. A “black box” warning constitutes FDA’s strongest cautionary information for patients.

Remember that most people who misuse prescription drugs get them from family members or friends. Help keep those around you safe by storing your medications in lockable spaces.

1. Store prescription drugs in secure locations such as lock-boxes, medication safes, or other lockable spaces.

2. Avoid storage places which children and others can easily access, such as purses, backpacks, un-locked drawers, nightstands, or counters.

Similarly, it is important to safely dispose of your medications when they are no longer needed. The best options for safe disposal include:

**Option #1:** place the medication in a drug drop box. To find a drop box in your area, visit: rxdrugdropbox.org

**Option #2:** take advantage of community drug take-back programs that allow the public to bring unused drugs to a central location for proper disposal. Call your local law enforcement agency or ask your pharmacist to see if a take-back program is available in your community.
If needed, safely dispose of medications at home:

**STEP 1:** Remove the pills from the original container and mix them with an undesirable substance such as used coffee grounds or kitty litter.

**STEP 2:** Throw away the sealed mixture into the trash.

**STEP 3:** Remove the prescription label and dispose of the empty bottle.

If a drug drop box or a drug take-back event is not available, you can dispose of the medication at home. In general, you should not flush medications down a toilet or drain; however, the FDA still recommends that certain drugs should be disposed by flushing (for a list, visit: www.fda.gov).

**Option #3:** dispose of the medication at home (steps illustrated on this slide).

Before completing these steps, we encourage you to follow any disposal instructions on the prescription label or provided patient information sheets.

If disposal instructions are not given, complete these three steps:

- **Step 1:** Remove the pills from the original container and mix them with an undesirable substance such as used coffee grounds or kitty litter.
- **Step 2:** Throw away the sealed mixture into the trash.
- **Step 3:** Remove the prescription label and dispose of the empty bottle.

Here is our second discussion question – “How do you say “no” if invited to misuse? Or, how do you say “no” if someone asks for your medication?” Based on the video and your own understanding of this issue, try developing a response to this question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on Slide 33.

If you’re invited to misuse any prescription medication, how do you turn down this invitation? Alternatively, if someone requests that you share or sell your prescription medication, how can you say no? Three examples are listed on this slide. General approaches including giving a reason, leaving the situation, and suggesting an alternative. In addition, you can simply say “no” – by doing so, you become one of the majority of college students who use medications safely.

**Note to Presenters:** Some strategies are provided on this slide – encourage participants to share other ideas.
Let’s consider the third discussion question – “What are positive alternatives to misusing medication?” Based on the video and your own understanding of this issue, try developing a response to this question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on Slide 35.

Some people misuse prescription medications as a “quick fix” to deal with the pressures and demands of their lives. However, they are only a “quick fix” – life will continually present demands, stresses, and pressures. Learning healthy, positive ways to deal with stress, achieve academic success, or have fun safely is essential. Isn’t college a time when you should cultivate sustainable habits for future professional success? Consider the examples in this slide. What are other positive alternatives to misusing medications?

**Note to Presenters:** Encourage participants to share their ideas. Alternatives in green provide sustainable approaches to studying.

Given our discussions throughout this program, let’s consider our last discussion question - . Based on the video and your own understanding of this issue, try developing a response to each question.

**Note to Presenters:** Encourage participants to share their thoughts aloud or discuss these questions with their nearby peers (with a partner or in a small group). Potential responses with additional talking points are provided on Slide 37.
Prescription medications can help us live longer and healthier lives, but any medication has the potential to do harm – especially when misused. The misuse of prescription medications is one of our country’s most pressing public health problems, with drug overdose being our leading cause of accidental death. We can prevent prescription drug misuse by engaging in safe medication practices for life. This includes only using medications as directed by a health professional, not sharing or taking someone else’s medication, securing and safely disposing of medications, and lastly, by being a good role model. This includes modeling these practices at home, and encouraging your family and friends to do the same.

That concludes our program. Let’s wrap-up by discussing where you can find help and learn more about these issues.

If you need help with regard to your misuse of medications, we encourage you to use the campus resources identified on this slide. Visit your student health or wellness center, contact the campus recovery program (if available), utilize campus counseling services, or talk with your advisor. The first step to solving any problem like alcohol or drug misuse may be reaching out for help.

*Note to Presenters:* Prior to the presentation, we encourage you to customize this slide to show the resources available at your university. Discuss each resource with participants, and consider providing this information to participants through email or other digital platforms.

Observing safe medication practices is important for people of all ages, and the misuse of prescription drugs underlies one of our most serious public health dilemmas. Protect yourself by observing “safe medication practices for life,” and share these important messages with others.

This may consist of discussing Generation Rx messages with your friends and family, or sharing them through peer-to-peer education. Visit our website, GenerationRx.org, to access free, ready-to-use resources designed to educate college students (or people of any age). You could present this program or a different activity. You could also present similar educational programs to other audiences, like teens, using our age-appropriate resources.
Does anyone have any questions or comments?

1. Before we end, we encourage you to stay connected by following us @TheGenRx on Twitter and Facebook.

2. Also, we encourage you to take a survey evaluating today’s program on GenerationRx.org. You can find a link to this survey at the bottom of the home page. We value your feedback to help us assess the impact of this work and continually improve Generation Rx materials.

Note to Presenters: We encourage you, as the presenter, to also complete this survey. Thank you for advocating safe medication practices in your community! We also encourage you to share your experience with us. Consider submitting your tips and personal experiences about how you advocate safe medication practices at home or in your community. To do this, visit the ‘Contact’ section of GenerationRx.org. In this same section, you can also submit any questions you may have regarding how to use these educational resources.

References:


