



Fentanyl Education for Students

<https://www.birdielight.org/>

Fentanyl is the number one cause of death in 18-45 year-old Americans.

We're going to change that.

We have a story to tell, and a promise to make. We've made that promise to Eli Weinstock and to our grieving hearts: a promise to build something good, true, and honest atop this devastated landscape.

OUR job is to spread awareness around the dangers of Fentanyl in drugs and distribute tools to prevent overdose, so **YOU** have the power to save your own life.

Beth Weinstock M.D.
& Olivia Weinstock



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Eli's Story

We have a story to tell, and a promise to make. We've made that promise to Eli Weinstock and to our grieving hearts: a promise to build something good and true atop this devastated landscape.

In March of 2021, our beloved son, brother, grandson, cousin, and friend Eli Weinstock collapsed and died at his home in Washington D.C. He was twenty years old, a sophomore at American University, an intern at the Spanish Education Development Center, and an aficionado of hip-hop, snowboarding, and Quentin Tarantino films.

The world lost a bright and playful light— Eli was quick to smile, quick to hug his siblings, and quick to adapt to new situations and friends. He often drew a crowd. He was on his way to a meaningful life of love and connection.

Three months after his death, the coroner reported that two substances were identified in his body; the first mentioned was Kratom, a legal herbal supplement found in CBD stores and some head shops, and second was Fentanyl, a synthetic opioid implicated in over 75% of unintentional overdose deaths in 2021. Eli was unaware that Fentanyl was in what he took. He did not intend to die. Nearly 108,000 people died from an overdose in the last twelve months alone.

I repeat: 108,000 people. In. One. Year.

To that end, we'd like you to meet BirdieLight, an organization with big-sky dreams, one of which is to place fentanyl education in the hands of every high-school and college student in America.

CDC Healthy Schools

BirdieLight's *Fentanyl Education for Students* helps schools and community organizations educate and prepare young people to make safer decisions. It meets the requirements of [Ohio House Bill 367](#) (Opioid Abuse Prevention) and is aligned to the [National Health Education Standards](#) for Grades 9–12.

Standard 1: Concept Comprehension

- 1.12.5: Propose ways to reduce or prevent injuries and health problems. (Lessons 3,4)
- 1.12.8: Analyze personal susceptibility to injury, illness, or death if engaging in unhealthy behaviors. (Lessons 2,3,4)
- 1.12.9: Analyze the potential severity of injury or illness if engaging in unhealthy behaviors. (Lessons 1–4)

Standard 5: Use of Decision-Making Skills

- 5.12.2: Determine the value of applying a thoughtful decision-making process in health-related situations. (Lesson 3,4)

Standard 7: Avoid or Reduce Health Risks

- 7.12.1: Analyze the role of individual responsibility for enhancing health (Lesson 4)
- 7.12.2: Demonstrate a variety of healthy practices and behaviors that will maintain or improve the health of self and others (Lesson 1,4)
- 7.12.3: Demonstrate a variety of behaviors to avoid or reduce health risks to self and others (Lesson 1,4)

Standard 8: Advocacy

- 8.12.1: Utilize accurate peer and societal norms to formulate a health-enhancing message (Lessons 1, 2, 4)
- 8.12.2: Demonstrate how to influence and support others to make positive health choices (Lesson 4)
- 8.12.3: Work cooperatively as an advocate for improving personal, family, and community health (Lesson 2, 4)
- 8.12.4: Adapt health messages and communication techniques to a specific target audience (Lesson 4)

Filling the Knowledge Gap

The Mission of BirdieLight is to educate young people about the dangers of Fentanyl and provide tools to enable them to proactively manage risk.

Nearly 75% of opioid-related fatalities are caused by fentanyl.

What is it?

Fentanyl is a synthetic opioid that is 50-100 times stronger than morphine.

Pharmaceutical fentanyl was originally developed for procedural anesthetic/pain management for cancer patients, and is still used legitimately at small doses (on the level of micrograms) in hospital settings. However, fentanyl is also commonly manufactured illegally and mixed illicitly with other opioids (oxycodone and heroin), stimulants such as cocaine and methamphetamine, benzodiazepines (such as counterfeit Xanax), other stimulants (such as counterfeit Adderall) and designer drugs such as Molly (ecstasy). This drug adulteration with fentanyl occurs on the level of milligrams –1000x stronger than legal and regulated fentanyl.

Why is it being added to recreational drugs?

Fentanyl increases the potency and addictive potential when it is added to other drugs; it is also cheap to manufacture and distribute. Most fentanyl is manufactured in clandestine labs and smuggled across our border, although some of the pill manufacturing/pressing and adulteration happens in the U.S. Most people who take opioids on a daily basis (opioid pills or heroin) have built up some tolerance to opioids, but even in this scenario a small amount of fentanyl can be deadly. In the last five years, many who are exposed to unsuspected fentanyl are unaccustomed to opioid use, and often aren't intending to take an opioid at all.

Why is it so dangerous?

Similar to other opioids, fentanyl can produce effects such as euphoria, pain relief, sedation, drowsiness, dizziness, vomiting, and respiratory depression, depending on the

dose and an individual's opioid tolerance. Because of its potency, very small amounts of fentanyl can quickly suppress a person's respiratory drive.

Where is illicit fentanyl found?

Counterfeit Pills

Counterfeit pills are a huge problem; fentanyl is found in fake oxycodone, fake Xanax, fake Adderall, and many others. These pills are stamped and shaped to look like an actual pill from a pharmacy, and it is nearly impossible to tell the difference.

Heroin

Fentanyl is more potent than and commonly mixed with heroin.

Methamphetamine

Methamphetamine is a stimulant, as is cocaine, but often these stimulants are cut with fentanyl; illicit drug manufacturers do this to both increase the euphoric sensation of the combination and to save money, working in labs that aren't following any standards to create safe ratios of each drug.

Ecstasy or MDMA- "Molly"

Molly is often used at music festivals, concerts, and parties, and acts both as a stimulant and hallucinogenic. However, ecstasy is rarely pure MDMA; many drug suppliers mix the MDMA with fentanyl or methamphetamine or other opioids, and then add red, yellow or blue food coloring to form a pill sold as MDMA, or ecstasy. Or they mix these drugs and sell it as (fake) Xanax.

Cocaine

Powder and crystal/rock cocaine can also be adulterated with fentanyl; current estimates in the U.S. show that anywhere from 10-20% of cocaine products are contaminated with fentanyl.

Why is this important?

“This Christmas, we’ll have one empty seat around the Monopoly board. The devastated landscape my family now inhabits is hard to comprehend, **but we have hope.**”

– Beth Weinstock M.D.

- Fentanyl is 50– 100 times more powerful than morphine.
- Fentanyl can be lethal in a small dose, and when only ingested once.
- Fentanyl can be easily added to nearly all recreational drugs, mostly pills and powders.
- The fastest-rising age demographic for fentanyl-related deaths is age 15–25
- Fatalities are increasing rapidly within communities of color; deaths among Black, American Indian, and Alaska Native communities increased the fastest in the twelve months from 2020 to 2021.
- The leading cause of accidental death for all Americans age 18–45 is currently fentanyl ingestion.

Let's Get Young People Closer to Safe

Test it

First, think hard about whether or not to ingest any substance that could contain fentanyl. Second, if you opt to move forward with ingestion, **use a tool** –a test strip—to make sure the substance does not contain fentanyl. Always throw away any drug that tests positive. Instructions on how to use a test strip are included in this curriculum.

Tell someone

After testing the substance, make an informed choice on whether or not to proceed with ingestion. If you decide to move forward, tell a friend first what you're taking. **NEVER EVER USE ANY SUBSTANCE ALONE.** This friend – your new “designated driver” – should be sober, so that they are able to help you in the event of an emergency.

Narcan

Make sure there is Narcan or a form of naloxone in the room. Narcan is a life-saving nasal spray that can reverse the effect of an overdose. It's easy to use and can be administered quickly to prevent death or serious injuries from fentanyl and other opioid ingestions..

Lesson One → Understanding Opioids


Overview

In this first lesson, students will achieve a basic understanding of the synthetic opioid fentanyl, and have the opportunity to distinguish between pharmaceutical fentanyl (often used in routine medical care) vs illicit/illegal fentanyl.

Outcomes

- Students will be able to place fentanyl on the opioid spectrum
- Students will be on their way to understanding how to avoid fentanyl.

Resources

- Slide Show: [BirdieLight Lesson One](#)
- Video: [Seven Days: A Film About The Opioid Crisis in Arkansas | PBS](#)
- Video:  [Breaking Down the Stigma of Addiction: A Witness' Story Through Art](#)

Lesson Plan

In this first lesson, we are going to learn about the synthetic opioid fentanyl. It's important that we define and identify the threat, before we move on to the next lesson where we will learn about the "why"; why illegal fentanyl has killed, and continues to kill, so many young people in our country.

- Review images and chemical structure of the synthetic opioid fentanyl.
- Brief overview of opioids, including their legitimate use for pain control and the different types of opioids (legal vs illegal).
- Discussion: How can opioids help us? How can they harm us?
- Define the difference in legal pharmaceutical drugs that are regulated, and illicit drugs that escape regulation.
- Discussion: What happens in your body when you take an opioid?
- Discussion: What happens when you ingest too much of an opioid?
- Discussion: What makes an opioid habit-forming?
- Common scenarios of opioid ingestion.

Closure

- We learned about the synthetic opioid fentanyl, and identified the difference between legitimate hospital/medical use of fentanyl, and illicit or illegal fentanyl.
- We learned about opioids as a class of drugs, and how they affect your body.

Lesson One → Understanding Opioids

Teaching Steps

Activity 1: BirdieLight Slide Show & Review Activity

- **Slide 1:** Today we will learn the basics about opiate chemicals and the vocabulary people use to discuss them.
- **Slide 2:** What is an Opiate? Is an Opioid different?
 - Opiates are a class of drugs naturally found in the poppy plant. Examples include morphine, codeine, and heroin. Opioids are similar but are either partly or completely manufactured in a chemical lab; examples include oxycodone, hydrocodone, and particularly fentanyl, which is entirely synthetic and can be made without the poppy plant.
 - Vocabulary alert! These terms, **opioid or opiate**, are now commonly used interchangeably! So don't worry which word you use, just know that all of these drugs resemble each other chemically, and all of them can block pain signals between the body and brain.
 - What they all have in common is the ability to bind to a receptor in your brain called the **mu-receptor**
- **Slide 3:** Here, the cow is the Mu-receptor in your brain (get it?) and the grass is the opioid (such as fentanyl, morphine, heroin, oxycodone, and hydrocodone) binding to the receptor.
- **Slide 4: What happens in your body when you ingest an opioid?** Once an opioid binds to the mu-receptor in your brain, several things can happen, and can often happen in just a matter of seconds, depending on dose and mechanism of ingestion.
 - First, opioids can control **pain**. They are used frequently in hospitals and medical settings at manageable doses to control pain during procedures and surgeries.
 - Second, opioids can create a **euphoria**, defined as an intense feeling of

unrealistic well-being or happiness. This euphoria is the reason opioids are sought out and sold in large quantities illegally. With time, for some individuals, this euphoria-seeking can lead to problematic drug use and/or an opioid use disorder (addiction).

- Third, because these chemicals are so powerful—particularly fentanyl— the euphoria can be followed by a **loss of consciousness** (passing out or fainting). If the dose of the opioid was powerful enough, this fainting can quickly be followed by a **loss of the drive to breathe**, or even **death**.

So What is Fentanyl?

- **Slide 5: Chemical Structure:** basically fentanyl is just carbon and nitrogen and oxygen molecules that look like this. More importantly, a lot of these molecules together form a white powder that looks like the stuff **on the tip of this pencil**. The small amount of fentanyl you see here, if ingested, can be fatal.
 - Fentanyl is synthetic, meaning it has to be made in a chemical lab. It can't be grown in a field like morphine and heroin, which are derived directly from the poppy plant. But most other opioids, such as heroin and morphine, have a somewhat similar structure.
- **Slide 6 Legal vs Illegal:** When used in a controlled setting, and prescribed by a doctor, opioids can be an important part of medical care. They allow people in severe pain to live more comfortable lives, and they allow procedures to get done under light sedation. However, even legal opioids can be problematic; you will learn in the next lesson how legally-prescribed opioids led to an American addiction crisis.
 - **Legal:** Because fentanyl and other opioids are often used for medical reasons, it is legal for doctors and pharmacists to prescribe and dispense these medicines. Fentanyl in particular is prescribed usually on the level of MICROGRAMS. Other legal opioids include hydrocodone, morphine, and oxycodone.
 - **Illegal:** some opioids are manufactured without any regulations or oversight. These are distributed through drug supply chains and then sold in a variety

of ways, including via social media channels such as Snapchat or Tiktok. This version of fentanyl may be distributed in doses as high as MILLIGRAMS, one thousand times stronger than what a doctor would prescribe. Other illegal opioids include heroin, as well as opioids within counterfeit pills that have been manufactured falsely to look like legitimate pills that come from the pharmacy.

Help vs Harm?

Help – some opioids (manufactured in a controlled setting and regulated) are the most effective medications we have to relieve pain related to surgery, cancer, and trauma such as bone fractures.

Harm – first, both legal and illegal opioids can be habit-forming and lead to a substance use disorder. Once a person has a problematic addiction, a complex series of life disruptions can occur, often including ill health, job loss, family disruption, and arrest and incarceration. At higher doses, opioids can be deadly.

- **What is Addiction?**

Addiction is a neuropsychological disorder characterized by a persistent desire to engage in a behavior, despite ongoing negative consequences. This compulsion creates a state of physical and psychological dependence on a substance.

- **Slide 7:** Addiction is a chronic dysfunction of the brain – this dysfunction involves the reward and memory area of the brain. When a person takes an opioid, the pleasure chemical dopamine is released; sometimes, depending on many circumstances, the brain will continue to seek out this pleasure which often leads to increasingly more chaotic behavior to obtain the drug.

- The person using the drug often can't recognize how disruptive the drug-reward cycle has become to their life.
- A person who regularly uses certain drugs, particularly opioids, may start to feel flat, without motivation, and/or depressed, and is unable to enjoy things like they used to. Because the person needs to keep taking the opioid, often at higher doses, to experience any level of reward, this only makes the problem worse. The person is caught in a vicious cycle, needing to take larger amounts of the drug to produce a familiar high, an effect known as **tolerance**, and also to prevent themselves from feeling ill from opioid withdrawal.
- Opioids are ingested in a variety of ways:
 - In medical settings (hospitals, procedures) and when given by a pharmacist:
 - IV (intravenous) - for pain control and sedation
 - Pills or patches - for pain control such as cancer pain, after surgeries, after breaking a bone, or when needing a minor procedure
 - In the unregulated drug world
 - Heroin - intravenous, snorting, smoking
 - Counterfeit oxycodone, hydrocodone pills - swallowed or snorted
 - Fentanyl- pills/powders, liquid within heroin and others.



- 1. What does it mean to say fentanyl is a “synthetic” opioid?**
- 2. What are legitimate and legal uses of fentanyl?**
- 3. Fentanyl is ___ times more powerful than morphine.**
- 4. What is the immediate effect of illicit fentanyl on the brain?**
- 5. Why is fentanyl dangerous? (circle the correct answer)**
 - a. It can suppress a person’s drive to breath
 - b. It can cause a loss of consciousness
 - c. Impairment occurs so rapidly that a person can’t call for help.
 - d. All of the above
- 6. _____ is a chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual’s life experiences.**

If you or someone you know is at risk for a fentanyl exposure, please contact a trusted adult.

Additional Questions for Discussion:

- If you broke your ankle today, and the staff at the hospital wanted to give you fentanyl to help with pain while they fixed the ankle problem, would you be nervous about the fentanyl? Why or why not?
- Addiction is considered a “disease” and is often described as “hijacking” or changing the brain. This is a scary concept – can a chemical actually take over your brain and leave you no choice but to continue using the substance? Discuss if you agree or disagree. If you disagree, why do you think it is so hard for people to stop using opioids?

Lesson Two → How Did We Get Here?

Overview

In this second lesson, students will learn that the synthetic opioid fentanyl has killed many young people in our country, and then explore the question “Why is this happening”?

This lesson will include a brief history of the opioid epidemic in our country, followed by a more focused discussion of why fentanyl is commonly in the news today.

Outcomes



- Students will be able to place the fentanyl epidemic into the historical context of the U.S. opioid epidemic
- Students will be on their way to understanding the scope of the current crisis .


Resources

- Movie: ABC’s “Poisoned: America’s Fentanyl Crisis” (3 part series)
- Slide Show: [BirdieLight Lesson Two](#)
- Additional Reading: [Overdose Deaths Continue Rising, With Fentanyl and Meth Key Culprits – The New York Times](#)
- Additional Reading: [Our son’s murder by fentanyl will not be the last, but the risks can be lessened: Beth Weinstock M.D. – cleveland.com](#)
- Additional Reading: [West Virginia’s Opioid Crisis: A Journey of Despair, Love and Loss – The New York Times](#)

Lesson Plan

In this second lesson, we will show a brief overview of the American opioid crisis, and how the synthetic opioid fentanyl fits into a broader historical context.

- Activity 1: Powerpoint Data Slides.
- Activity 2: Presentation of ABC’s “Poisoned: America’s Fentanyl Crisis”
 - Part 1:(14:56)  [Poisoned: America's Fentanyl Crisis | ABCNL](#)
 - Part 2:(13:53)  [Poisoned: America's Fentanyl Crisis | ABCNL](#)

- Part 3: (13:10)  Poisoned: America's Fentanyl Crisis | ABCNL
- Discussion: many famous people have died due to opioid ingestion. Let's look more closely at what happened to some beloved American musicians and performers (Lil Peep, Mac Miller, Michael K Williams, Prince, Tom Petty)
- Discussion: who do you think are the key culprits in the opioid epidemic? The victims?
- Closer-to-Safe Reflection

Closure

- We learned about the American opioid crisis, and can identify a timeline of each stage of the opioid crisis. We made comparisons to other public health crises, which helped us understand the scale of the problem.
- We learned about the role fentanyl has played in accelerating this current public health crisis.

Lesson Two → How Did We Get Here?

Teaching Steps

Activity 1: BirdieLight (Slide Show & Review Activity)

- **Slide 1:** Today we will learn the history of the opioid crisis in America, and its effect on families and communities.
- **Slide 2:** Headline from New York Times photojournalism piece “Despair, Love, and Loss: A Journey Inside West Virginia’s Opioid Crisis.” Full article [here](#) and can be distributed to students: [NYT](#). (Warning: images of drug use are graphic)
- Let’s start at the beginning: what do people mean when they use the term **Opioid Crisis** in America? It’s easiest to think of this historic public health crisis in three stages that stretch over two decades:
- **Slide 3:** Rise in Opioid Overdose Deaths in America
 - **Stage I: Prescription Opioids**
 - In the 1990’s, the number of opioid prescriptions written by physicians increased due to two factors.
 - First, increased pressure to more aggressively treat pain. Pain was being described then as the “fifth vital sign” (in addition to blood pressure, pulse etc) and doctors were advised that it was inhumane to ignore a patient’s pain.
 - Second, pharmaceutical companies took advantage of this new way of thinking by developing new opioids that they marketed as “non-addictive”, such as oxycontin. That was a lie, and they were aware that they were lying. They marketed their new product aggressively to physicians, and this misrepresentation led to more and more opioid prescriptions given to patients.

- **Stage 2: Heroin**

- Around 2005–2007, physicians and regulators began to realize the consequences of so many opioid prescriptions, and they cut back on the number of prescriptions they were willing to write. But look at this scenario:
- Joe Patient is used to obtaining 60 tablets of oxycontin from his doctor every month.
- Joe Patient's doctor gets nervous about new regulations on prescribing and she is concerned about the headlines she reads about increased addiction rates. She stops prescribing Joe's oxycontin.
- What can Joe do? Joe Patient is addicted to opioids, and now his body and altered brain chemistry must find an alternative.
- Joe Patient finds the cheapest and most available opioid, even though it's illegal – usually Heroin

- **Stage 3: Synthetic Opioids (Fentanyl)**

- Around 2013, the synthetic opioid fentanyl was increasingly found in heroin.
- Why did this occur? Fentanyl was cheap to make and more powerful—a small amount goes a long way. Some people addicted to heroin then also became addicted to the more-powerful fentanyl.
- But why was fentanyl then increasingly placed in other substances? By 2015, fentanyl was being found in counterfeit pills, cocaine, methamphetamine, and ecstasy, in addition to heroin.

Currently about 20% of unregulated counterfeit pills will contain fentanyl.

The theory is that, because fentanyl is cheap to make and creates such a powerful euphoria, more customers will return to buy more pills and powders. But it's not clear why an illegal drug manufacturer would be okay with so many people dying.

Why is this in the news so much? Let's talk numbers.

- **Slide 4:** Many pharmaceutical companies and even pharmacies have been fined or charged with criminal action, due to either their aggressive marketing of prescription opioids or their negligence in over-distributing or over-prescribing.
- **Slide 5:** We do have a big problem. See that gray line heading up the graph- that shows deaths increasing rapidly since 2015 from fentanyl alone: not other opioids, just fentanyl!
 - Current data show that the total number of drug-related fatalities was about **108,000** people for 2021 alone; that's the highest number ever recorded on American soil for drug-related fatalities in a twelve-month period. And over **75%** of those deaths were due to fentanyl.
 - Let's look at two historic comparisons, to get a handle on this **108,000** number:
- **Slide 6:** Vietnam War Memorial Wall - 58,000 lives were lost in the Vietnam War, but that was for an entire war that lasted ten years.
- **Slide 7:** AIDS Epidemic - at the peak of the AIDS epidemic, in 1995, we lost 42,000 people in one year. Compare that to 2015 when we had already lost over 40,000 people to drug-related fatalities, and it has climbed from there to the current 108,000 in 2021.

Who is dying?




The fastest rising age group for these deaths are in young people age 15–25. The fastest rising demographic is in Black and Latinx communities. Also American Indian and Alaskan Natives have extremely high rates of fentanyl-related fatalities.

- **Slide 8:** Faces of young people, famous and otherwise, who have died from fentanyl ingestion (Prince, Lil Peep, Mac Miller)
 - Lil Peep took a “Xanax” (counterfeit) that contained a lethal dose of fentanyl.
 - Mac Miller snorted a powder that unknowingly contained a lethal dose of fentanyl.
 - Prince was taking prescription pain pills on a regular basis, but on the day of his death was given a counterfeit “oxycodone” that contained a lethal dose of fentanyl.

Most people who die from fentanyl ingestion aren’t aware they are taking fentanyl!

They often believe they are ingesting something else –oxycodone, Xanax, adderall, cocaine, ecstasy, methamphetamine, heroin – but the fentanyl has been hidden in that substance. Sometimes, fentanyl is ALL that is present in the substance.

Optional Activity 2: Presentation of ABC’s “Poisoned: America’s Fentanyl Crisis”

- Part 1: (14:56)  Poisoned: America's Fentanyl Crisis | ABCNL
- Part 2: (13:53)  Poisoned: America's Fentanyl Crisis | ABCNL
- Part 3: (13:10)  Poisoned: America's Fentanyl Crisis | ABCNL

- 1. What happened around 2015 to worsen the opioid statistics in the United States?**
- 2. In the early 2000's, who marketed certain opioids as "non-addictive"?**
- 3. If you became addicted to a prescription opioid in the early 2000's, what illegal opioid could you seek out if your prescription ran out?**
- 4. What is the fastest rising age demographic for fentanyl-related fatalities?**
 - a. Age 25-35
 - b. Age 5-15
 - c. Age 15-25
 - d. Age 45-65
- 5. Wars and public health epidemics tend to target young people. Which of these crises killed the most Americans in a twelve-month period?**
 - a. Vietnam War
 - b. The HIV/AIDS crisis
 - c. World War I
 - d. The Fentanyl Epidemic

If you or someone you know is at risk for a fentanyl exposure, please contact a trusted adult.

Lesson Three → Where is Fentanyl? How Does it Kill People?

Overview

In this third lesson, students will learn about the variety of illegal substances that can contain fentanyl. They will learn to recognize counterfeit pills, including oxycodone, Xanax, Ecstasy/Molly, and Adderall.

Outcomes

- Students will be able to identify the range of substances that can potentially contain a lethal dose of fentanyl.
- Students will gain an understanding of how pills and powders are adulterated with fentanyl.

Resources

- Slide Show: [BirdieLight Lesson Three](#)
- Website: DEA Campaign: [One Pill Can Kill](#)

Lesson Plan

In this third lesson, we will identify and visualize specific pills that can be adulterated with fentanyl, and discuss powders and other drugs as well. Today, we will learn how illegal drug manufacturers create pills containing fentanyl, and we will practice recognition of the synthetic opioid fentanyl in a variety of scenarios.

- Activity 1: BirdieLight Powerpoint slides
- Activity 2: Brief educational video:
<https://www.getsmartaboutdrugs.gov/illicit-fentanyl-psa>
- Discussion: Counterfeit pills are made in a pill press to look like the real pills you would get from a pharmacist or doctor. Discuss how deceptive this is and how it capitalizes on our trust of the medical and pharmaceutical industries.
- How would you rate your confidence for identifying the types of pills that can be counterfeit and/or laced with fentanyl? On a scale of 1-5, with 5 being extremely confident?

Closure

- We learned about individual substances that can contain a deadly dose of fentanyl
- We learned how difficult it can be, or even impossible, to tell the difference between a counterfeit or legitimate pill.

Lesson Three →Where is Fentanyl? How Does it Kill People?

Teaching Steps

Activity 1: BirdieLight (Slide Show & Review Activity)

- Today, we will learn about individual substances in the current illegal drug market that have been found to contain fentanyl.
- Fentanyl is a white powder; it can't be smelled or tasted, and it is impossible to predict which pills or powders can have fentanyl in them.
- Most of the time, a drug dealer doesn't have a complete understanding of the contents of the pills or powders that he/she is selling. Often, the person who made the pill or packaged the powder doesn't know how much fentanyl is being placed within a batch of drugs

Keep This in Mind

The drug world is mostly chaotic, and anyone, particularly a drug dealer, who says they 'know' exactly what is contained within a pill or powder is probably mistaken.

Any pill or powder purchased on Snapchat, TikTok, Instagram has a high likelihood of fentanyl contamination.

- **Slide 2:** Image of Pill Press with small bags of pills displayed. The pill manufacturer/distributor purchases a pill press, then stamps the pills to look similar to what one can get from a legitimate pharmacy, then sells them on the illegal drug market

- **Slide 3:** This counterfeit Adderall on the left side of the slide has been pressed and stamped to look exactly like the real Adderall on the right side.
 - Real or authentic Adderall is often used to treat Attention Deficit Disorder (ADD) and is a safe and regulated medication.
 - The illegal and unregulated pill on the left will most likely have some chemical fillers in it, and **about 20% of the time will contain a lethal dose of fentanyl in it.**
- **Slide 4:** This counterfeit oxycodone on the left has also been stamped to look exactly like real oxycodone on right.
 - Real or authentic oxycodone is used to treat pain, and is composed of pure oxycodone.
 - The fake pill on the right is most likely a mix of oxycodone, chemical contamination, and **about 20% of the time will contain fentanyl.**
- **Slide 5:** This counterfeit or fake Xanax is shown on the left, the real Xanax is on the right.
 - Real Xanax is often prescribed by healthcare providers to treat anxiety (and can be habit-forming), but is composed of pure Xanax and rarely harms a person when taken as directed.
 - The pill on the left may contain some Xanax, but **about 20% of the time will contain a potentially-lethal dose of fentanyl.**
- **Slide 6:** Powders are tough! There's no way to tell by sight, smell, or taste if a white powder such as cocaine contains fentanyl. **Around 15-18% of the cocaine in the U.S. currently contains fentanyl.**
- **Slide 7:** Molly, also known as ecstasy, is often contaminated with fentanyl
- **Slide 8:** Substances such as methamphetamine (a stimulant) and heroin (another opioid) commonly contain lethal doses of fentanyl.
- **Slide 9:** We learned in lesson two that the fastest rising age demographic for fentanyl-related fatalities is age 15-25. **Any theories on why this is happening?**

popular theory is that young people are obtaining pills from social media, then ingesting the pills while alone.



If you obtain a pill from anyone other than a pharmacist,
never ever take it alone.

Someone (a friend, roommate, hallmate) needs to be close by,
and that person needs to know your plan, **just in case that substance
contains fentanyl.**



- 1. Three girls travel to Tennessee for an outdoor music festival. They want to try ecstasy, also known as Molly, for the first time, but they aren't sure if Molly can contain fentanyl. What would you tell them?**

- 2. Which of these substances have been confirmed to contain lethal doses of fentanyl and to have killed people? Circle all that apply**
 - a. Cocaine
 - b. Counterfeit oxycodone
 - c. Methamphetamine
 - d. Counterfeit Xanax

- 3. Approximately what percentage of the time are counterfeit pills contaminated with fentanyl?**

- 4. Which of these substances is a white powder? Circle all that apply**
 - a. Fentanyl
 - b. Counterfeit Xanax
 - c. Counterfeit Adderall
 - d. Cocaine

If you or someone you know is at risk for a fentanyl exposure, please contact a trusted adult.

Lesson Four – How Do I Stay Safe?


Overview

In this fourth and final lesson, students will learn how to keep themselves and their peers safe from fentanyl ingestion, and how to prevent opioid overdose. They will learn about two tools available to prevent or reverse a fatal ingestion, and most importantly, review the substances that can contain a deadly amount of fentanyl.

Outcomes

- Students will learn how to recognize a potential opioid overdose.
- Students will feel empowered to be the hero, in the situation of an accidental opioid/fentanyl ingestion.
- Students will gain an understanding of the available risk-reduction tools that can both prevent and treat a life-threatening opioid ingestion

Resources

- Slide Show: [BirdieLight Lesson Four](#)
- Website: [Fatal fix: How an opioid overdose shuts down your body | Science News](#)
- Video:  [How to Use Naloxone Nasal Spray \(:30\)](#)

Lesson Plan

In this final lesson, students will become familiar with fentanyl test strips and naloxone, and learn the signs of an opioid overdose.

- Activity 1: BirdieLight PowerPoint Slides
- Activity 2: Animation with instructions on use of fentanyl test strips.
- Discussion: Create a few short 'scripts' you could use if you ever find yourself in a situation where you need to warn a friend about fentanyl danger. Perhaps you are at a party and a friend/peer is about to take a pill. One example is "Hey, do you realize 20% of all pills contain fentanyl right now." Try to come up with a few more examples.

- Discussion: Some states still classify fentanyl test strips as drug paraphernalia, although this is slowly changing. Discuss how this could be a barrier for a person who wants to obtain a test strip in order to stay safe from fentanyl.
- Closer-to-Safe Reflection

Closure

- We learned about available fentanyl safety tools, such as fentanyl test strips.
- We learned about the opioid reversal agent, naloxone.
- We learned that the safest approach is always to avoid ingesting any substance not given to you by a healthcare professional or pharmacist.
- We learned how important it is to be prepared for an opioid overdose with naloxone. Always call 911.

Lesson Four – How Do I Stay Safe?

Teaching Steps

Activity 1: BirdieLight Slide Show & Review Activity

- Today we will learn about ways in which you can keep yourself and your friends safe from fentanyl. Let's talk about the three categories of 'safe':
- **Slide 2:** Click twice to on this animated slide
 - **Not Safe** – ingesting any substance that didn't come from a pharmacist.
 - **Safer** – if you are going to ingest any pill or a powder that didn't come from a pharmacist, always test that substance for fentanyl with a fentanyl test strip. This includes all pills that could be counterfeit (most commonly fake oxycodone, xanax, adderall, ecstasy also known as molly), powders (including cocaine), and crystals (methamphetamine).
 - **Safest** – What's the safest thing you can do? Don't take any pill or powder that hasn't been given to you directly from your healthcare provider or pharmacist.
- **Slide 3:** Signs of an opioid overdose.
 - Slow or absent breathing
 - Not conversational, unresponsive
 - Lips turning blue
 - Pinpoint (very small) pupils.
 - Collapse/fainting
- **Slide 4:** Fentanyl Test Strips –let's get you closer-to-safe!
 - **Overview:** after crushing and dissolving an entire pill in a small amount of water (fill up the cap of a 2-Liter soda bottle), the end of the strip is placed into the water and held for 15 seconds. The water travels up the strip, and the chemicals on the strip will react with either one line (**positive** for fentanyl) or two lines (**negative** for fentanyl).

- **You can't test just a portion of the pill**; you need to crush and dissolve the entire pill. If you decide to move forward with ingestion of the pill (if the result is negative) you can drink the liquid.
- If you have a bag of pills, **you must test each individual pill!** (Not just one pill from the bag) **One strip for each pill!**
- Always wait three full minutes before interpreting the final results on the strip.
- There are specific instructions for testing powders like cocaine. See animation and BirdieLight website for more information.
- Don't buy just any brand of test strip off Amazon. The test strips shown here have been studied/validated, and are considered to be 92–96% sensitive at picking up fentanyl in a pill or powder. Not perfect, but really close; you should always follow our additional instructions in addition to using the strips: never use any substance alone, and always have narcan nearby.
- **Slide 5: Naloxone/Narcan**
 - Naloxone reverses the effect of an opioid in the brain. Remember that mu receptor? Naloxone is a nasal spray kicks the opioid off the mu receptor in the brain.
 - This means that the person suffering from the effects of too much opioid can begin to breathe on their own, and regain consciousness.
 - Naloxone does not get you high, is non-addictive, and is most often given as a nasal spray (very easy to administer)
 - If Naloxone is given, 911 should also be called immediately.
 - During this fentanyl public health crisis, we should all consider carrying naloxone or at least having it in schools, dorms, fraternities, clubs etc.
 - Most public health departments and risk-reduction groups pass out Narcan. In Ohio, visit **harmreductionohio.org**. Soon, you will also be able to buy it over-the-counter.
- **Slide 6: The Before and After tools**
 - These tools are powerful ways to prevent or treat a fentanyl overdose, BUT the most powerful tool we have is knowledge. We hope that knowing how lethal the current drug landscape is right now will keep all young people from ingesting substances.

- **Slide 7:** Good Samaritan Laws
 - Most states have laws that protect you from prosecution or other legal action if you need to call 911, or if you assist a person who is suffering from an opioid overdose. You should always call 911 at the same time you are administering the narcan; you don't need to worry about getting in trouble yourself.
- **Slide 8:** Three Steps for Fentanyl Safety
 - If you decide at any point to ingest a pill or a powder, and you follow these three steps, we hopefully have gotten you as close to safe as possible.

Always test any pill or powder before you ingest.

**Never use anything alone.
Know where the narcan is.**

1. What types of substances can be tested for fentanyl? Circle all that apply.

- a. Powders
- b. Pills (if crushed and dissolved)
- c. Liquids (such as heroin)
- d. Alcohol

2. If you are suspicious a person has ingested too much opioid, in what order would you proceed?

- a. Call 911 - administer naloxone - start rescue breathing/CPR
- b. Start rescue breathing/CPR - administer naloxone - call 911
- c. Administer naloxone - start rescue breathing/CPR - call 911

3. Young people age 15–25 are the fastest growing age group for fentanyl fatalities. Circle your best theory as to why this is happening:

- a. Young people are more susceptible to the effects of fentanyl.
- b. Young people take more pills than other age groups.
- c. Young people are taking pills alone, without telling another person they have ingested something.

4. Does naloxone/Narcan create a euphoria?

- a. Yes
- b. No

If you or someone you know is at risk for a fentanyl exposure, please contact a trusted adult.

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