

HELIUM ABUSE EDUCATION KIT

THE ALLIANCE FOR CONSUMER EDUCATION

Alliance for Consumer Education

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Staying Safe: How Helium Can Be Dangerous

Recommended for Grades 2-4

Have you ever been at a birthday party or watched a TV show and seen someone suck helium out of a balloon? That person's voice might get super high and squeaky, right? It might even sound like a chipmunk or Mickey Mouse, and you laugh because it's funny! You may have even tried this yourself because everyone else was doing it.



But did you know that huffing helium, especially out of the tank, could actually be dangerous? Most people don't, which is why we see it in TV shows, commercials, movies, and even at our own parties!

There are a lot of things that people do every day that do not appear to be dangerous, but could have serious consequences to their health and safety. Some of the actions I came up with are: (1) crossing the street without looking both ways, (2) wandering away from your parents in a crowded place- like the mall, (3) swimming without a parent or guardian watching, and (4) running with sharp objects- like scissors.

In the space provided write three examples of actions, activities, or choices you see people or TV characters make that could potentially be harmful to their health.

Now explain why those actions, activities, or choices could be dangerous.

Go around the room and share with your classmates two of the actions you wrote down, why they are potentially dangerous, and how you can make the decision to keep yourself safe if that situation were to arise today.

Now that you have shared what you wrote, and you have begun the discussion with your classmates, write down why you think inhaling helium could be dangerous to your health. After you are finished share with your classmates what you came up with.

Your teacher will now explain in more detail the dangers of huffing helium, but here are the main points for you to keep in mind.

Huffing helium can be dangerous because:

1. When you inhale helium it takes the place of oxygen in your lungs, and we need oxygen for our body to function properly.
2. If you inhale helium from the tank, the pressure of the compressed gas can be too much for your lungs to handle and it can cause your lungs to burst.
3. If you inhale helium too quickly from the tank, it can cause a helium bubble (called an embolism) that can get stuck in your heart or brain and block blood from flowing normally.

These are very serious health risks that you need to consider when you are in a situation where people are huffing helium. Next time you are at a party and your friends say that it would be funny to huff helium, remind them of this lesson and help keep them safe and healthy.

How Helium Affects Your Lungs- Science Experiment

Recommended for Grades 5-8

Today we will learn the science behind inhaling helium- why it changes your voice, what it does inside your body, and why it can be dangerous if not used properly.

Take a deep breath- you just inhaled oxygen and it completed a multi-step journey through your body before you exhaled.

1. Oxygen made its way from your mouth,
2. Through your airways,
3. Into your lungs,
4. Through the walls of your lungs into your bloodstream,
5. And was carried through your blood to every cell of your body.

Oxygen acts as the fuel that powers our cells and allows them to perform their jobs properly, whether that job is to help digest your food or to heal a cut or scrape. We need to breathe oxygen to keep our bodies safe, healthy, and alive.

Huffing helium may seem funny because it changes the pitch of your voice. Helium is less dense than oxygen, which means sound waves can travel through it faster. This is what makes your voice sound squeaky and high. You may have seen someone else huffing from a balloon at a birthday party, or you might have even tried it yourself. But did you know that huffing helium can actually be dangerous? Most people don't, which is why we see it in TV shows, commercials, movies, and even in our own homes!

When we inhale helium it takes the place of oxygen in our lungs, and the 5-step journey that we mentioned earlier is interrupted. Helium travels to our lungs, and pushes all of the oxygen out, leaving nothing to power our cells. Without oxygen, our cells cannot perform their jobs properly, putting our bodies in danger. Inhaling helium can make us feel dizzy and may cause us to pass out. However if we inhale too much, especially from a helium tank, it could result in your lungs bursting or even death.

Science Experiment

Follow the instructions on the next page to visualize what happens inside of your body when you inhale helium and why it can be dangerous to your health. Then, answer the questions at the end of the activity.

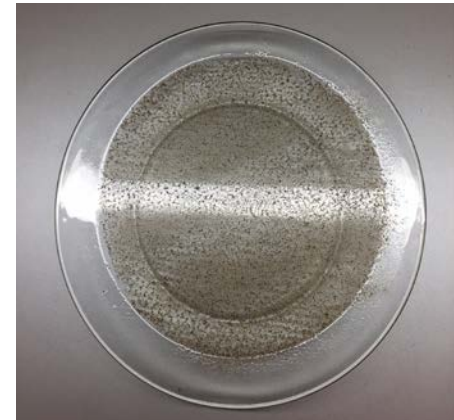
Things you will need

- A plate (this will act as your lung)
- Water
- Ground black pepper (this will act as the oxygen you inhale)
- Hand soap (this will act as the helium)



Step 1

Fill your plate halfway with water.



Step 2

Sprinkle the ground pepper in a thin, even layer on the surface of the water.



Step 3

Put a tiny drop of hand soap on your index finger. (You don't want too much so that it drips off your finger, just enough so that you know there is some there.)



Step 4

Touch your finger to the surface of water in the middle of the bowl.

If you followed all of the instructions properly, the pepper should have been pushed to the outer rim of the bowl and the middle should have no pepper left on the surface.

Discussion Questions

1. What happened when the dish soap interacted with the water and pepper?

2. How does this symbolize what happens when helium enters your lungs?

3. Why is that dangerous for your body?

4. What are some ways that we can talk to our friends and teach them about why huffing helium is dangerous?

Answer Key

1. When the soap comes into contact with the surface of the water, all of the pepper gets pushed to the rim of the plate. The middle of the plate, which represents the lung, looks as though there was never any pepper there to begin with.
2. This is symbolic of the oxygen being expelled from the lungs when helium enters the body. Just like the soap gets rid of the pepper, the helium eliminates any traces of oxygen in the lungs. This is what causes someone to feel dizzy or to pass out.
3. Without any oxygen in your body your cells cannot perform their proper functions, and your body will suffer. If helium is huffed directly from a pressurized tank, the results can be as severe as bursting a lung, experiencing a stroke or heart attack, and even death.
4. We can share this experiment with our friends and our family members and explain to them how it represents the way helium acts in our body. We can show them the Helium Education video which discusses the dangers of inhaling helium by visiting www.inhalantabuse.org. The next time we are at a party and our friends say that it would be fun to sound like a chipmunk, we can remind them of this lesson, and help them keep their body safe and healthy.

Helium Education Coloring Page

Recommended for Grades K-2



It's Logan's birthday! Help him celebrate by coloring in his decorations. Then, keep him safe by putting a red X through any items that you think may be harmful to play with.

Coloring Page Parental Supplement

Parents,

We at ACE know that every parent's priority is the safety and well-being of their children, yet it is often difficult to find the right way to speak to them about serious topics like the dangers associated with huffing helium. In order to simplify this conversation, we have compiled a series of easy, interactive educational activities that you can share with your child. This toolkit includes lesson plans and science experiments that are not only fun, but will teach your child how helium acts inside of their body and why that could be dangerous to their health.

It is never too early to begin teaching your children about topics that will keep them safe, and this coloring page is a great resource for parents with younger children. The coloring page depicts the familiar scene of a birthday party. Have your child complete this activity and then discuss with them the items that they identify as potentially harmful: the scissors, matches, tacks, and the helium tank. Explain to them that just because the helium tank may not look dangerous (it doesn't have sharp edges or can create fire like the other objects), not using a helium tank properly by inhaling directly from it or allowing friends or family to huff, can be just as dangerous to your health as the scissors, matches, and tacks.

Things to remember:

1. Refreshers are just as important as the first lesson!

Take the opportunity to remind your kids about inhaling helium before you send them off to birthday parties, class field trips, or to a friend's house. You want the lesson to be top-of-mind when they are entering at-risk environments.

2. Encourage your kids to ask questions.

When kids ask questions, it means they are engaged in the conversation and more learning is taking place. Welcome their questions and use this tool kit to answer them with confidence!

To learn more, visit www.inhalantabuse.org.

- Alliance for Consumer Education