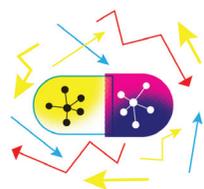


A Dangerous Mix

Learn why it's not safe to take medications with other substances.

If you take medications and mix them with other medications or substances, they can produce potentially dangerous effects.



YOU PROBABLY ALREADY KNOW anything you ingest can have an effect on your body, whether it's food, liquid, or medication. For instance, you know that if you drink coffee, the caffeine can help you stay awake. And an allergy pill can relieve your stuffy sinuses.

The active ingredients in prescription and over-the-counter (OTC) drugs are tested to make sure they are safe and will have the expected effect. But if you mix those medications with other medications or substances, intentionally or even by accident, they can produce potentially dangerous effects.

Interaction Alert

An active ingredient is the part of a drug that acts on your body. Combining substances can change the way an active ingredient works. This can increase the effect of that ingredient on your body, make it less effective, or have other unexpected results.

For example, prescription medications used to treat attention deficit hyperactivity disorder (ADHD), such as Ritalin, are stimulants. These drugs contain ingredients that increase alertness and attention, but can also increase heart rate and blood pressure.

The decongestants in many OTC allergy and cold medications are also stimulants. As a result, taking Ritalin at the same time as a decongestant can cause an additional increase in heart rate and blood pressure. Over time, this can damage the heart.

Even with OTC drugs, you can accidentally exceed the dosage of an active ingredient. For example, think about when you have a cold. You may have a headache and take a pain reliever like Tylenol. Then an hour later you have a cough, so you take cold medicine. But many OTC cold treatments contain acetaminophen, Tylenol's active ingredient. Using these medications together can cause you to exceed the recommended dose of acetaminophen, increasing your risk for liver damage.

Even vitamins, herbal supplements, and foods can interact with medications. For example, the allergy medicine Allegra is less effective if taken with citrus fruit, including grapefruit and oranges. There is also evidence that the herbal supplement St. John's wort can interact with drugs that treat depression, such as Zoloft and Prozac. These interactions can increase the risk of dangerous side effects, including heightened body temperature and seizures.

DRUGS AND ALCOHOL: A TOXIC MIX

Drinking alcohol, taking illicit drugs, or misusing prescription medications like sedatives or opioid pain relievers is never safe for teens. These substances have powerful active chemicals that can harm the developing adolescent brain, pose a high addiction risk, or even lead to death. But when mixed with other drugs, the dangers are even greater.

Mixing alcohol with other substances is particularly dangerous because alcohol

magnifies the effects of many drugs. For example, prescription opioids or sedatives can slow breathing and heart rate. So can many OTC cold or cough medicines. Taking these with alcohol can cause a person's breathing to slow so much that the person dies.

Alcohol also amplifies the impaired thinking and coordination that occurs with marijuana use. And when mixed with stimulants such as cocaine

and methamphetamines, alcohol can dangerously increase a person's heart rate, blood pressure, and body temperature.

Prescription opioids (Vicodin, Oxycontin) are extremely powerful drugs that should never be mixed, especially with sedatives or alcohol. More than 30 percent of opioid overdoses in this country involve combining opioids with sedatives such as Valium or Xanax.



Combining substances can change the way an active ingredient works on your body. This can increase the effect of that ingredient, make it less effective, or have other unexpected results.

Protecting Yourself

Thankfully, medications must include labels with usage instructions and warnings about possible interactions. Always carefully read the label with an adult before taking anything, and talk to your doctor before starting a new medication if you are still taking an old one.

Also be mindful of potential interactions with vitamins and herbal supplements, which

might not be labeled with warnings about interactions. Ask the pharmacist or your doctor to make sure these products won't interact with any medications you are taking.

Staying smart and reading labels carefully will keep you healthy and make sure your medicine is helping, not hurting you. After all, the whole point of taking medicines is to feel better, not worse!

GET MORE
For additional facts about science and your health, visit scholastic.com/headsup and teens.drugabuse.gov.

From Scholastic and the scientists of the National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services