

Drugs from Plants

Did you know that many drugs, both illegal and legal, are created from plants? For thousands of years, people have used certain plants for treating illnesses and healing wounds. Today, people use plants for treating everything from colds to cancer. Some people use plants every day, in the form of vitamins or herbs, to feel better and stay healthy. Some 25 percent of all medicines used today come from plants. Scientists work every day to find more useful drugs that are still undiscovered.

Medicines and Drugs

- Aspirin comes from the bark of a willow tree
- Penicillin is made from mold
- The ergot fungus is the base for several medications that fight headaches
- Vincristine, which is used to treat leukemia, a kind of cancer, is made from the Madagascar rosy periwinkle
- Morphine, used for the relief of severe pain, comes from the opium poppy
- Taxol, which comes from the yew plant, has potential for treating breast, ovarian, and lung cancers
- Cocaine comes from coca leaves
- Heroin comes from the seeds of the opium poppy
- Nicotine comes from the leaves of the tobacco plant
- Marijuana comes from a plant whose Latin name is *Cannabis sativa*
- Alcohol is made from a process called fermentation that involves plants and yeast

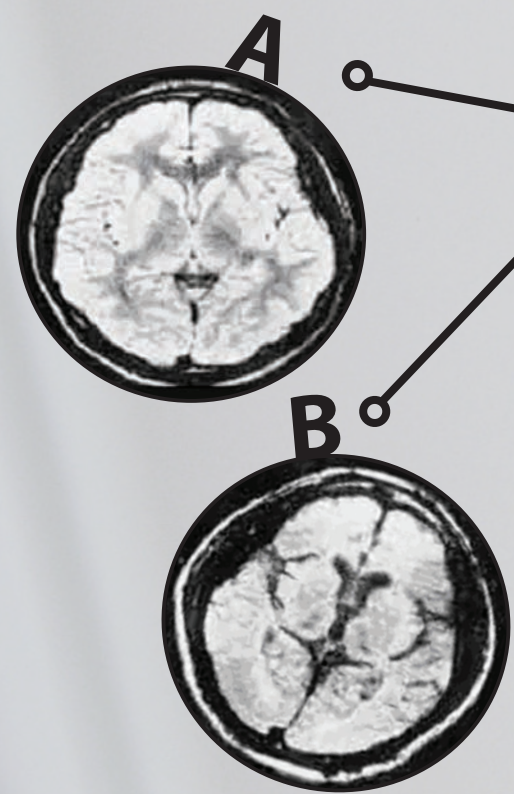
Herbal Remedies

- Just because something is labeled "herbal" or "natural" does not mean it is good for you. Always check with your family doctor
- Echinacea is an herb that activates certain cells that eat bacteria and viruses and help the immune system fight disease
- Garlic contains a chemical that acts like an antibiotic; it can also lower cholesterol and high blood pressure
- Ginger can relieve motion sickness
- Have a stomachache? Try some mint tea
- Cinnamon flavors in gum keep the breath fresh
- Goldenseal, an herb from the buttercup family, contains chemicals that kill certain bacteria and fungi
- The juice of the aloe plant can be applied to the skin to heal cuts or burns

Which brain would you rather have?

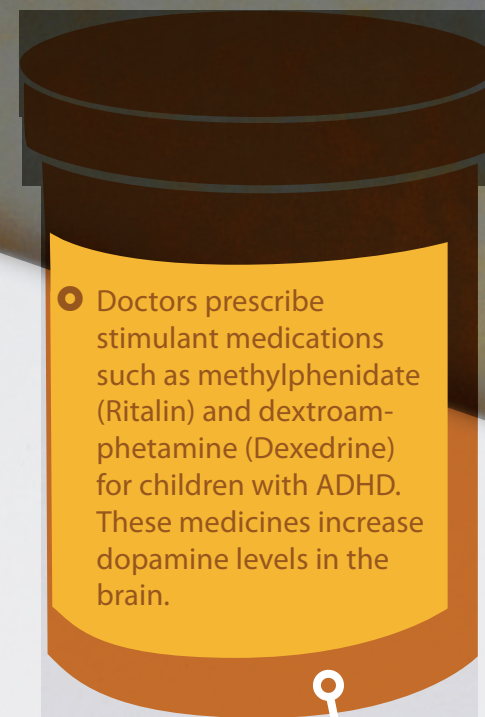
white = brain tissue

Did you pick Brain A? It belongs to someone who doesn't use inhalants. Brain B belongs to an inhalant abuser. As you can see, inhalants can cause brain tissue to shrink. In fact, long-term inhalant abuse can cause even more damage to the brain than cocaine abuse. Both drugs can cause serious damage to the brain, but a recent study found that long-term inhalant abusers are actually more likely to have brain damage, and the damage tends to be more extensive.

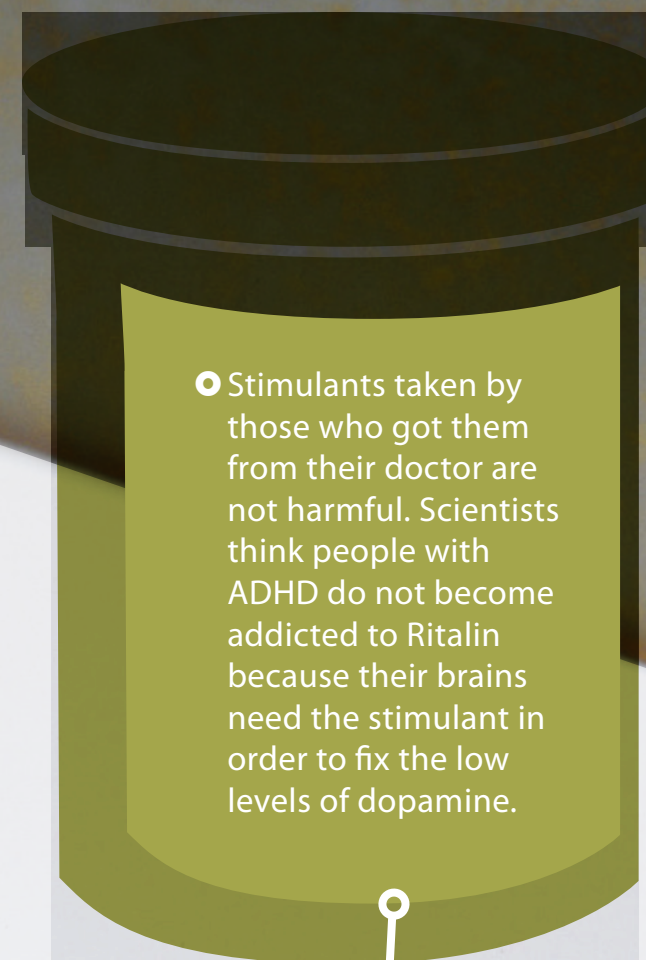


Inhalant Background
Inhalants are chemical fumes. They can be sprayed directly into the nose or mouth. They can also be inhaled from substances dropped into a bag ("bagging"), inhaled from a soaked rag ("huffing"), or inhaled from a balloon. The ingredients that produce these chemical fumes are found in many common household products. Inhalants enter the bloodstream through the lungs! They are carried in the blood to the brain, where they produce their effects very quickly and dangerously.

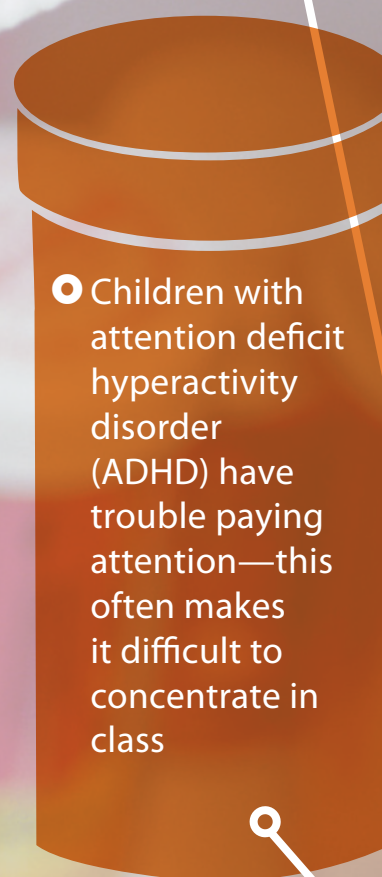
Inhalant Inspector Answers:
FRONTAL LOBE, CHEMICALS, GASES, BRAIN STEM, WEIGHT LOSS, MUSCLE WEAKNESS, IRRITABILITY, DEPRESSION
Solution: SUDDEN SNIFFING DEATH



Doctors prescribe stimulant medications such as methylphenidate (Ritalin) and dextroamphetamine (Dexedrine) for children with ADHD. These medicines increase dopamine levels in the brain.

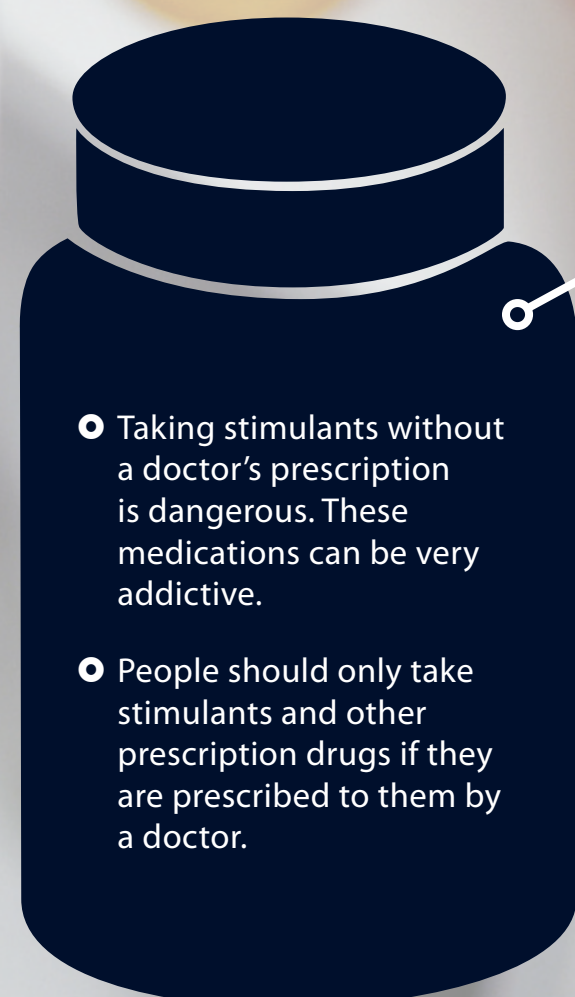


Stimulants taken by those who got them from their doctor are not harmful. Scientists think people with ADHD do not become addicted to Ritalin because their brains need the stimulant in order to fix the low levels of dopamine.

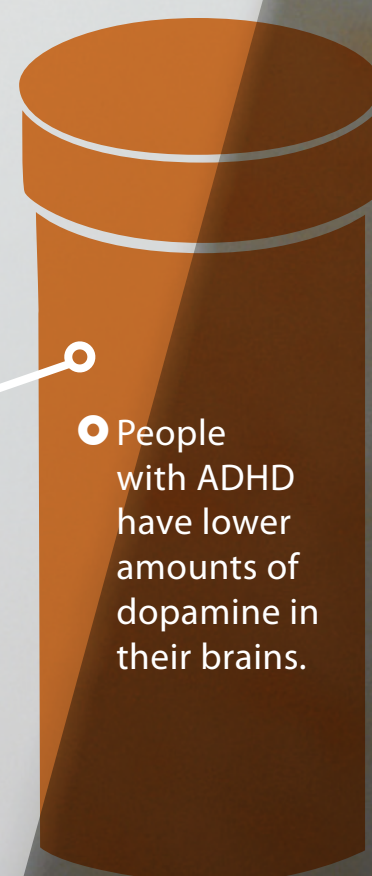


Children with attention deficit hyperactivity disorder (ADHD) have trouble paying attention—this often makes it difficult to concentrate in class

Stimulants and Their Use and Abuse



- Taking stimulants without a doctor's prescription is dangerous. These medications can be very addictive.
- People should only take stimulants and other prescription drugs if they are prescribed to them by a doctor.



People with ADHD have lower amounts of dopamine in their brains.