



[Home](#) → [Medical Encyclopedia](#) → Caffeine overdose

URL of this page: [//medlineplus.gov/ency/article/002579.htm](https://medlineplus.gov/ency/article/002579.htm)

Caffeine overdose

Caffeine is a substance that exists naturally in certain plants. It can also be man-made and added to food products. It stimulates the central nervous system and is a diuretic, which means it increases urination.

Caffeine overdose occurs when someone takes in more than a normal or recommended amount. This can be by accident or on purpose.

This article is for information only. DO NOT use it to treat or manage an actual overdose. If you or someone you are with overdoses, call your local emergency number (such as 911), or your local poison control center can be reached directly by calling the national toll-free Poison Help hotline (1-800-222-1222) from anywhere in the United States.

Poisonous Ingredient

Caffeine can be harmful in large amounts.

Where Found

Caffeine is an ingredient in these products:

- Certain soft drinks (such as Pepsi, Coke, Mountain Dew)
- Certain teas
- Chocolate, including hot chocolate drinks
- Coffee
- Energy drinks
- Over-the-counter stimulants that help you stay awake such as NoDoz, Vivarin, Caffedrine, and others
- Workout supplements, such as Force Factor Fuego, Red Bull and 5-hour Energy drinks, and many more

Other products may also contain caffeine.

Symptoms

Symptoms of caffeine overdose in adults may include:

- Breathing trouble
- Changes in alertness

- Agitation, confusion, hallucinations
- Convulsions (seizures)
- Diarrhea
- Dizziness
- Fever
- Increased thirst
- Increased urination
- Irregular heartbeat
- Muscle twitching
- Nausea, vomiting
- Rapid heartbeat
- Sleeping trouble

Symptoms in babies may include:

- Muscles that are very tense, then very relaxed
- Nausea, vomiting
- Rapid, deep breathing
- Rapid heartbeat
- Shock
- Tremors

The acute symptoms of caffeine intoxication (overdose, poisoning) and generalized anxiety disorder are almost identical.

Home Care

Seek medical help right away. Do NOT make the person throw up unless poison control or a health care provider tells you to do so.

Before Calling Emergency

Have this information ready:

- Person's age, weight, and condition
- Name of the product (ingredients and strength, if known)
- Time it was swallowed
- Amount swallowed

Poison Control

Your local poison control center can be reached directly by calling the national toll-free Poison Help hotline (1800-222-1222) from anywhere in the United States. This national hotline will let you talk to experts in poisoning. They will give you further instructions.

This is a free and confidential service. All local poison control centers in the United States use this national number. You should call if you have any questions about poisoning or poison control. It does NOT need to be an emergency. You can call for any reason, 24 hours a day, 7 days a week.

What to Expect at the Emergency Room

Take the container with you to the hospital, if possible.

The provider will measure and monitor the person's vital signs, including temperature, pulse, breathing rate, and blood pressure.

Tests that may be done include:

- Blood and urine tests
- Chest x-ray
- ECG (electrocardiogram, or heart tracing)

Treatment may include:

- Activated charcoal
- Breathing support, which may include oxygen or a ventilator (tube through the mouth into the lungs and breathing machine)
- Intravenous fluids (IV, given through a vein)
- Laxative
- Medicine to treat symptoms
- Shock to the heart for serious heart rhythm disturbances

Outlook (Prognosis)

A brief hospital stay may be necessary to complete treatment. In severe cases, death may result from convulsions or an irregular heartbeat.

References

Aronson JK. Caffeine. In: Aronson JK, ed. *Meyler's Side Effects of Drugs*. 16th ed. Waltham, MA: Elsevier; 2016:7-15.

Meehan TJ. Care of the poisoned patient. In: Walls RM, ed. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 10th ed. Philadelphia, PA: Elsevier; 2023:chap 135.

Zun LS, Nathan JB. Anxiety disorders. In: Walls RM, ed. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 10th ed. Philadelphia, PA: Elsevier; 2023:chap 98.

Review Date 7/1/2023

Updated by: Jesse Borke, MD, CPE, FAAEM, FACEP, Attending Physician at Kaiser Permanente, Orange County, CA. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

Learn how to cite this page



Health Content
Provider
06/01/2028

A.D.A.M., Inc. is accredited by [URAC](http://www.urac.org), for Health Content Provider (www.urac.org). URAC's [accreditation program](#) is an independent audit to verify that A.D.A.M. follows rigorous standards of quality and accountability. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial policy](#), [editorial process](#), and [privacy policy](#).

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed medical professional should be consulted for diagnosis and treatment of any and all medical conditions. Links to other sites are provided for information only – they do not constitute endorsements of those other sites. No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, timeliness, or correctness of any translations made by a third-party service of the information provided herein into any other language. © 1997-2025 A.D.A.M., a business unit of Ebix, Inc. Any duplication or distribution of the information contained herein is strictly prohibited.

