Effects of Excessive Caffeine Consumption [[1](https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much#:~:text=%E2%80%9CEnergy%20Drinks%E2%80%9D%20and%20Children%20and%20Teens%0A%0AToo%20much,to%20sleep%20problems%2C%20digestive%20problems%20and%20dehydration.)]

Caffeine is a stimulant that can provide temporary feelings of alertness and energy. However, consuming excessive amounts of caffeine can lead to various adverse effects. [[2](https://www.geisinger.org/health-and-wellness/wellness-articles/2023/02/24/17/33/how-much-caffeine-is-too-much), [3](https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much#:~:text=Pure%20and%20Highly%20Concentrated%20Caffeine%20Products%20The,can%20have%20serious%20health%20consequences%2C%20including%20death.), [4](https://rightasrain.uwmedicine.org/body/food/too-much-caffeine)]

**Symptoms of Caffeine Overdose: [**[**5**](https://myhealth.alberta.ca/alberta/pages/Substance-use-caffeine.aspx)**,** [**6**](https://www.aurorahealthcare.org/services/gastroenterology-colorectal-surgery/caffeine-side-effects#:~:text=If%20your%20overall%20health%20is%20good%20and,Having%20trouble%20sleeping.%20Anxiety%2C%20restlessness%20or%20irritability.)**]**

* Anxiety and restlessness
* Insomnia and difficulty sleeping
* Headache
* Heart palpitations
* Nausea and vomiting
* Diarrhea
* Tremors
* Seizures (in rare cases) [[5](https://myhealth.alberta.ca/alberta/pages/Substance-use-caffeine.aspx), [6](https://www.aurorahealthcare.org/services/gastroenterology-colorectal-surgery/caffeine-side-effects#:~:text=If%20your%20overall%20health%20is%20good%20and,Having%20trouble%20sleeping.%20Anxiety%2C%20restlessness%20or%20irritability.), [7](https://www.healthline.com/health/caffeine-overdose), [8](https://my.clevelandclinic.org/health/diseases/caffeine-overdose), [9](https://www.addictionhelp.com/caffeine/effects/#:~:text=Insomnia%20and%20trouble%20falling%20asleep%20are%20common,how%20long%20caffeine%20stays%20in%20your%20system.), [10](https://www.ama-assn.org/delivering-care/public-health/what-doctors-wish-patients-knew-about-impact-caffeine), [11](https://healthcare.utah.edu/healthfeed/2023/08/how-much-caffeine-too-much-understanding-risks), [12](https://www.healthline.com/health/caffeine-overdose#:~:text=More%20serious%20signs%20of%20caffeine%20overdose%20can,symptoms%2C%20including%20vomiting%2C%20rapid%20breathing%2C%20and%20shock.), [13](https://my.clevelandclinic.org/health/diseases/caffeine-overdose), [14](https://ecoffeemoments.net/en/blog/Caffeine-Overdose/a-434818787#:~:text=%D9%81%D8%B1%D8%B7%20%D8%A7%D9%84%D9%83%D8%A7%D9%81%D9%8A%D9%8A%D9%86:%20%D8%AA%D8%A3%D8%AB%D9%8A%D8%B1%D8%A7%D8%AA%D9%87%20%D9%88%D8%A3%D8%B9%D8%B1%D8%A7%D8%B6%D9%87%20%D9%88%D9%83%D9%8A%D9%81%D9%8A%D8%A9%20%D8%A7%D9%84%D8%AA%D8%B9%D8%A7%D9%85%D9%84%20%D9%85%D8%B9%D9%87,Increased%20Heart%20Rate%20Nausea%20and%20Vomiting%20Headache), [15](https://www.healthline.com/health/caffeine-overdose)]

**Health Risks: [**[**16**](https://www.healthline.com/health/caffeine-overdose#:~:text=Causes%20and%20risk%20factors%20of%20caffeine%20overdose%0A%0AHowever%2C,health%20issues%2C%20including%20irregular%20heartbeat%20and%20seizures.)**]**

* **Increased Heart Rate and Blood Pressure:** Caffeine can stimulate the nervous system, leading to an increased heart rate and blood pressure. This can be dangerous for people with pre-existing heart conditions. [[17](https://www.youtube.com/watch?v=aFbfpqPe_uY), [18](https://lapsurgery.com.au/2024/10/high-blood-pressure-sufferers/19029/#:~:text=Caffeinated%20Drinks%20Caffeine%20can%20cause%20a%20temporary,elevate%20blood%20pressure%20if%20consumed%20in%20excess.), [19](https://www.sl.nsw.gov.au/drug-info/drugs/z-drugs/caffeine#:~:text=People%20with%20existing%20medical%20conditions%20(for%20example%2C,consumed%20amount%20of%20caffeine%20potentially%20more%20dangerous.)]
* **Dehydration:** Caffeine is a diuretic, which means it increases urination. This can lead to dehydration, especially if not accompanied by adequate water intake. [[20](https://health.clevelandclinic.org/what-caffeine-does-to-your-body), [21](https://www.healthline.com/nutrition/how-to-get-caffeine-out-of-your-system#:~:text=Additionally%2C%20if%20you're%20not%20used%20to%20caffeine%2C,Trusted%20Source%20%2C%208%20Trusted%20Source%20).), [22](https://health.clevelandclinic.org/how-much-caffeine-is-too-much#:~:text=Dehydration%20Caffeine%20has%20a%20diuretic%20effect%20%E2%80%94,of%20water%20along%20with%20any%20caffeinated%20beverages.), [23](https://edhub.ama-assn.org/jn-learning/video-player/18675468#:~:text=And%20there%20are%20other%20things%20that%20you,promotes%20urination%20because%20caffeine%20is%20a%20diuretic.)]
* **Headaches:** Excessive caffeine consumption can cause headaches, as it interferes with the body's natural headache-suppressing mechanisms. [[24](https://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/does-caffeine-treat-or-trigger-headaches#:~:text=Caffeine%20can%20trigger%20a%20headache.%0A%0AAnd%20because%20caffeine,is%20known%20as%20a%20caffeine%20withdrawal%20headache.)]
* **Bone Loss:** Studies have shown that high caffeine intake over long periods may contribute to bone loss. [[25](https://www.healthline.com/health/caffeine-effects-on-body)]
* **Anxiety and Irritability:** Caffeine can stimulate the central nervous system, leading to feelings of anxiety and irritability. [[26](https://health.clevelandclinic.org/how-much-caffeine-is-too-much), [27](https://www.healthline.com/nutrition/caffeine-side-effects#:~:text=Although%20low%2Dto%2Dmoderate%20doses%20of%20caffeine%20can%20increase,to%20determine%20how%20much%20you%20can%20tolerate.)]
* **Worsening of Existing Conditions:** Caffeine can worsen existing conditions such as seizures, glaucoma, and irritable bowel syndrome. [[28](https://www.webmd.com/vitamins/ai/ingredientmono-979/caffeine)]

**Precautions: [**[**29**](https://www.luminishealth.org/en/blog/how-much-caffeine-too-much?language_content_entity=en#:~:text=Consuming%20too%20much%20caffeine%20all%20at%20once,to%20reduce%20the%20risk%20of%20side%20effects.)**]**

* Limit caffeine intake to no more than 400mg per day (equivalent to about 4 cups of coffee). [[29](https://www.luminishealth.org/en/blog/how-much-caffeine-too-much?language_content_entity=en#:~:text=Consuming%20too%20much%20caffeine%20all%20at%20once,to%20reduce%20the%20risk%20of%20side%20effects.)]
* Avoid consuming caffeine late in the day or before bed. [[30](https://www.youtube.com/watch?v=6_SMZXvwvZU)]
* Do not mix caffeine with alcohol or other stimulants. [[5](https://myhealth.alberta.ca/alberta/pages/Substance-use-caffeine.aspx)]
* Seek medical attention if you experience any severe symptoms after consuming caffeine, such as seizures or chest pain. [[4](https://rightasrain.uwmedicine.org/body/food/too-much-caffeine), [31](https://www.verywellhealth.com/too-much-caffeine-5207200#:~:text=Chest%20Pain%0A%0AThose%20with%20health%20conditions%2C%20who%20are,sure%20to%20seek%20medical%20help%20right%20away.), [32](https://www.cnn.com/2024/03/11/health/what-is-caffeine-intoxication-wellness/index.html#:~:text=Caffeine%20intoxication%20occurs%20when%20a%20person%20has,where%20people%20have%20died%20from%20caffeine%20intoxication.)]

Conclusion: [[33](https://www.healthline.com/nutrition/caffeine-side-effects#:~:text=Given%20this%20effect%2C%20it's%20not%20surprising%20that,stools%20or%20even%20diarrhea%20in%20some%20people.), [34](https://www.bbc.com/future/article/20240605-what-happens-if-you-take-too-much-caffeine-and-how-much-is-too-much#:~:text=%22But%20while%20caffeine's%20ability%20to%20increase%20blood,migraine%20suffers%2C%22%20he%20(%20Bailey%20)%20says.), [35](https://timesofindia.indiatimes.com/life-style/health-fitness/diet/consuming-too-much-caffeine-here-are-the-side-effects-you-should-know-about/articleshow/114215981.cms#:~:text=Having%20trouble%20sleeping?%20Caffeine%20could%20be%20to%20blame)]

While caffeine can provide temporary benefits, excessive consumption can lead to various adverse effects. It is important to moderate caffeine intake and consult a healthcare professional if you have any concerns about your caffeine consumption. [[2](https://www.geisinger.org/health-and-wellness/wellness-articles/2023/02/24/17/33/how-much-caffeine-is-too-much), [4](https://rightasrain.uwmedicine.org/body/food/too-much-caffeine), [6](https://www.aurorahealthcare.org/services/gastroenterology-colorectal-surgery/caffeine-side-effects#:~:text=If%20your%20overall%20health%20is%20good%20and,Having%20trouble%20sleeping.%20Anxiety%2C%20restlessness%20or%20irritability.), [17](https://www.youtube.com/watch?v=aFbfpqPe_uY), [36](https://healthcare.utah.edu/the-scope/womens-7/all/2024/01/e39-emotional-domain-of-caffeine#:~:text=The%20effects%20of%20caffeine%20are%20diverse%2C%20with,in%20sleep%20patterns%2C%20adversely%20affecting%20emotional%20health.)]

*Generative AI is experimental.*

[1] [https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much](https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much#:~:text=%E2%80%9CEnergy%20Drinks%E2%80%9D%20and%20Children%20and%20Teens%0A%0AToo%20much,to%20sleep%20problems%2C%20digestive%20problems%20and%20dehydration.)

[2] <https://www.geisinger.org/health-and-wellness/wellness-articles/2023/02/24/17/33/how-much-caffeine-is-too-much>

[3] [https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much](https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much#:~:text=Pure%20and%20Highly%20Concentrated%20Caffeine%20Products%20The,can%20have%20serious%20health%20consequences%2C%20including%20death.)

[4] <https://rightasrain.uwmedicine.org/body/food/too-much-caffeine>

[5] <https://myhealth.alberta.ca/alberta/pages/Substance-use-caffeine.aspx>

[6] [https://www.aurorahealthcare.org/services/gastroenterology-colorectal-surgery/caffeine-side-effects](https://www.aurorahealthcare.org/services/gastroenterology-colorectal-surgery/caffeine-side-effects#:~:text=If%20your%20overall%20health%20is%20good%20and,Having%20trouble%20sleeping.%20Anxiety%2C%20restlessness%20or%20irritability.)

[7] <https://www.healthline.com/health/caffeine-overdose>

[8] <https://my.clevelandclinic.org/health/diseases/caffeine-overdose>

[9] [https://www.addictionhelp.com/caffeine/effects/](https://www.addictionhelp.com/caffeine/effects/#:~:text=Insomnia%20and%20trouble%20falling%20asleep%20are%20common,how%20long%20caffeine%20stays%20in%20your%20system.)

[10] <https://www.ama-assn.org/delivering-care/public-health/what-doctors-wish-patients-knew-about-impact-caffeine>

[11] <https://healthcare.utah.edu/healthfeed/2023/08/how-much-caffeine-too-much-understanding-risks>

[12] [https://www.healthline.com/health/caffeine-overdose](https://www.healthline.com/health/caffeine-overdose#:~:text=More%20serious%20signs%20of%20caffeine%20overdose%20can,symptoms%2C%20including%20vomiting%2C%20rapid%20breathing%2C%20and%20shock.)

[13] <https://my.clevelandclinic.org/health/diseases/caffeine-overdose>

[14] [https://ecoffeemoments.net/en/blog/Caffeine-Overdose/a-434818787](https://ecoffeemoments.net/en/blog/Caffeine-Overdose/a-434818787#:~:text=%D9%81%D8%B1%D8%B7%20%D8%A7%D9%84%D9%83%D8%A7%D9%81%D9%8A%D9%8A%D9%86:%20%D8%AA%D8%A3%D8%AB%D9%8A%D8%B1%D8%A7%D8%AA%D9%87%20%D9%88%D8%A3%D8%B9%D8%B1%D8%A7%D8%B6%D9%87%20%D9%88%D9%83%D9%8A%D9%81%D9%8A%D8%A9%20%D8%A7%D9%84%D8%AA%D8%B9%D8%A7%D9%85%D9%84%20%D9%85%D8%B9%D9%87,Increased%20Heart%20Rate%20Nausea%20and%20Vomiting%20Headache)

[15] <https://www.healthline.com/health/caffeine-overdose>

[16] [https://www.healthline.com/health/caffeine-overdose](https://www.healthline.com/health/caffeine-overdose#:~:text=Causes%20and%20risk%20factors%20of%20caffeine%20overdose%0A%0AHowever%2C,health%20issues%2C%20including%20irregular%20heartbeat%20and%20seizures.)

[17] <https://www.youtube.com/watch?v=aFbfpqPe_uY>

[18] [https://lapsurgery.com.au/2024/10/high-blood-pressure-sufferers/19029/](https://lapsurgery.com.au/2024/10/high-blood-pressure-sufferers/19029/#:~:text=Caffeinated%20Drinks%20Caffeine%20can%20cause%20a%20temporary,elevate%20blood%20pressure%20if%20consumed%20in%20excess.)

[19] [https://www.sl.nsw.gov.au/drug-info/drugs/z-drugs/caffeine](https://www.sl.nsw.gov.au/drug-info/drugs/z-drugs/caffeine#:~:text=People%20with%20existing%20medical%20conditions%20(for%20example%2C,consumed%20amount%20of%20caffeine%20potentially%20more%20dangerous.)

[20] <https://health.clevelandclinic.org/what-caffeine-does-to-your-body>

[21] [https://www.healthline.com/nutrition/how-to-get-caffeine-out-of-your-system](https://www.healthline.com/nutrition/how-to-get-caffeine-out-of-your-system#:~:text=Additionally%2C%20if%20you're%20not%20used%20to%20caffeine%2C,Trusted%20Source%20%2C%208%20Trusted%20Source%20).)

[22] [https://health.clevelandclinic.org/how-much-caffeine-is-too-much](https://health.clevelandclinic.org/how-much-caffeine-is-too-much#:~:text=Dehydration%20Caffeine%20has%20a%20diuretic%20effect%20%E2%80%94,of%20water%20along%20with%20any%20caffeinated%20beverages.)

[23] [https://edhub.ama-assn.org/jn-learning/video-player/18675468](https://edhub.ama-assn.org/jn-learning/video-player/18675468#:~:text=And%20there%20are%20other%20things%20that%20you,promotes%20urination%20because%20caffeine%20is%20a%20diuretic.)

[24] [https://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/does-caffeine-treat-or-trigger-headaches](https://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/does-caffeine-treat-or-trigger-headaches#:~:text=Caffeine%20can%20trigger%20a%20headache.%0A%0AAnd%20because%20caffeine,is%20known%20as%20a%20caffeine%20withdrawal%20headache.)

[25] <https://www.healthline.com/health/caffeine-effects-on-body>

[26] <https://health.clevelandclinic.org/how-much-caffeine-is-too-much>

[27] [https://www.healthline.com/nutrition/caffeine-side-effects](https://www.healthline.com/nutrition/caffeine-side-effects#:~:text=Although%20low%2Dto%2Dmoderate%20doses%20of%20caffeine%20can%20increase,to%20determine%20how%20much%20you%20can%20tolerate.)

[28] <https://www.webmd.com/vitamins/ai/ingredientmono-979/caffeine>

[29] [https://www.luminishealth.org/en/blog/how-much-caffeine-too-much?language\_content\_entity=en](https://www.luminishealth.org/en/blog/how-much-caffeine-too-much?language_content_entity=en#:~:text=Consuming%20too%20much%20caffeine%20all%20at%20once,to%20reduce%20the%20risk%20of%20side%20effects.)

[30] <https://www.youtube.com/watch?v=6_SMZXvwvZU>

[31] [https://www.verywellhealth.com/too-much-caffeine-5207200](https://www.verywellhealth.com/too-much-caffeine-5207200#:~:text=Chest%20Pain%0A%0AThose%20with%20health%20conditions%2C%20who%20are,sure%20to%20seek%20medical%20help%20right%20away.)

[32] [https://www.cnn.com/2024/03/11/health/what-is-caffeine-intoxication-wellness/index.html](https://www.cnn.com/2024/03/11/health/what-is-caffeine-intoxication-wellness/index.html#:~:text=Caffeine%20intoxication%20occurs%20when%20a%20person%20has,where%20people%20have%20died%20from%20caffeine%20intoxication.)

[33] [https://www.healthline.com/nutrition/caffeine-side-effects](https://www.healthline.com/nutrition/caffeine-side-effects#:~:text=Given%20this%20effect%2C%20it's%20not%20surprising%20that,stools%20or%20even%20diarrhea%20in%20some%20people.)

[34] [https://www.bbc.com/future/article/20240605-what-happens-if-you-take-too-much-caffeine-and-how-much-is-too-much](https://www.bbc.com/future/article/20240605-what-happens-if-you-take-too-much-caffeine-and-how-much-is-too-much#:~:text=%22But%20while%20caffeine's%20ability%20to%20increase%20blood,migraine%20suffers%2C%22%20he%20(%20Bailey%20)%20says.)

[35] [https://timesofindia.indiatimes.com/life-style/health-fitness/diet/consuming-too-much-caffeine-here-are-the-side-effects-you-should-know-about/articleshow/114215981.cms](https://timesofindia.indiatimes.com/life-style/health-fitness/diet/consuming-too-much-caffeine-here-are-the-side-effects-you-should-know-about/articleshow/114215981.cms#:~:text=Having%20trouble%20sleeping?%20Caffeine%20could%20be%20to%20blame)

[36] [https://healthcare.utah.edu/the-scope/womens-7/all/2024/01/e39-emotional-domain-of-caffeine](https://healthcare.utah.edu/the-scope/womens-7/all/2024/01/e39-emotional-domain-of-caffeine#:~:text=The%20effects%20of%20caffeine%20are%20diverse%2C%20with,in%20sleep%20patterns%2C%20adversely%20affecting%20emotional%20health.)