

Baking soda

## Description

To Jesus:

You can use this as an aide to your own research and share with your doctor.

You can use [drugs.com](https://www.drugs.com) or other trusted health websites to look up the latest information on prescription & herbal drugs possible side & interaction effects.

For supplements/herbs having an independent testing certification is essential. Pharmaceutical grade is the highest standard.

Baking soda (sodium bicarbonate)

Baking soda is highly alkaline and easy to take with water 1/2hr before & hour after eating (empty stomach) and at low doses may have little adverse side effects. It appears to help fight

autoimmune disease inflammation, cancer, bacterial infections & fungal infections like mucormycosis (especially if have diabetes II), cavities, canker sores, kidney disease (including from crush syndrome), kidney stones, a lot of medications overdose, eye diseases, GERD, gout, canker sores & help athletic endurance.

People often take 1/8ts three times a day, 1/4ts – 1/2 ts one or two times a day or 1/2 to 1 ts once a day with water on an empty stomach to get the benefits. People may start with 1/8ts at a time, then increase as comfortable. The longer people take it the lower the dosage needed.

[verywellhealth.com/baking-soda-for-inflammation-5093321](https://www.verywellhealth.com/baking-soda-for-inflammation-5093321)

Baking soda doesn't appear to increase blood pressure (may mildly lower it if high)

Gaggl M, Repitz A, Riesenhuber S, Aigner C, Sliber C, Fraunschiel M, Cejka D, Sunder-Plassmann G. Effect of Oral Sodium Bicarbonate Treatment on 24-Hour Ambulatory Blood Pressure Measurements in Patients With Chronic Kidney Disease and Metabolic Acidosis. *Front Med (Lausanne)*. 2021 Sep 6;8:711034. doi: 10.3389/fmed.2021.711034. PMID: 34552945; PMCID: PMC8450526.

Beynon-Cobb B, Louca P, Hoorn EJ, Menni C, Padmanabhan S. Effect of Sodium Bicarbonate on Systolic Blood Pressure in CKD: A Systematic Review and Meta-Analysis. *Clin J Am Soc Nephrol*. 2023 Apr 1;18(4):435-445. doi: 10.2215/CJN.000000000000119.

Epub 2023 Mar 9. PMID: 36758154; PMCID: PMC10103210.  
Luft FC, Zemel MB, Sowers JA, Fineberg NS, Weinberger MH.  
Sodium bicarbonate and sodium chloride: effects on blood pressure  
and electrolyte homeostasis in normal and hypertensive man. *J  
Hypertens.* 1990 Jul;8(7):663-70. doi: 10.1097/00004872-  
199007000-00010. PMID: 2168457.

#### Fungal infections

Baking soda can help stop fungal infections, including ones exacerbated by diabetes.

Gebremariam, T., et al. (2016). Bicarbonate correction of ketoacidosis alters host-pathogen interactions and alleviates mucormycosis. *Journal of Clinical Investigation.* Doi: 10.1172/JCI82744

*De Brito-Ashurst I, et al. (2009). Bicarbonate supplementation slows progression of CKD and improves nutritional status.*

<https://jasn.asnjournals.org/content/20/9/2075>

#### Tooth whitening

Baking soda helps stop cavities & helps whiten teeth in studies.

*Kleber CJ, et al. (1998). Laboratory assessment of tooth whitening by sodium bicarbonate dentifrices.*

<https://www.ncbi.nlm.nih.gov/pubmed/10518866>

Putt MS, Milleman KR, Ghassemi A, Vorwerk LM, Hooper WJ, Soparkar PM, Winston AE, Proskin HM. Enhancement of plaque removal efficacy by tooth brushing with baking soda dentifrices: results of five clinical studies. *J Clin Dent.* 2008;19(4):111-9. PMID: 19278079.

## Eczema, psoriasis & acn

Eczema, psoriasis & sometimes acne are autoimmune conditions that that often helped by using baking soda topically, both for its antibacterial & anti-inflammatory effects. Topical zinc often works as well. It can be very effective with poison ivy/oak exposure & fungal infections as well.

[verywellhealth.com/baking-soda-for-eczema-5196433](https://www.verywellhealth.com/baking-soda-for-eczema-5196433)

[healthline.com/health/beauty-skin-care/baking-soda-for-skin#conditions-it-may-help](https://www.healthline.com/health/beauty-skin-care/baking-soda-for-skin#conditions-it-may-help)

## Baking soda as very strong anti-inflammatory

Baking soda may eliminate autoimmune disease inflammation & reduce osteoporosis by turning off the spleen's inflammation response & turning on its anti-inflammatory response.

Sarah C. Ray, Babak Baban, Matthew A. Tucker, Alec J. Seaton, Kyu Chul Chang, Elinor C. Mannon, Jingping Sun, Bansari Patel, Katie Wilson, Jacqueline B. Musall, Hiram Ocasio, Debra Irsik, Jessica A. Filosa, Jennifer C. Sullivan, Brendan Marshall, Ryan A. Harris, Paul M. O'Connor. **Oral NaHCO<sub>3</sub> Activates a Splenic Anti-Inflammatory Pathway: Evidence That Cholinergic Signals Are Transmitted via Mesothelial Cells.** *The Journal of Immunology*, 2018; ji1701605 DOI: [10.4049/jimmunol.1701605](https://doi.org/10.4049/jimmunol.1701605)

Medical College of Georgia at Augusta University. "Drinking baking soda could be an inexpensive, safe way to combat autoimmune disease." ScienceDaily. ScienceDaily, 25 April 2018. [sciencedaily.com/releases/2018/04/180425093745.htm](https://www.sciencedaily.com/releases/2018/04/180425093745.htm)

## Cancer

Because most cancers need a lot of sugar and a highly acidic environment to flourish, taking baking soda in between meals with water or under the tongue may make tumors less acidic and make cancer harder to grow, reducing cancer metastases in multiple

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studies. It is also often used to reduce the adverse side effects of chemotherapy.

Yang M, Zhong X, Yuan Y. Does Baking Soda Function as a Magic Bullet for Patients With Cancer? A Mini Review. *Integr Cancer Ther.* 2020 Jan-Dec;19:1534735420922579. doi:

10.1177/1534735420922579. PMID: 32448009; PMCID: PMC7249593. [ncbi.nlm.nih.gov/pmc/articles/PMC7249593](https://ncbi.nlm.nih.gov/pmc/articles/PMC7249593)

Robey IF, Baggett BK, Kirkpatrick ND, Roe DJ, Dosescu J, Sloane BF, Hashim AI, Morse DL, Raghunand N, Gatenby RA, Gillies RJ. Bicarbonate increases tumor pH and inhibits spontaneous metastases. *Cancer Res.* 2009 Mar 15;69(6):2260-8. doi:

10.1158/0008-5472.CAN-07-5575. Epub 2009 Mar 10. PMID: 19276390; PMCID: PMC2834485.

[ncbi.nlm.nih.gov/pmc/articles/PMC2834485/](https://ncbi.nlm.nih.gov/pmc/articles/PMC2834485/)

Robey IF, Nesbit LA. Investigating mechanisms of alkalinization for reducing primary breast tumor invasion. *Biomed Res Int.*

2013;2013:485196. doi: 10.1155/2013/485196. Epub 2013 Jul 10. PMID: 23936808; PMCID: PMC3722989.

[pubmed.ncbi.nlm.nih.gov/23936808/](https://pubmed.ncbi.nlm.nih.gov/23936808/)

Zandra E. Walton, Chirag H. Patel, Rebekah C. Brooks, Yongjun Yu, Arig Ibrahim-Hashim, Malini Riddle, Alessandra Porcu, Tianying Jiang, Brett L. Ecker, Feven Tameire, Constantinos Koumenis, Ashani T. Weeraratna, David K. Welsh, Robert Gillies, James C. Alwine, Lin Zhang, Jonathan D. Powell, Chi V. Dang. **Acid**

**Suspends the Circadian Clock in Hypoxia through Inhibition of mTOR.** *Cell*, 2018; DOI: [10.1016/j.cell.2018.05.009](https://doi.org/10.1016/j.cell.2018.05.009) Ludwig Institute for Cancer Research. "How might baking soda boost cancer therapy?." ScienceDaily. ScienceDaily, 1 June 2018.

[sciencedaily.com/releases/2018/06/180601134720.htm](https://sciencedaily.com/releases/2018/06/180601134720.htm)

H. Lee Moffitt Cancer Center & Research Institute. "Neutralizing tumor acidic environment improves immune-targeting therapies." ScienceDaily. ScienceDaily, 17 March 2016. <[www.sciencedaily.com/releases/2016/03/160317114538.htm](http://www.sciencedaily.com/releases/2016/03/160317114538.htm)>.

S. Pilon-Thomas, K. N. Kodumudi, A. E. El-Kenawi, S. Russell, A. M. Weber, K. Luddy, M. Damaghi, J. W. Wojtkowiak, J. J. Mule, A. Ibrahim-Hashim, R. J. Gillies. **Neutralization of Tumor Acidity Improves Antitumor Responses to Immunotherapy.** *Cancer Research*, 2015; 76 (6): 1381 DOI: [10.1158/0008-5472.CAN-15-1743](https://doi.org/10.1158/0008-5472.CAN-15-1743)

At [www.cancertutor.com](http://www.cancertutor.com) there is a treatment that uses baking soda and maple syrup (or honey) to take the baking soda into the cancer cell at higher rates.

Baking soda very strong antibacterial

Taking baking soda at 1/2 ts twice a day appears to help prevent bacterial respiratory infections, including during the pandemic of 1918 (bacterial encephalopathy, not "flu"). Taking it when having a bacterial infection appears to help kill the bacteria, including when used topically on a wound. It appears to help work against sepsis pathogens & reverse the increased acidity caused by sepsis & prevent kidney shutdown.

If sick Arm & Hammer recommended taking 1/2 ts with water as able every two hours or until symptoms abate, as they appear to quickly.

rense.com/general96/baking-soda-was-successful-against-the-spanish-flu.php

Farha MA, French S, Stokes JM, Brown ED. Bicarbonate Alters Bacterial Susceptibility to Antibiotics by Targeting the Proton Motive Force. *ACS Infect Dis.* 2018 Mar 9;4(3):382-390. doi: 10.1021/acsinfecdis.7b00194. Epub 2018 Jan 4. PMID: 29264917.

CORRAL, L.G., POST, L.S. and MONTVILLE, T.J. (1988), Antimicrobial Activity of Sodium Bicarbonate. *Journal of Food Science*, 53: 981-982. <https://doi.org/10.1111/j.1365-2621.1988.tb09005.x>

*ACS Infect. Dis.* 2020, DOI: [10.1021/acsinfecdis.0c00340](https://doi.org/10.1021/acsinfecdis.0c00340)

[acsh.org/news/2018/01/11/spoonful-baking-soda-helps-antibiotics-go-down-12387](https://www.acsh.org/news/2018/01/11/spoonful-baking-soda-helps-antibiotics-go-down-12387)

Cystic fibrosis

Nebulized sodium or potassium bicarbonate may combat cystic fibrosis specific lung bacterial infections, & reduce the acidity that makes it hard to clear lung mucus. It appears to be the lack of bicarbonate secretion that increases mucus thickness.

*Journal of Clinical Investigation*. "Bicarbonate Linked To Sticky Mucus In Cystic Fibrosis." *ScienceDaily*. *ScienceDaily*, 27 August 2009. <[www.sciencedaily.com/releases/2009/08/090825085954.htm](http://www.sciencedaily.com/releases/2009/08/090825085954.htm)>.

Garcia et al. **Normal mouse intestinal mucus release requires cystic fibrosis transmembrane regulator-dependent bicarbonate secretion.** *Journal of Clinical Investigation*, 2009; DOI: [10.1172/JCI38662](https://doi.org/10.1172/JCI38662)

Robert C. De Lisle. **Pass the bicarb: the importance of HCO<sub>3</sub><sup>-</sup> for mucin release.** *Journal of Clinical Investigation*, 2009; DOI: [10.1172/JCI40598](https://doi.org/10.1172/JCI40598)

Dobay O, Laub K, Stercz B, Kéri A, Balázs B, Tóthpál A, Kardos S, Jaikumpun P, Ruksakiet K, Quinton PM and Zsembery Á (2018) Bicarbonate Inhibits Bacterial Growth and Biofilm Formation of Prevalent Cystic Fibrosis Pathogens. *Front. Microbiol.* 9:2245. doi: 10.3389/fmicb.2018.02245

Siew R, Ou TL, Dahesh S, Akong K, Nizet V. Bicarbonate Effects on Antibacterial Immunity and Mucus Glycobiology in the Cystic Fibrosis Lung: A Review With Selected Experimental Observations. *Infect Microbes Dis.* 2022 Sep;4(3):103-110. doi: 10.1097/im9.000000000000101. Epub 2022 Aug 16. PMID: 36793929; PMCID: PMC9928163.

[clinicaltrials.gov/study/NCT00177645?tab=results](https://clinicaltrials.gov/study/NCT00177645?tab=results) (no results posted)

Bakings soda prevents bone loss

Increased acidity in foods (dairy & meat) increases bone loss.  
Baking soda alkalyzes the body & can stop bone loss.

The Endocrine Society. "Calcium And Vitamin D May Not Be The Only Protection Against Bone Loss." ScienceDaily. ScienceDaily, 4 December 2008. <[www.sciencedaily.com/releases/2008/12/081203084314.htm](http://www.sciencedaily.com/releases/2008/12/081203084314.htm)>.

**Treatment with Potassium Bicarbonate Lowers Calcium Excretion and Bone Resorption in Older Men and Women.** *Journal of Clinical Endocrinology & Metabolism*, January 2009

USDA/Agricultural Research Service. "Neutralizing Acidosis And Bone Loss Among Mature Adults." ScienceDaily. ScienceDaily, 11 February 2009. <[www.sciencedaily.com/releases/2009/01/090131124439.htm](http://www.sciencedaily.com/releases/2009/01/090131124439.htm)>.

GERD, kidney disease, kidney stones, gout, canker sores

Baking soda may also help GERD (reflux), canker sores, gout, damaged kidneys, & reduce one type of kidney stones, without increasing blood pressure.

Ione de Brito-Ashurst , Mira Varagunam , Martin J. Raftery , and Muhammad M. Yaqoob. **Bicarbonate Supplementation Slows Progression of CKD and Improves Nutritional Status.** *Journal of the American Society of Nephrology*, 2009; DOI: [10.1681/ASN.2008111205](https://doi.org/10.1681/ASN.2008111205) American Society of Nephrology. "Baking Soda: For Cooking, Cleaning, And Kidney Health?." ScienceDaily. ScienceDaily, 17 July 2009. [sciencedaily.com/releases/2009/07/090716201123.htm](http://sciencedaily.com/releases/2009/07/090716201123.htm)

[sciencedaily.com/releases/2018/06/180601134720.htm](https://sciencedaily.com/releases/2018/06/180601134720.htm)

Sebastian Hultin, Chris Hood, Katrina L. Campbell, Nigel D. Toussaint, David W. Johnson, Sunil V. Badve,  
A Systematic Review and Meta-Analysis on Effects of Bicarbonate Therapy on Kidney Outcomes, *Kidney International Reports*, Volume 6, Issue 3, 2021, Pages 695-705, ISSN 2468-0249,  
[doi.org/10.1016/j.ekir.2020.12.019](https://doi.org/10.1016/j.ekir.2020.12.019).  
[sciencedirect.com/science/article/pii/S2468024920318520](https://sciencedirect.com/science/article/pii/S2468024920318520)

## Exercise endurance

Baking soda supplementation appears to help exercise and endurance, especially with higher intake levels & more intense exercise. Pro athletes use it 45 min before an athletic event to increase their endurance (& reduce inflammation). I take a tablespoon of baking soda with water (being alkaline/base it counters lactic acid & increases endurance) and some cordyceps mushroom a half hour (under tongue) to two and a half hours (orally) before exercise. They both have been shown to increase athletic performance. Baking soda appears to work by buffering the lactic acid buildup during the workout.

Effects of sodium bicarbonate ingestion on anaerobic performance: a meta-analytic review. (PMID:8388767) Matson LG, Tran ZV School of Kinesiology & Physical Education, University of Northern Colorado, Greeley 80639. International Journal of Sport Nutrition [1993, 3(1):2-28]

Sodium bicarbonate improves swimming performance. (PMID:18004687) Lindh AM, Peyrebrune MC, Ingham SA, Bailey DM, Folland JP School of Sport and Exercise Sciences, Loughborough University, Loughborough, United Kingdom. International Journal of Sports Medicine [2008, 29(6):519-523] DOI: 10.1055/s-2007-989228

BioMed Central. "Bicarbonate adds fizz to players' tennis performance." ScienceDaily. ScienceDaily, 27 October 2010. <[www.sciencedaily.com/releases/2010/10/101025221739.htm](http://www.sciencedaily.com/releases/2010/10/101025221739.htm)>.

Ching-Lin Wu, Mu-Chin Shih, Chia-Cheng Yang, Ming-Hsiang Huang and Chen-Kang Chang. **Sodium bicarbonate supplementation prevents skilled tennis performance decline after a simulated match.** *Journal of the International Society of Sports Nutrition*, 2010; (in press) [[abstract](#)]

Kidney recovery & protection

Taking baking soda (sodium bicarbonate) when bicarbonate levels get low during kidney disease may improve kidney function & reduces progression to dialysis by 500%. Low bicarbonate levels are associated with early death in the elderly. It is used to balance the acidity of the blood according to the British Medical Journal

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group. According to the National Kidney Foundation, baking soda and water in place of saline may also protect the kidneys from radiocontrast dye in imaging. Baking soda used for medical treatment doesn't appear to increase blood pressure.

[alienherbalist.com/kidneys](http://alienherbalist.com/kidneys)

## Baking soda helps crush syndrome

Taking baking soda and mannitol may help stop myoglobin buildup that can lead to kidney failure in people whose limbs are trapped under rubble, sometimes called crush syndrome.

Early and intensive fluid replacement prevents acute renal failure in the crush cases associated with spontaneous collapse of an apartment in Konya.

Altintepe L, Guney I, Tonbul Z, Türk S, Mazi M, A?ca E, Yeksan M.  
Ren Fail. 2007;29(6):737-41.

[articles.mercola.com/sites/articles/archive/2016/09/10/baking-soda-for-earthquake-survivors.aspx?utm\\_source=dnl&utm\\_medium=email&utm\\_content=ar](http://articles.mercola.com/sites/articles/archive/2016/09/10/baking-soda-for-earthquake-survivors.aspx?utm_source=dnl&utm_medium=email&utm_content=ar)

[statnews.com/2016/08/25/earthquake-crush-syndrome](http://statnews.com/2016/08/25/earthquake-crush-syndrome)

## Baking soda to treat overdose

Baking soda is used to treat many poisonings or overdoses involving drugs that block voltage-gated sodium channels including benzotropines (valium), cyclic antidepressants (amitriptyline), organophosphates, methanol, diphenhydramine (Benadryl), beta blockers (propranolol), barbiturates, salicylates (Aspirin), cocaine, quinidine, procainamide, flecainide, mexiletine, and bupivacaine—helping to stop intraventricular conduction defects, myocardial depression, bradycardia, and ventricular arrhythmias.

Baking soda appears to reduce mortality after coronary angiography

Dye injection can cause contrast-induced nephropathy (CIN), which sodium bicarbonate protects against.

Brown JR, Pearlman DM, Marshall EJ, Alam SS, MacKenzie TA, Recio-Mayoral A, Gomes VO, Kim B, Jensen LO, Mueller C, Maioli M, Solomon RJ. Meta-Analysis of Individual Patient Data of Sodium Bicarbonate and Sodium Chloride for All-Cause Mortality After Coronary Angiography. *Am J Cardiol*. 2016 Nov 15;118(10):1473-1479. doi: 10.1016/j.amjcard.2016.08.008. Epub 2016 Aug 24. PMID: 27642111; PMCID: PMC6579735.

American College of Cardiology. "Sodium Hydration Therapies Equally Effective." *ScienceDaily*. ScienceDaily, 3 April 2007. <[www.sciencedaily.com/releases/2007/03/070326120919.htm](http://www.sciencedaily.com/releases/2007/03/070326120919.htm)>.

### Eye diseases

Baking soda may reduce the development of many types of eye diseases & improve vision tracking of movement.

Teresa Duda, Xiao-Hong Wen, Tomoki Isayama, Rameshwar K. Sharma, Clint L. Makino. **Bicarbonate Modulates Photoreceptor Guanylate Cyclase (ROS-GC) Catalytic Activity**. *Journal of Biological Chemistry*, 2015; jbc.M115.650408 DOI: [10.1074/jbc.M115.650408](https://doi.org/10.1074/jbc.M115.650408)

Massachusetts Eye and Ear Infirmary. "A pinch of baking soda for better vision?." *ScienceDaily*. ScienceDaily, 17 March 2015. [sciencedaily.com/releases/2015/03/150317200007.ht](http://sciencedaily.com/releases/2015/03/150317200007.ht)

### Teeth

Brushing with baking soda appears safe & reduces plaque on teeth.

## Poison ivy/oak/sumac

Putting baking soda on poison ivy rash (then scratching with it) can help absorb the urushiol oil, stop its spread & reduce itchiness.

Dosage- On the box of Arm & Hammer baking soda it recommends 1/2ts every two hours with water for heartburn as needed. Most people start with 1/8th ts an hour after or a half hour before a meal or longer & work up to 1/4 teaspoon multiple times a day. Baking soda intake should be lowered if it triggers irregular heartbeat, especially in people taking drugs that may cause the heart to skip a beat (prolong QT, Torsades De Pointes-TDP).

[peoplespharmacy.com/articles/what-is-the-right-dose-of-baking-soda](http://peoplespharmacy.com/articles/what-is-the-right-dose-of-baking-soda)  
[crediblemeds.org/pdftemp/pdf/CompositeList.pdf](http://crediblemeds.org/pdftemp/pdf/CompositeList.pdf)

## Potassium bicarbonate

If people have any problems with sodium bicarbonate, potassium bicarbonate is often used for many of the same benefits including alkalinity.

Schwalfenberg GK. The alkaline diet: is there evidence that an alkaline pH diet benefits health? J Environ Public Health. 2012;2012:727630. doi: 10.1155/2012/727630. Epub 2011 Oct 12.

PMID: 22013455; PMCID: PMC3195546.  
[ncbi.nlm.nih.gov/pmc/articles/PMC3195546/](https://ncbi.nlm.nih.gov/pmc/articles/PMC3195546/)

[verywellhealth.com/potassium-bicarbonate-overview-4582174](https://verywellhealth.com/potassium-bicarbonate-overview-4582174)

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**Category**

1. Uncategorized

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