

## Guillermou

As we know, the intestinal microbiome, where billions of microorganisms are grouped, forms a complex ecosystem, and dysbiosis or certain intestinal bacteria are directly or indirectly related to intestinal diseases, metabolic syndromes and neurological disorders. Intestinal bacteria participate in the regulation of host health through the biosynthesis of various essential nutrients, such as amino acids and vitamins, as well as biologically active components such as short-chain fatty acids (SCFAs) such as butyrate by regulating intestinal peristaltic movement, the function of the epithelial barrier and the immune system.

These functions exert protective effects against several diseases such as colorectal cancer, inflammatory bowel disease, diabetes and obesity. This study examined the importance of nutrients, in addition to dietary fiber, in the survival of gut bacteria in highly health-conscious populations. We found that vitamin B1, which is an essential nutrient for humans, had a significant effect on the survival and competence of bacteria in the symbiotic gut microbiota. In particular, sufficient dietary vitamin B1 intake affects the relative abundance of Ruminococcaceae, and these bacteria have been shown to require dietary vitamin B1.

An inverse correlation was also discovered between dietary vitamin B1 intake and the appearance of chronic constipation. A possible explanation for this phenomenon is that the consumption of vitamin B1 in the diet is related to the softening of stools and a greater occurrence of colonic peristalsis.

[www.mdpi.com/.../2078](http://www.mdpi.com/.../2078) (2022).-- [www.ncbi.nlm.nih.gov/.../NBK482360](http://www.ncbi.nlm.nih.gov/.../NBK482360) (2024).--

[www.sciencedirect.com/science/article/abs/pii/S0304541222003109](http://www.sciencedirect.com/science/article/abs/pii/S0304541222003109) (2022).--

[www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2024.13..](http://www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2024.13..) (2024).--

[www.ncbi.nlm.nih.gov/.../PMC11100033](http://www.ncbi.nlm.nih.gov/.../PMC11100033) (2024).--

Posted On 05/29/2024

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In this review, the current knowledge on the interaction between gut microbiota and B vitamins nutrition is summarized (Figure 2) to infer the consequences of probiotic supplementation, which could be useful to optimize probiotic treatment. B vitamins act as essential micronutrients for humans. The absorption process of multiple dietary B vitamins requires the help of many transporters, which typically occurs in the small intestine (Table 1). At the same time, the intestinal microbiota not only acts as a producer and/or consumer to modify vitamins B supplementation in the intestine (Table 2), but also affects the absorption of vitamin B by altering the physiological or pathological factors of the gastrointestinal tract.

(Table 3). As cofactors of multiple enzymes, supplementation with B vitamins can change the diversity, abundance, and functions of the gut microbiota (Table 4) from the first link. These actions on the modulating effects of group B vitamins on the intestinal microbiome, focusing on their potential role as prebiotic candidates in the following link.-----[www.frontiersin.org/.../full](http://www.frontiersin.org/.../full) (2022).-----  
----- [www.mdpi.com/.../1168](http://www.mdpi.com/.../1168) (2022).-----  
[www.sciencedirect.com/science/article/abs/pii/S0022316623728277](http://www.sciencedirect.com/science/article/abs/pii/S0022316623728277) (2024).-----

Posted On 05/29/2024

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## Hartosgirl

Can you give some information on the differences between regular (water-soluble) B1 thiamine vs fat-soluble B1, benfotiamine? Thank you!

Posted On 05/29/2024

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Glycation is the pathologic binding of a sugar molecule to the body's proteins or lipid molecules resulting in the formation of nonfunctioning tissue structures. The lens of the eye is especially vulnerable to this type of degeneration. Some of the nutrients that help to inhibit glycation include carnosine, benfotiamine, glutathione, and activated forms of vitamin B6 (pyridoxal-5-phosphate). Benfotiamina is the fat-soluble form of Vitamin B1, which allows it to pass the cell membranes. Advanced glycation plays a fundamental role in the processes of normal aging and diabetes, as is the case of cataracts. The combination of Benfotiamine / Beta Carotene salts is indicated for the treatment of prevention of complications of diabetes, asthma symptoms, cancers, heart disease, cataracts and other conditions.

[thebenfotiamineproject.com/.../](http://thebenfotiamineproject.com/.../)- [examine.com/.../](http://examine.com/.../)- [www.thieme-connect.com/products/ejournals/abstract/10.1055/s-2001-1739..](http://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-2001-1739..)

[www.theorthoticgroup.com/documents/NeuRemedy/The%20multifaceted%20ther..](http://www.theorthoticgroup.com/documents/NeuRemedy/The%20multifaceted%20ther..)

[www.realfoodnutrients.com/Neuropathy/Studies/BenfotiamineBlocksThreeMa..](http://www.realfoodnutrients.com/Neuropathy/Studies/BenfotiamineBlocksThreeMa..) Benfotiamine, a lipid-soluble thiamine derivative, is the most potent allithiamine found in roasted garlic as well as other herbs in the genus Allium..

In addition to the potent antioxidant properties, benfotiamine has also been shown to be a strong anti-inflammatory agent with therapeutic importance for various pathological complications. Specifically, over the last decade, benfotiamine has been shown to prevent not only several secondary diabetic complications, but also several inflammatory complications such as uveitis and endotoxemia. Recent studies also show that this compound could be used to prevent symptoms associated with several infectious diseases such as HIV and COVID-19. [europepmc.org/.../35535731](http://europepmc.org/.../35535731) (2022)

Posted On 05/29/2024

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## looking4wisdom

Hello Guillermo. Do you know how to contact Dr Mercola? In a recent interview, I saw that he has cancer patients but does not take those that have chemo. I have been searching for a doc for 3 months. I thought those in the FLCCC study would not suggest chemo but the one I pre-paid does recommend it. Thank you, M Johnson

Posted On 05/29/2024

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## grulla

@ "L4W" You might try contacting the Integrative Medical Center in Las Cruces, NM that was run by the father/son MD team of Drs. Burt M. Berkson and son Dr. Arthur Berkson. They require advanced sign-up application. Sadly, Dr. Burt passed away last March but Dr. Art is currently carrying on the burden, and if I understand correctly, he is looking to hire a qualified integrative doctor to replace his late Phd MD father. <https://drberkson.com/>

Posted On 05/29/2024

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## Guillermou

Vitamin B9 (folate) is a micronutrient for the synthesis and functional regulation of many biomacromolecules in humans. Vitamin B9 could transfer carbon units in methylation reaction, DNA and RNA biosynthesis and amino acid metabolism. Megaloblastic anemia is one of the most common symptoms of vitamin B9 deficiency. The main reason for this disease is the inhibition of the maturation of erythropoietic precursors. Lack of vitamin B9 is also correlated with neural tube defects. Furthermore, vitamin B9 insufficiency is associated with the pathogenesis of several chronic diseases, including cardiovascular diseases, cancers (colorectal, prostate and breast), and Alzheimer's disease.

The gut microbiota also plays a valuable role in the production and consumption of vitamin B9. According to an evaluation of human gastrointestinal bacterial genomes, 13.3% of bacteria possess the capacity for de novo synthesis of vitamin B9 and 39% could produce vitamin B9 with additional para-aminobenzoic acid provided by other bacteria or foods. It is also reported that 26% of Actinobacteria, 71% of Proteobacteria, 79% of Fusobacteria and 15% of Firmicutes in human gut microbes have the potential to de novo synthesize vitamin B9.

A systematic genome-wide evaluation of the vitamin B family suggested that the human intestinal microorganism is capable of producing 37% of the daily required vitamin B9 in non-pregnant adults. Folate-producing strains have been extensively analyzed to strengthen the vitamin content. *Latilactobcillus sakei* LZ217, a good producer of vitamin B9, has been isolated from raw milk.

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Vitamin B9-producing strains of 12 lactic acid bacteria were also examined and then obtained their variant, *Lactobacillus plantarum* GSLP-7 V after being stressed with drugs. Based on a rat model of vitamin B9 deficiency induced by a vitamin B9-free diet, they further demonstrated that GSLP-7 V and its fermented yogurt could restore serum vitamin B9 and homocysteine (Hcy) to normal levels. Taken together, the microbiome has beneficial potential in the treatment of vitamin B9 deficiency. Another study noted that 86% of the 512 bacterial reference genomes investigated required vitamin B9 or its intermediates from food or other microbiota.

A vitamin B9-supplemented diet slightly increased gut bacterial community richness based on abundance-based coverage estimator compared to a vitamin B9-deficient diet in the mouse model of obesity. Vitamin B9 may also influence the amount of SCFAs in the gastrointestinal tract. There was more acetic acid and valeric acid in the cecum and colon of weaned piglets fed vitamin B9 supplements. It was shown that probiotics produced by vitamin B9, *L. sakei* LZ217, could increase the content of SCFAs, especially propionic acid and butyric acid in fecal suspension cultures.

[www.frontiersin.org/.../full](http://www.frontiersin.org/.../full) (2022).--

Posted On 05/29/2024

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## Pat Bell Smith

GUI..what fiber rich foods do you recommend for gut flora?

Posted On 05/29/2024

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**nat3939**

@ Hartosgirl, Both B1's are carbohydrate and sugar metabolizers, both give energy production, both can increase heart pumping functions as needed, both help with eye health as presbyopia, (Presbyopia is physiological insufficiency of accommodation associated with the aging of the eye that results in progressively worsening ability to focus clearly on close objects. Also known as age-related farsightedness). The bottom line is that the water-soluble thiamine last just a few hours, and the fat-soluble benfotiamine last a great deal longer to do the important jobs needed before the b1 vitamin is used up in the body.

Posted On 05/30/2024

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## Guillermou

Hi Pat Bell Smith, especially fiber from foods low in omega 6, rich in polyphenols and vitamins such as low-starch fruits and vegetables, if you do not have metabolic flexibility, gluten, lectins and oxalate and other antinutrients. Leaky gut causes the release of bacterial metabolites and endotoxins, such as lipopolysaccharide, into the circulation, causing bacterial infections, oxidative stress. Diet rich in polyunsaturated fats, exposure to alcohol or chronic allergens, and dysbiosis are highly related to development and/or progression. of several systemic metabolic and autoimmune diseases, neurodegenerative disease, cardiovascular disease, inflammatory bowel disease, cancer and the development of metastases.

Increases in blood endotoxin levels were associated with increases in C-reactive protein concentrations and increases in intestinal permeability markers such as zonulite. Probiotics help modify the intestinal microbiota, promote the growth of beneficial bacteria and are an alternative source of SCFAs and reduce LPS expression, intestinal inflammation and tumor size in CRC. Among them, Akkermansia muciniphila has the ability to reduce the expression of LPS, improving metabolic endotoxemia.

[www.mdpi.com/.../267](http://www.mdpi.com/.../267) (2023).-- [www.sciencedirect.com/.../S002231662304525X](http://www.sciencedirect.com/.../S002231662304525X) (2023).-  
[www.mdpi.com/.../3706](http://www.mdpi.com/.../3706) (2023).- [www.cghjournal.org/.../S1542-3565\(22\)01110-7/fulltext](http://www.cghjournal.org/.../S1542-3565(22)01110-7/fulltext) (2023).-  
[www.mdpi.com/.../267](http://www.mdpi.com/.../267) (2023).- [www.sciencedirect.com/.../S002231662304525X](http://www.sciencedirect.com/.../S002231662304525X) (2023)  
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[link.springer.com/.../s11739-023-03374-w](https://link.springer.com/.../s11739-023-03374-w) (2024).-- [onlinelibrary.wiley.com/.../eci.14224](https://onlinelibrary.wiley.com/.../eci.14224) (2024).---  
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Posted On 05/30/2024

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## josephunger

I hate to drone on here but my story about thiamine may be of value to someone else. My dearest Kitty, Jasmine, woke up one morning unable to stand. Staggered like a drunken sailor and body slammed within 1 to 2 steps. I have always used good diet as the best medicine for my animal friends along with other therapies but nothing worked this time. The brilliant vet performed a neurological examination and then asked me what kind of food we gave her. She was well up in years and adopted us as a starving feral cat in the woods. Her mother found that she liked raw fish and for many months that was the bulk of her diet. She loved it and sounds nutritious, does it not?

The vet exclaimed "you cannot do that!". I was puzzled and she explained that raw fish has thiaminase, which is an enzyme that breaks down Thiamine. ( Later a colleague pointed out that we had learned this in nutrition class but I had evidently forgotten it along with many other things the past 50 years) The vet stated she had heard of this but had never seen a case. Went back to the books and looked up treatment given Jasmine's size, weight etc. The prescription was 100 mg daily and expect changes beginning in a few weeks. I did not have B-1 readily available but had a whole food B complex concentrate on hand that had 0.5 mg of thiamine.

(1/200th the recommended dose) The very next morning she was remarkably improved. Within a week, you could not tell that she had a problem unless you knew what to look for. Lesson number one, avoid a total raw fish diet. Number two, whole food concentrates are thought by many to provide an array of nutrients that are far more effective than the chemical isolates most commonly available. Not only do they whole food concentrates have the balanced complex of nutrients, but also often have factors and co-factors that have not been identified as of yet by traditional science. This experience was enlightening to me and I hope it helps somebody else.

Posted On 05/29/2024

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## ela3783

Very very useful Josephunger! Very enlightening too about the how a simple change in diet can be a turnaround . I want aware that all raw fish have thiaminase ? Had read about anchovies being high and generate B1 deficiency in bigger fish who consume those

Posted On 05/29/2024

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## Guillermou

Very true josephunger. The presence of antithiamine factors (ATF) in foods contributes to the risk of thiamine deficiency. Certain plants contain ATF, which reacts with thiamine to form an oxidized, inactive product. Consuming large amounts of tea or coffee (including decaffeinated), as well as chewing tea leaves and betel nuts, could reduce the level of thiamine due to the presence of ATF. ATFs include mycotoxins (molds) and thiaminases that break down thiamine in foods. People who regularly eat certain freshwater fish, raw shellfish, or raw ferns are at increased risk of thiamine deficiency because these foods contain thiaminase that is normally inactivated by heat during cooking.

[pubmed.ncbi.nlm.nih.gov/22436368](https://pubmed.ncbi.nlm.nih.gov/22436368) .--- [pubmed.ncbi.nlm.nih.gov/803009](https://pubmed.ncbi.nlm.nih.gov/803009) .---

Posted On 05/29/2024

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## Darwina

I find food concentrates are much better for me. For some reason I can't tolerate any vitamin b supplements but eating liver causes no problems at all.

Posted On 05/29/2024

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## nat3939

The Amino acid taurine, as an essential nutrient for cats, is especially beneficial for maintaining their eyesight.

Posted On 05/30/2024

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I'm assuming canned (cooked) fish doesn't present this problem? I have been giving my cats a raw chicken liver every week or so, cut into cubes for them. They LOVE it. I'm hoping that is not harmful, it being raw. I also will give them any raw fat cut off our chicken/beef/pork. Comments welcome and probably others want to know too.

Posted On 05/30/2024

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## Alro

Did not have The option to reply to someone who mentioned cancer. I stumbled across this 2 years ago and have been telling everyone I know about it and posting it on YouTube. Whenever I post about this on YouTube, my comment gets deleted. I'm hoping that that can't possibly be the case on this site run by my hero Dr mercola. Anti-parasitics absolutely blast cancer. Fenbendazole alone but turbo charged when ivermectin is added. ( The addition of ivermectin is based on a paper I read on the NIH website). I've been following Dr mercola since the early 2000s. I've always been interested in this field regardless.

So, when I stumbled across a video of a new story on a mainstream media affiliate of one of the main networks, I was stunned. I have since downloaded the video because I'm afraid to even post a link to it in case it gets deleted. Quick summary: The gentleman who was the subject of the video was given two months to live, did extensive research, went to the pet supply store and bought antiparasitic fenbendazole, Cancer gone in 2 months. When they did the news story on him he had helped 40 other people with terminal diagnoses and started a website with free advice/research etc.

Fenbendazole.org. Please validate and verify everything for yourself. Based on everything I have read, I no longer fear cancer. Note that one of the suppliers that they recommend had product on Amazon with thousands of reviews. I think they may be periodically removing the listing since I'm sure Amazon is getting pressure and bezos maybe getting pressure or maybe as part of the cabal, who knows. Maybe he's a neutral player. I have no idea I just know that those thousands of reviews were gone the last time I looked. This stuff is dirt cheap too. The only downside is the extreme bloating.

Posted On 05/29/2024

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## Guillermou

Also: IVERMECTIN HAS AT LEAST 15 ANTI-CANCER MECHANISMS OF ACTION. CAN IT TREAT COVID-19 MRNA VACCINE-INDUCED TURBO CANCERS? IVERMECTIN INDUCES TUMOR CELL DEATH: APOPTOSIS, AUTOPHAGY, PYROPTOSIS [www.sciencedirect.com/.../S1043661820315152](http://www.sciencedirect.com/.../S1043661820315152)

Summarize the anti-cancer mechanisms [jlar.rovedar.com/.../21](http://jlar.rovedar.com/.../21)---

- 1) Ivermectin inhibits tumor initiation and tumor progression (via WNT inhibition, YAP1 inhibition)--
- 2) Ivermectin inhibits tumor growth and proliferation (via Akt/mTOR inhibition, MAPK inhibition)---
- 3) Ivermectin stops cancer cell migration, invasion and metastasis (via PAK1 inhibition seen in 70% of all cancers, EMT inhibition, RNA Helicase inhibition)--
- 4) Ivermectin causes cancer cell mitochondrial dysfunction (inhibits mitochondrial biogenesis, increases reactive oxygen species selectively only in cancer cells)---
- 5) Ivermectin regulates tumor microenvironment (to inhibit tumor growth and progression, via P2X7 path, ICD mediates immunogenic cell death)---
- 6) Ivermectin inhibits cancer stem cells (which are responsible for tumor initiation, progression and recurrence)--
- 7) Ivermectin inhibits tumor angiogenesis (tumor blood vessel creation)--
- 8) Ivermectin has anti-mitotic activity (interacts with mammalian tubulin)--
- 9) Ivermectin is an epigenetic regulator of cancer to inhibit cancer progression (alters gene expression to inhibit cancer progression, SIN3A, EMT)--
- 10) Ivermectin can overcome tumor multidrug resistance---

The top 5 COVID-19 mRNA Vaccine Induced Turbo Cancers are: lymphomas, brain cancers, breast cancers, colon cancers and lung cancers (signals also seen in leukemias, hepatobiliary cancers, testicular cancers, sarcomas and melanomas) Ivermectin has been shown to kill these cancer cells (in vitro or in vivo): [www.globalresearch.ca/ivermectin-15-anti-cancer-mechanisms-action-trea..](http://www.globalresearch.ca/ivermectin-15-anti-cancer-mechanisms-action-trea..) (10/02/2023)

Posted On 05/29/2024

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cow79564

Alro...You beat me to it :) I was just going to post about Joe Tippens who CURED his TERMINAL Stage IV Small Squamous Cell Carcinoma. WMIC has NO ANSWER for this Cancer at this stage, period. Fenbendazole is yet ANOTHER Cancer CURE Suppressed for over 40 YEARS! Here's an assortment of interviews, Part 4 is the most recent [templetonwellness.com/survivor-stories/cancer-survivor-joe-tippens/](https://templetonwellness.com/survivor-stories/cancer-survivor-joe-tippens/) & here's Joe's Website [www.mycancerstory.rocks](http://www.mycancerstory.rocks) More Suppressed CANCER CURESTy & Charlene Bollinger's "The Truth About Cancer: A Global Quest" (Multi Series Documentary) They travelled the World speaking with MD/DO's/Natural Paths that are actually successful at Curing Cancer.

[www.brighteon.com/6a66386d-e948-4326-bb78-d7a5a4b19823](https://www.brighteon.com/6a66386d-e948-4326-bb78-d7a5a4b19823) Part I Dr. Burzynski's Phenomenal Documentary "A Cancer CURE 40 YEARS Ago" [www.bitchute.com/.../emxyM88r4NzO](https://www.bitchute.com/.../emxyM88r4NzO) Dr. Max Gerson's Gerson Therapy (70+ YEARS Suppressed Natural Cancer Cure) Excellent Documentary "The Beautiful Truth" [www.bitchute.com/.../FkwaqdSNlpZ2](https://www.bitchute.com/.../FkwaqdSNlpZ2) Elaine Hollingsworth's Black Salve/Cansema (Suppressed 40+ Years Natural Cancer Cure) Excellent documentary "One Answer to Cancer" [www.bitchute.com/.../F82ptHNLvEtd](https://www.bitchute.com/.../F82ptHNLvEtd) Rick Simpson's RSO Cannabis Oil THC18%+ (Suppressed Natural Cancer CURE 125+ YEARS) Excellent documentary "Run from the Cure" [www.bitchute.com/.../KDqzNFNZGdci](https://www.bitchute.com/.../KDqzNFNZGdci) Mr. Edward Griffin Laetrile/Amygdalin/Vitamin B-17 (Suppressed Natural Cancer CURE 45+ Years) Great Documentary "World Without Cancer: The Story of Laetrile" [rumble.com/v2og4xg-g-edward-griffin-world-without-cancer-the-story-of..](https://rumble.com/v2og4xg-g-edward-griffin-world-without-cancer-the-story-of..) Also research Essiac Tea, Hoxsey Formula (60+ Years Suppressed Natural Cancer CURES).

Rigvir Therapy/Rlga Virus developed in 80's Cancer CURE in Latvia, 100's-1,000's of studies done on this medical intervention. GcMAF- The late Dr. Jeffrey Bradstreet who Cured Cancers & Autism & was killed by the FDA/WMIC for doing so. Hope this Helps

Posted On 05/29/2024

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## MysticTuba

I suspect that mebendazole will work as well, since it is so similar to fenbendazole. Both meb and iver are available from alldaychemist. They take a while to get here, but so far my orders have not been seized (I am currently waiting for a re-order of alinia.) I took meb for a year (on the Kalcker protocol) when I was doing the Rivera protocol when I had CIRS (really was a game changer.) The Kalcker protocol is available separately if you don't need the chlorine dioxide (but I did need it; my eyes changed color over a year from more green to more blue. That is not a common occurrence.) I took a lot of iver during the plandemic, and am pretty sure if I ever even approach getting cancer I will pretty easily overcome it. I did not bloat on mebendazole; I passed handfuls of ascaris worms --- if you have worms and they die, that could cause bloating. If you then digest them, that produces a very singular odor in your poop. Been there, done that.

Posted On 06/03/2024

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## ela3783

Couple of years ago someone shared a very informative blog called Hormones Matters . It was very comprehensive in detailing how common is B1 deficiency due to our present day diet from modern farming as well as taking inactive form of B1 in most supplement formulations . He wrote that synthetic B vitamins can bind receptors with high efficiency and can prevent the active dietary forms from binding thereby generating a B1 deficiency . So now I recommend friends to first swallow the active form before taking the inactive form via supplements . Not sure if this way will help prevent the inactive form binding but worth considering since many friends don't want to throw away their vitamins if not expired ( I emptied all mine in the vegetable garden those that expire or have inactive forms )

Posted On 05/29/2024

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## Maritt

Indeed. Dr Derrick Lonsdale and Chandler Marrs - book: Thiamin deficiency disease, dysautonomia and high calorie malnutrition; website <https://www.hormonesmatter.com/navigating-thiamine-supplements>

Posted On 05/30/2024

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## MysticTuba

Those who have been "moxxed" (poisoned by metronidazole) often find that they are extremely deficient in B1. The conclusion is that flagyl displaces B1 and produces a symptom set that is identifiable as "mild beri beri" but not the clinically recognized beri beri. They reverse their condition by taking quite large doses of B1, and many have concluded that it is low B1 that causes the "moxxed" symptoms because of flagyl's anti-B1 action. Those who take flagyl and do not get "moxxed" possibly have large enough stores of B1 that the theft of it doesn't pull them down.

Posted On 06/03/2024

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## juststeve

Once again we can see a healthy gut is a foundation for many things. In this case our own gut making B vitamins, but, properly grown foods affording all the materials needed to do so is also necessary. A full spectrum of nutritionally dense foods can't be absorbed without a healthy spectrum of bacteria to process them. The bacteria's needed can't survive without the proper foods to feed them. People end up in line for a bag of pills to dampen the warning signs of symptoms. The B vitamins address a very wide range to support prevention of Dis-eases of all kinds. It is interesting to see how alcohol can disrupt such as in the past an individual was known who had a nurse tell him, (and he was a Bonafide alcoholic,) a hangover cure was to take a Vita B complex. He said he found it worked, but, he didn't like it shut down his urges to drink.

Posted On 05/29/2024

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## Guillermou

Just, laughter also helps intestinal health "He said he found it worked, but, he didn't like it shut down his urges to drink." Laughter yoga is an exercise that combines mindfulness, breathing, and intentional laughter to promote well-being. It was created by Dr. Madan Kataria, a family doctor in Mumbai, India, in 1995 and has since spread to thousands of laughter clubs around the world. "I can't start the day without laughing. I have to do it when I shower, when I brush my teeth, I drive early in the morning when I go to work; It's great," says Tita Begashaw, a laughter coach who runs the Tee Hee Hee laughter yoga class in Harborview.

Medical Center . Laughter is an aerobic exercise for the heart and lungs that relieves stress, stimulates the immune system, increases oxygen intake, improves digestion, reduces anxiety and pain, and improves mood. "I think everyone has a laugh inside. We just have to remind them and laugh with them," says Begashaw. [rightasrain.uwmedicine.org/.../laughter](https://rightasrain.uwmedicine.org/.../laughter)

Posted On 05/29/2024

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## bchristine

I take a Super-B complex manufactured by Pure Synergy. The B-1 and B-2 amounts are 25 mg each -- much much higher than what is recommended here. They are cultured in a fermented food matrix ... are these amounts too high?

Posted On 05/29/2024

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## ela3783

Many thanks Dr Mercola and GUI for this article and the additional comments . The active forms - TPP or TTFD are recommended over the Hydrochloride form to prevent increase in deficiency in those who cannot easily convert the non active form usually used in formulations Metabolics ,Think above and PureTherapro companies are few who have active form of all B vitamins in their formulations

Posted On 05/29/2024

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## Guillermou

Yes, thiamine occurs in the human body as free thiamine and in various phosphorylated forms: thiamine monophosphate (TMP), thiamine triphosphate, thiamine adenosine triphosphate, and thiamine pyrophosphate (TPP), which is also known as thiamine diphosphate. . The synthesis of TPP from free thiamine requires magnesium, adenosine triphosphate (ATP), and the enzyme thiamine pyrophosphokinase. In humans, TPP is required as a coenzyme in the metabolism of carbohydrates and branched-chain amino acids. Forms of thiamine are also required for ribose synthesis and for -oxidation of 3-methyl branched fatty acids. [lpi.oregonstate.edu/.../thiamin](http://lpi.oregonstate.edu/.../thiamin)

Posted On 05/29/2024

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## and328931

You mention Folic acid which I had a deficiency in from going modified Keto. My bloodwork showed RCV around the minimum and some misshapen blood cells. It turns out that Folic acid is added to most processed foods as the natural Folic acid is lost in processing. Since it is important in the creation of red blood cells and I'm a very fussy eater, I needed to supplement. My last bloodwork showed less misshapen cells but I understand that it takes up to 4 months for the full effect. This is something that anyone considering cutting out all processed foods needs to know, especially if they are a fussy eater like me!

Posted On 05/29/2024

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## Guillermou

Folate is undeniably a vital component of the human diet, its deficiency causing impairment of many metabolic processes. In modern society with increased availability and access to folic acid, hypertoxicity rather than deficiency may become a problem with voluntary food fortification, high availability of low-cost folic acid supplements. Adding folic acid to cereals can cause many undesirable effects. Adverse effects. These adverse effects can affect multiple areas of public health, with studies suggesting that high folic acid intake may, under certain conditions, promote cancer, interact with medications, and impair fetal development.

Studies in mice have shown more sinister impacts, suggesting that high levels of folic acid have serious detrimental consequences by causing epilepsy and liver damage. Folic acid administered in the presence of preneoplastic cells increases their proliferation and cell growth. High serum folic acid levels caused tumor cells to divide at a higher rate, allowing for higher rates of nucleotide synthesis. Observational research carried out in Chile showed that after folic acid fortification was implemented in this country, there was a 162% increase in colorectal cancer in the 45 to 64 year old group and a 192% increase in the 65 to 79 year old group.

compared to the pre-fortification period. Examination Survey Study (NHANES) showing that between 1% and 4% of the US population is exceeding the tolerable upper limit of folic acid of 1 mg per day, after flour fortification, there is an area of concern that folic acid fortification has contributed to increased cancer risk in the US population.

Posted On 05/29/2024

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## Guillermou

The increased risk of prostate cancer in older men may be due to too much folic acid. Since the adverse effects of excessive folic acid intake on cancer are still being investigated. In another study, intake of vitamin B-6 and riboflavin through diet and supplements was associated with a lower risk of colorectal cancer (CRC) in postmenopausal women, but increased folic acid intake during the post-fortification period. may have been associated with a transient increase in CRC risk. The literature highlights possible harmful effects, such as an increased risk of carcinogenesis; alteration in DNA methylation; and impacts on embryogenesis, pregnancy outcomes, neurodevelopment, and disease risk.

Notably, these consequences go beyond immediate effects and can influence future generations through epigenetic reprogramming. A key message: If excess folate has tumor-promoting effects, those effects are likely to outweigh any beneficial effects of folic acid supplementation on mutation rates, and cancer rates are predicted to increase.

[aacrjournals.org/cebp/article/17/6/1360/177611/Does-Folic-Acid-Supplem..](https://aacrjournals.org/cebp/article/17/6/1360/177611/Does-Folic-Acid-Supplem..) (2008).-----

[www.ncbi.nlm.nih.gov/.../PMC3545682](https://www.ncbi.nlm.nih.gov/.../PMC3545682) (2012).--- [www.researchgate.net/profile/Agata-Sobczynska-Malefora/publication/309..](https://www.researchgate.net/profile/Agata-Sobczynska-Malefora/publication/309..) (2016). - -- [www.mdpi.com/.../4699](https://www.mdpi.com/.../4699) (2023).----

Posted On 05/29/2024

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## Antisandman

Sun penetration can destroy folate. That is likely why there are no indigenous paleface tribes in the tropics. If you are a paleface that spends time in the sun, folate supplementation is a necessity. I am a paleface that lives in Ecuador. I supplement with B vitamins and extra folate.

Posted On 05/29/2024

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## **Bjeans.scott**

Folic Acid is synthetic. Side effects can happen with too much. Dr Mercola recently wrote about this in a newsletter. Better to take folate Many supplements have tons of folic acid in them. Just discovered that about my multilingual vitamin b & multi. Watch for this on your vitamins.

Posted On 05/29/2024

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## **Kim08**

@Guillermou, I've read the benefit of Ivermectin for cancer before. I have PKD which recent studies show that similar to cancer cysts growth is facilitated by sugar. Do you think Ivermectin might have an effect on cyst growth?

Posted On 05/30/2024

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## **Axmospacemount10**

The formula for thiamine on Wikipedia is  $C_{12}H_{17}N_4O_4S^+$ . There are two types of Benfotiamine out there : sulbutiamine ( $C_{32}H_{46}N_8O_6S_2$ ) and benfotiamine ( $C_{19}H_{23}N_4O_6PS$ ). My experience is most products sold on the internet as Benfotiamine are sulbutiamine. A bulk supplier in Washington state sells the real thing but it costs more than the sulbutiamine. Throwing up prayers. Hail Mary.

Posted On 05/29/2024

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## **MysticTuba**

Is there a reason you didn't mention the name of the bulk supplier? It would be helpful if you did. Maybe there's a rule against it. If so, would you message me with the name? I have tried so many forms of B1 and react badly to all of them.

Posted On 06/03/2024

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## **Axmospacemount10**

Purebulk is the name of the vendor.

Posted On 06/03/2024

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## **BioScan360.ai**

Fascinating as always Dr. Mercola. I find it interesting how my b levels have always been under question in my health journey. Most recently having discovered the Homozygous variant of the Mthfr / 677 TT. I got off folic acid after that and my gut issues of 30 years improved 90% in 48 hours. Including my colon cancer experience and atrial fibrillation which are highly correlated to folic acid issues. I might add and excuse the shameless plug but the MCG Scan that led me to buying an mcg ai scanner is what tipped my doctor off as it exposed my small vessel disease too. Again, thanks for such great articles.

<https://BioScan360.ai>

Posted On 05/29/2024

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## **sea1589**

High-dose Thiamine got rid of my Long Covid symptoms in a couple of weeks. Cognitive function and memory improved. Fatigue and exercise intolerance improved. Mood vastly improved. Gut improved. It's a miracle that is probably needed by many people with mitochondrial dysfunction and stress. I personally took TTFD and Benfotiamine.

Posted On 05/29/2024

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## Guillermou

Congratulations. Also. Over the past decade, benfotiamine has been shown to prevent not only several secondary diabetic complications but also several inflammatory complications such as uveitis and endotoxemia. Recent studies also show that this compound could be used to prevent symptoms associated with various infectious diseases such as HIV and COVID-19. In this review article, the authors discuss the importance of benfotiamine in the prevention of various pathological complications. Recent studies have investigated the potential role of vitamins, specifically vitamins A, B, C, D, and E, in reducing immune and inflammatory responses and complication severity.

[www.tandfonline.com/.../fmc-2022-0040](http://www.tandfonline.com/.../fmc-2022-0040) (2022).--

[www.ingentaconnect.com/content/ben/mrmc/2024/00000024/00000003/art0000..](http://www.ingentaconnect.com/content/ben/mrmc/2024/00000024/00000003/art0000..) (2024).--

Thiamine is capable of improving immune system function and has been shown to reduce the risk of type 2 diabetes, cardiovascular diseases, aging-related disorders, kidney diseases, cancer, mental disorders and neurodegenerative disorders. Thiamine deficiency affects the cardiovascular system, causes neuroinflammation, increases inflammation and leads to aberrant antibody responses.

Since antibodies, and especially T cells, are needed to eliminate the SARS-CoV-2 virus, thiamine deficiency can lead to inappropriate antibody responses and subsequently more severe symptoms. Adequate levels of thiamine help generate adequate immune responses during SARS-CoV-2 infection. In addition, the symptoms of COVID-19 are very similar to altitude sickness and high-altitude pulmonary edema. [www.maturitas.org/.../S0378-5122](http://www.maturitas.org/.../S0378-5122) (20)30348-0/fulltext (2022).-

Posted On 05/29/2024

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## Otorongo

While Dr Mercola listed the foods associated with some of the B's. He did not list all. I really liked the "folate/foliage" reference.

Posted On 05/29/2024

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## mnpearl

My daughter and I became severely B-1 deficient from exposure to toxic mold. Unfortunately, we didn't know that was the problem for a long time. Seems the mold gases are solvents and like alcohol can deplete thiamine.

Posted On 05/29/2024

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## Guillermou

There are a number of common vitamin deficiencies associated with mold toxicity, including vitamin D, magnesium, zinc, coenzyme Q10, and B vitamins. Replacing them will give your body the boost it needs to fight mold. I also recommend oregano oil, probiotics, and activated charcoal to help detoxify. For those who want to read a detailed article, click on the following article: [www.hindawi.com/.../767482](http://www.hindawi.com/.../767482) According to the results obtained, thiamine inhibited aflatoxin production was significantly reduced after treatment of fungi with thiamine. Consequently, the use of natural compounds such as vitamins can be considered as a potential antitoxic agent in the food industry and agriculture-related industries. [www.ncbi.nlm.nih.gov/.../PMC5490319](http://www.ncbi.nlm.nih.gov/.../PMC5490319) .—

Posted On 05/29/2024

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## Olitor

I don't know Vegemite, but I used to eat Marmite and had to stop very quickly because it contained a lot of salt and raised my blood pressure very high.

Posted On 05/29/2024

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## m231231

That first sentence sounds like a usual day here. When I get asked what's so funny and why am I laughing? I reply just standing in front of the mirror dear. Maybe need more B1, eh? Need a hell of a lot more than just B1! Finally reached a long lost friend after 50 years, my high school weight! Thought my eyes were deceiving me. Sprints in 2 hours and 12 hours. Every day , now at 2,150/10,000. Not a 1 per center but a very sad 50 per center. Have lost 50% speed since high school. Sucks. Welcome to join, Shiloh Park, (north park) Plymouth, Mn. Let's go! Exercise sucks but never fails. When I bumped it up from 25 to 50, I didn't think I was going to survive from that near fatal disease called "burning hamstrings." Yikes.

As an 8 year old, going thru the tv channels , I'd laugh at some old man maybe 50 years old in a jumpsuit. Hey everyone is old when you're 8. I'm not laughing anymore as I am now older than he was then. Of course, it was the great Jack Lalanne. Now it's my turn to get laughed at doing my 50 sprints a day by today's kids. Funny how life comes full circle, isn't it? Highly recommend what I call a smart scale. Best deal ever for \$14 or so. Keeps track of 17 categories on app. Who knew there was that many? Sure there are other scale manufacturers but mine is from 5score. Either battery or rechargeable. I don't work for them either.

Posted On 05/29/2024

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## MSRN

Is Thiamine produced by the intestinal bacterial flora? thanks.

Posted On 05/29/2024

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## Guillermou

Yes, but it is not enough. Analyzes of the human gut microbiota predict *Bacteroides fragilis* and *Prevotella copri* (phylum Bacteroidetes); *Clostridium difficile*, some *Lactobacillus* spp. and *Ruminococcus lactaris* (Firmicutes); *Bifidobacterium* spp. (Actinobacteria); and *Fusobacterium varium* are vitamin B1 producers (Table 1), implying that many intestinal bacteria possess a complete vitamin B1 synthesis pathway, including pathways for thiazole and pyrimidine synthesis. In fact, *Lactobacillus casei* produces thiamine during the production of fermented milk beverages, and *Bifidobacterium infantis* and *B. bifidum* produce thiamine in the culture supernatant.

[www.researchgate.net/publication/332467800\\_Metabolism\\_of\\_Dietary\\_and\\_M..](http://www.researchgate.net/publication/332467800_Metabolism_of_Dietary_and_M..)

Posted On 05/29/2024

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