

Relevant and innovative report. Scientific evidence such as that collected in this report informs us that the intestinal microbiota is essential for health. Akkermansia muciniphila is a gram-negative and anaerobic bacteria, a microorganism considered one of the "new generation probiotics". Akkermansia muciniphila has antidiabetic, anti-inflammatory and anti-obesity effects, among others. When A. muciniphila colonizes the intestine, its metabolites interact with the intestinal barrier, affecting host health by strengthening the intestinal barrier, regulating the metabolic functions of the intestinal and circulatory systems, and regulating immune functions.

This action is the most prominent since in these diseases its relationship is inversely proportional to the concentration of this bacteria. It has even been shown that this bacteria is found in higher concentrations in older people, while its concentration is reduced in people with inflammation or chronic diseases. Thus, a lower abundance of Akkermansia has been found in individuals with inflammatory bowel disease, ulcerative colitis or Crohn's disease, showing a clear relationship with intestinal immunity. In patients with acute appendicitis, its severity was inversely correlated with the amount of Akkermansia present.

Likewise, it has been observed that the abundance of said bacteria is lower in individuals with psoriasis. In addition to being related to beneficial effects on intestinal inflammation, the presence of Akkermansia muciniphila can mediate levels of hyperlipidemia and obesity. It has been observed that, in people with high weight and body mass index with high levels of cholesterol and blood glucose (fasting), the abundance of Akkermansia in the intestine is lower than that found in the intestine of people with weight and levels of normal cholesterol and glucose with link to weight loss and its multiple health benefits in obesity and type 2 diabetes.

In a meta-analysis it was reported that inulins, galactooligosaccharides (GOS) and polyphenols stimulate the growth of A. muciniphila) in the intestine. Furthermore, the coexisting microbial communities of A. muciniphila, such as Eubacterium hallii and Bacteroides, exhibited enhanced correlation with A. muciniphila. In a clinical study, it was observed that colonization of the intestine by the probiotic mixture based on Bifidobacterium longum and Lactobacillus rhamnosus increased the presence of Akkermansia muciniphila in the intestinal microbiota. Furthermore, Akkermansia muciniphila is also found in breast milk, transferring to the breastfed infant, which explains its appearance in the infant's intestine during the first stages of life.

The intake of prebiotics (substances resistant to digestion and fermentable by colonic bacteria) such as inulin stimulate the growth of said bacteria. Similarly, foods rich in polyphenols such as pomegranate, blueberry or procyanidins from apples or grapes play an important role in the abundance and maintenance of normal levels of Akkermansia muciniphila in the intestinal microbiota.

. www.gutmicrobiotaforhealth.com/es/akkermansia-muciniphila-la-bacteria-.. (2021).-www.39ytu.com/ucam-capsa/akkermansia-muciniphila-la-bacteria-aliada-de.. (2021).--www.fundacionrenequinton.org/blog/akkermansia-muciniphila-bacteria-sal.. (2021).--www.tandfonline.com/.../1040841X.2022.2037506 (2023).-- www.nature.com/.../s41467-024-47275-8 (2024).-- www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2024.13.. (2024).-www.frontiersin.org/.../full (2024).-pubs.rsc.org/en/content/articlelanding/2024/fo/d4fo00428k/unauth (2024).-www.preprints.org/.../v1 (2024).--

Gut health testing is gaining popularity and it is becoming easier to assess the gut microbiome. According to Rupa Health, the most popular comprehensive stool tests that measure Akkermansia levels are GI MAP from Diagnostic Solutions and GI Effects from Genova Diagnostics. Unfortunately, Akkermansia is not found in food. However, it does eat fiber. While there are many types of foods that contain fiber, research shows that those that best support the growth of Akkermansia are foods rich in polyphenols and prebiotic fibers.

Certain polyphenols are now understood to act as prebiotic sources for beneficial bacterial strains within the gut microbiome, specifically Akkermansia muciniphila. Polyphenols act in the intestine to modify the structure of the intestinal microbial community, resulting in reduced intestinal and systemic inflammation and improved metabolic outcomes. Dietary polyphenols can modulate the composition of gut microbes, and in turn, gut microbes catabolize polyphenols to release bioactive metabolites. Polyphenols from green tea (catechin), grape seed (proanthocyanidins), and pomegranate (ellagic acid) have been shown to support a healthy environment for Akkermansia to thrive in the gut microbiome.

Prebiotic fibers are nondigestible carbohydrates that can help promote the abundance of beneficial bacteria in the intestine. The most common prebiotic foods are garlic, chicory root, onion, tupinambo, bananas and apples. www.rupahealth.com/post/akkermansia-muciniphila-101-everything-you-nee.. (2023).--

Soil degradation is one of the growing problems that affect all living beings on the planet. According to data from the Aquae Foundation an organization that was born in 2013 with the aim of promoting a sustainable model that is respectful of the environment, biodiversity and the dignified and equitable development of people up to 40% of agricultural land worldwide worldwide are deeply degraded. This deterioration, "which occurs due to a combination of human-induced processes," says Aquae, can have different causes: land clearing, industrial and poor agricultural practices, use of off-road vehicles, non-biodegradable garbage dumps or the extraction of stone, sand and minerals, among others.

Another cause of the degradation of agricultural land is "the increase in the size of the field due to economies of scale, which reduces the refuge for wildlife, as hedges and groves disappear," says Aquae, which also denounces certain livestock practices that involve excessive grazing. This impoverishment of the soil affects biodiversity. It also has consequences on the nutritional composition of foods, if we look at various scientific studies that have analyzed this nutritional value throughout historical series. Mara Dolores Raign, professor of Soil Science, explains it: "there is research that collects changes in the composition of foods during historical series going back 120 years.

The results are conclusive: foods lose the concentrations of minerals and vitamin principles over the years." According to data collected by the pharmaceutical laboratory Ciba Geigy (Switzerland) and Sanatorium Obertal (Germany), broccoli has seen its calcium percentage decrease by 73% between 1985 and 2002, as well as folic acid by 62% and 55% magnesium. In the case of spinach, they have lost 78% of calcium and 65% of vitamin C in this period, while bananas have lost up to 92% of vitamin B6.

"While there are large studies that have confirmed the decline in the nutritional composition of foods throughout history, other research has emerged that demonstrates that natural soils, which have not been subject to aggressive agricultural uses, maintain their content in organic matter," explains Raign. The UPV professor refers not only to the use of certain agricultural practices, but also to the use of pesticides and synthetic chemical fertilizers, which little by little affect the health of the soil and, consequently, that of the plants and the entire edaphic life. "It must be taken into account that the plant extracts nutritional principles from water and soil, and that it subsequently carries out photosynthesis, obtaining organic matter with the help of light.

Therefore, the plant extracts the minerals it needs from the soil in which it grows. It is cultivated, so if we do not take care of it properly, it will be deprived of these minerals," explains Raign. The scientist also relies on research carried out in 2018 by the French group NutriNet-Sant, created to investigate the relationships between nutrition and health and which has evaluated the consequences of organic eating on health. "Organic eating has been shown to reduce the likelihood of cancer, as well as being associated with a lower likelihood of cardiovascular disease and a reduction in diabetes," she explains.

Posted On 04/21/2024

#### stoneharbor

Thanks, Gui for all the information on Akkermansia. I checked my gut microbiome tests from 10 years ago and I was quite low in this genus. Actually measuring at only .02% of total species. I will work on this one and see what I can learn from all your links.

Thanks stoneharbor. Akkermansia muciniphila is a nonmotile, gram-negative, non-spore-forming bacterium. Its key characteristics are the ability to produce short-chain fatty acids (SCFAs, an energy source for colonocytes and anti-inflammatory molecules), promote the turnover and thickening of mucin, thus reinforcing the intestinal barrier, and interact with host receptors with its active molecules exposed. Influencing inflammation and metabolism. A. muciniphila can be used as a biomarker of a healthy host metabolic profile and its depletion represents a signature of intestinal dysbiosis in different gastrointestinal and extraintestinal diseases such as inflammatory bowel disease and some types of cancer. Many case-control studies have documented a significant decrease in the relative abundance of A.

muciniphila in both ulcerative colitis (UC) and Crohn's disease (CD) compared to healthy controls, with only one study showing an opposite trend. in a group of patients affected by CD. Diosmin found naturally, mainly in citrus fruits, Rutaceae family, but also in herbs such as Teucrium gnaphalodes, alleviates ulcerative colitis in mice by increasing the abundance of Akkermansia muciniphila, improving intestinal barrier function and modulating pathways. NF-B and Nrf2A. muciniphila exerts an anti-inflammatory effect within the intestinal microecology. Gut microbiome derived short chain fatty acids: Promising strategies in necrotising enterocolitis

Among the proposed underlying mechanisms, SCFA production is the most investigated; SCFA production has been shown to protect against colitis by increasing the number of forkhead box P3 (Foxp3+) regulatory T cells in the colon and by activating G protein-coupled receptor 43 (GPR43) expressed by immune cells. and the epithelium of the colon. Administration of A. muciniphila could improve dextran sulfate sodium (DSS)-induced colitis in mice by reducing the levels of macrophages and CD8+ cytotoxic T lymphocytes in the colon , while Bian et al. reported a downregulation of proinflammatory cytokines and chemokines. Furthermore, administration of A. muciniphila enhances the proliferation of intestinal stem cells and the differentiation of goblet and Paneth cells in the small intestine and colon of both healthy mice and mice with intestinal damage.

www.science.org/.../science.1241165 (2013).-- ter-arkhiv.ru/.../33561 (2019).--www.frontiersin.org/.../full (2019).--- www.tandfonline.com/.../19490976.2021.1892441 (2019).-www.frontiersin.org/journals/microbiology/articles/10.3389/fmicb.2019... (2019).-gut.bmj.com/.../1988.abstract (2020).-pubs.rsc.org/en/content/articlelanding/2022/fo/d1fo04094d/unauth (2022).-www.cell.com/.../S2405-8440 (24)03558-8 (2024) www.sciencedirect.com/.../S2666517424000014
(2024).-- www.sciencedirect.com/.../S2666517424000014 (2024).-- encyclopedia.pub/.../43044
(2024).--

#### stoneharbor

Dr. Mercola is back! He is looking carefully and finding the faults of the old Ray Peat protocol and he is confronting Georgi Dinkov on the values of a healthy microbiome, the dangers of sugars, and the threat of taking antibiotics. He's even showing that with microbial help, the large intestine forms 2 mucus layers that totally protect against any endotoxin entry if the mucus is kept robust. Also, Dr. Mercola is now talking about "quorum sensing" which is used by all bacteria to actually "count" the numbers of each species. This allows good "commensal" species to keep their numbers strong and limit the endotoxin-producing pathogenic species minimized.

Thus, there's no need to worry about your gut microbes if you are eating enough fiber to feed the microbes in the large intestine. While Dr. Mercola does a thorough job of pushing the value of collagen here, he still has as his only reference at the end of this article a link to a Ray Peat piece that pushes continual carbohydrate intake: optimisingnutrition.com/ray-peat-diet It even says "Peat believes that eating small meals very frequently stokes your metabolic fire'. This is also a foundational principle of eating during bodybuilding prep," After this, there is a list of important "points", the first one being: "Eating more frequently is recommended for metabolic health.

Time restricted eating and fasting are discouraged." So this is another way that Ray Peat was ignorant of the value of daily, nocturnal fasting afforded via Time Restricted Feeding (TRF), also called Intermittent Fasting (IF). All the science now is supporting daily TRF in sync with one's circadian rhythm which actually allows the regeneration of mitochondria daily. Eventually we will hear Dr. Mercola speak on this also. If we want plenty energy, we need TRF. Just plenty of carbs won't do. orthomolecular.activehosted.com/index.php?action=social&chash=950a..

### stoneharbor

Marvelous that Dr. Mercola is totally recommending progesterone supplementation. It's so efficient and quickly effective. And not commonly known is that progesterone is a precursor to Testosterone, and much cheaper and safer to supplement with. www.dhea.clinic/.../progesterone-cream-for-men Testosterone is vital to both female and male health. brainmd.com/.../benefits-of-testosterone-forwomen Also, I appreciate the strong recommendation by Dr. Mercola for supplementing with glycine. In addition to it being a full 25-30% of bone broth, additional glycine can still be utilized by the human body. I make bone broth and use it liberally, but I still supplement with a heaping teaspoon full of powdered glycine daily and have been doing this for 4 years. 180degreehealth.com/glycine-insulinresistance Glycine - the most important inflammation regulator: www.theguthealthprotocol.com/wp/glycine-the-most-important-inflammatio..

Interesting information stoneharbor. Progesterone (PROG): a neuroprotective steroid of the intestine. The current results support the concept that progesterone can modulate the inflammatory response of immune cells. The results suggest that progesterone administration after traumatic brain injury could suppress intestinal inflammation, protect intestinal mucosal structure, and reduce mucosal apoptosis. In this emerging area of progesterone research, several research studies attest to the neuroprotective effects of progesterone, the absence of neurological side effects, and a benefit to cognitive function.

Progesterone has been reported to protect against a variety of insults relevant to brain aging or indeed several neurodegenerative diseases, including stroke, traumatic brain injury (TBI), stroke and Alzheimer's disease (AD). We investigated whether vitamin D combined with PROG could improve behavioral outcomes more than PROG alone in VDH-sufficient rats that received bilateral medial frontal cortex contusions. Our data indicate that the combination of PROG and VDH is more effective than PROG alone in preserving spatial and reference memory, and that PROG plus VDH at low doses can activate glial fibrillary acidic protein (GFAP) reactions up to 21 days after injury.

This effect may be one of the mechanisms underlying the neuroprotective effects of PROG in combination with VDH. www.ncbi.nlm.nih.gov/.../PMC3517217 (2012) www.tandfonline.com/.../08820139.2017.1413112 (2017).-www.sciencedirect.com/science/article/abs/pii/S0022480407003812 (2008).-womeninbalance.org/resources-research/progesterone-and-the-nervous-sys.. (2023).-www.frontiersin.org/journals/endocrinology/articles/10.3389/fendo.2024.. (2024).--I
www.mdpi.com/.../1206 (2023).--

Progesterone is essential for protecting against LPS-induced. Progesterone exhibits pleiotropic antiinflammatory effects in LPS-stimulated BV-2 microglia by downregulating proinflammatory mediators corresponding to the suppression of NF-B and MAPK activation. Disruption of the intestinal barrier, as occurs with unhealthy diets, alcohol consumption or during chronic diseases, the microbiota residing in the gastrointestinal tract becomes a crucial factor in amplifying the systemic inflammatory response. Indeed, the translocation of LPS into the bloodstream and its interaction with toll-like receptors (TLRs) triggers molecular pathways involved in cytokine release and immune dysregulation.

This is a critical step in the exacerbation of many diseases, including metabolic disorders and cancer. The role of lipopolysaccharides (LPS) in cancer development is widely recognized, and examples include Helicobacter pylori-related gastric tumor infection and hepatocellular carcinoma, both preceded by prolonged inflammatory injury; Furthermore, the risk of recurrence and development of metastasis is associated with endotoxemia. Unhealthy diets and metabolic disorders, such as obesity and type 2 diabetes mellitus, are associated with intestinal barrier dysfunction and dysbiosis, resulting in increased circulating LPS, a condition called metabolic endotoxemia (ME).

. The low-grade inflammation caused by MS, in turn, establishes a vicious cycle associated with worsening glucose and lipid metabolism, the development of insulin resistance and nonalcoholic fatty liver disease, and generates a favorable environment for the transformation of cancer cells. While dietary interventions seem to counteract this event.

Short chain fatty acids (SCFAs) derived from dietary fermentation of dietary fibers are recognized as protective agents against chronic intestinal inflammation, and improving the composition of the intestinal microbiota, glucose and lipid metabolism and body weight, all of which are recognized factors involved in tumorigenesis. Both hyperglycemia and intestinal barrier impairment have recognized oncogenic potential in the development of colorectal cancer (CRC). EM also increases the formation of reactive oxygen species (ROS) and DNA damage, which favors the process of tumorigenesis. These results confirm that inflammation of intestinal origin is a common denominator in metabolic disorders and cancer.

The role of endotoxin is not limited to the initial phases of carcinogenesis, but appears to be involved in cancer progression and the development of metastasis. LPS improves the adhesion of tumor cells to the endothelium through the activation of NF-kB and increases the early stages of organogenesis and the regulation of cell adhesion, migration, proliferation and differentiation, as well as development. of new glasses. 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. Parabacteroides diastasonis, a gram-negative bacteria, is able to reduce the incidence of tumors in murine models of CRC. journals.plos.org/plosone/article? id=10.1371/journal.pone.0103969 (2014).-\_ www.tandfonline.com/.../08820139.2017.1413112 (2018).-- www.mdpi.com/.../267 (2023).--- link.springer.com/.../s11605-023-05654-4 (2024).-- www.ncbi.nlm.nih.gov/.../PMC10915638 (2024).-- www.cell.com/.../S2405-8440 (24)05714-1 (2024).--

#### stoneharbor

Thanks Gui for the additional words to help us understand the benefits of progesterone in fighting against invasion by LPS via the gut. Key to your explanation was your statement: "Disruption of the intestinal barrier, as occurs with unhealthy diets, alcohol consumption or during chronic diseases, the microbiota residing in the gastrointestinal tract becomes a crucial factor in amplifying the systemic inflammatory response.". How important this is. You point out it is, correctly, the UNHEALTHY DIET that in many ways initiates the entire cascade of 1) increased pathogenic bacteria in the gut; 2) the LPS that derives from die-off of these bacteria; 3) the lack of mucus to protect the gut endothelial surface; 4) poor cell junctions that allow "leaky" conditions that invite LPS entry into the interior of the body, thus inciting....

5) inflammatory responses, which can then bring on 6) chronic conditions of "metabolic syndrome", including diabetes, cancer, cardiovascular deterioration, and autoimmune conditions.

If humans hadn't created the junk food that replaced healthy foods in our diets, we wouldn't have to worry about this situation at all. But doctors ceased to be "doctors" (teachers) and instead became beasts of disease and medication. And now we, the people, have to educate all of society on how to eat healthy to stay healthy. It is rewarding to have you and Dr. Mercola both focus on what is really healthy food and eating habits, and how that alone can bring people to health.

Posted On 04/21/2024

# bpm4539

Some supplement sellers have something called "Glycine (Free Form)". What is this? I guess this is not the same as L-Glycine.

### **Boondock**

You may want to interview Paul Jaminet, author of The Perfect Health Diet, who was basically saying this exact thing 15 years ago, and coined the term "safe starches". He has gone on to other things but it would still be nice to see him get some well-deserved publicity. His blog is still up and has a ton of great commentary.

Posted On 04/21/2024

# josephunger

Insightful, informative and pertinent, as always. Some of the old masters, Royal Lee, et al, advocated Lactic Acid Yeast (in the old days we gagged down Brewers Yeast) as a pivotal population in the gut. A normal yeast in the large intestines producing lactic acid, the favored food for Acidophilus. Provides a foundation and pH regulation for the gut good guys. An explanatory article of this perspective here: www.atriumhealthservices.com/gut-biome-and-you

Also consider that bacteria have a variety of pathways to transform food breakdown sugars. The pathways that lead to the production of SCFA and lactic acid by intestinal bacteria are represented in Figure 1. In addition, short chain fatty acids (SCFA) play a very important role in regulating pH, increasing the absorption of calcium, iron and magnesium, and are beneficial for glucose and protein metabolism in the liver. Furthermore, these acids affect the maintenance of the normal structure, integrity and function of the intestines, show anti-inflammatory activity, which involves inhibiting the activity of inflammatory mediators in the intestinal epithelium and, therefore, inhibiting the activation of NFB macrophages, which They are the main source of cytokines in the course of the inflammatory process of inflammatory bowel diseases.

. These acids are the main source of energy for colonocytes. It has been shown that the source of 70% of the energy used by intestinal epithelial cells (IEC) is butyric acid produced by commensal bacteria, especially such as Ruminococcus and Faecalibacterium (Table 4). Furthermore, by simulating the growth of saprophytic microflora, SCFAs inhibit the development of pathogenic microorganisms such as Escherichia coli, Salmonella or Campylobacter, which compete for colonization sites. www.ncbi.nlm.nih.gov/.../PMC7230973 (2022).--

Posted On 04/21/2024

# chrisphillips

still hoping for a recommendation for 'store bought' bone broth that is worthy....

# josephunger

Personal opinion, all are good only a matter of degrees. All commercial and a great majority of homemades use the animals that have been fed a deficient diet. If the ingredients are not in the bones, they cannot magically end up in the extracts. A whole food sourced trace mineral supplement may be superior. Sorry for the news. See additional information at: www.scientificamerican.com/article/soil-depletion-and-nutrition-loss/

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### stoneharbor

I agree. Hoping and even praying won't fix this. God helps those who help themselves. I have to twist my arm to make broth, but just a bit. I've been doing this for years now. The only way to get the quality you really should demand is to make the broth yourself.

Posted On 04/21/2024

# **ScanKat**

Kettle & Fire is good. It really is cheep and easy to make though.

Posted On 04/21/2024

#### susansmckenzie

I think most people make their own. I use both mercola's collagen complex powder and paleovalley bone broth protein. Important to use bones sourced from regenerative farmers.

THE ULTIMATE GUIDE TO BONE BROTH: NATURE'S COLLAGEN SUPPLEMENT Hands down, this may be the world's healthiest food. It helps repair muscle, strengthens bones, reduces joint pain, stiffness and inflammation, improves blood pressure and glucose tolerance. "Beef bone broth is one of the most important microbiome optimization strategies and helps "heal and seal" your gut, which is crucial for optimal health and disease prevention. Many of our modern diseases appear to be rooted in an unbalanced mix of microorganisms in your digestive system, courtesy of an inappropriate and unbalanced diet.

Bone broth plays a vital role as it's easily digestible, helps heal the lining of your gut and contains valuable nutrients." takecontrol.substack.com/p/benefits-of-bone-broth?utm\_source=publicati.. (04/08/2024).------ Innovation and excellence in the Basque Country also extends to haute cuisine, where there is the highest concentration of Michelin stars per capita in the world. Bone broth from the famous chef Arguiano is also a perfect option. With its intense flavor and full of nutrients, this broth is ideal for fighting the cold and taking care of your health.

Discover how renowned chef Karlos Arguiano has created a unique recipe full of flavors that will make you want to repeat again and again. Get ready to enjoy a traditional dish with a modern touch that will leave you completely satisfied. Don't miss this opportunity to taste Arguiano's incredible bone broth! Ingredients for Arguiano Bone Broth: -----2 kg of beef bones -----1 large onion -----2 carrots -----2 leeks -----2 sticks of celery -----1 tomato -----4 cloves of garlic -----1 bay leaf -----Salt to taste ----- Black pepper to taste -----Water

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# jennifermetz

Much better than knuckle bones is tail, oxtail. If you can get grass-fed oxtails it makes fabulous jiggly broth. Wonderful flavor also!

Beef Oxtail is a fat and collagen powerhouse and it's no surprise that Beef Oxtail is a firm favorite amongst the Paleo Diet and Carnivore Diet communities for it's satiating energy. Natural Collagen is Mother Nature's ultimate building block for growth and repair. Approximately 40% of natural collagen found in Mammals is in their tail and feet so you get a massive blast of natural bioavailable Collagen from eating Oxtail. You also get the added benefit of a rich gelatinous bone broth when you slow cook Oxtail in nothing but water, some garlic cloves, and carrot and celery. This bonus bone broth just needs to be stored in the refridgerator and heated whenever you want a cup of comfort. truorganicbeef.com/.../what-is-oxtail

Posted On 04/21/2024

### les11925

I was interested in this article until I read: "Unfortunately, many who are following a carnivore diet fail to realize that most of the protein should be in the form of collagen, NOT red meat. An all-meat diet will only accelerate your demise, as most of the amino acids in muscle meat — methionine, histidine, tryptophan and cysteine — promote inflammation and suppress thyroid function and metabolism.1" This is FALSE. Because of misleading advice such as this, I watched my dad waste away of dementia and Parkinson's.

I started researching how to improve my health after his passing and that's when I found out that the food pyramid is a lie, along with several other corrupt events regarding large food companies the last 100 years. I am living proof that meat heals, and red meat is the best. Want to heal your mitochondria? Eat lots of red meat, and quit the sugar and highly processed foods. It really is that simple. When you have healthy mitochondria, your body's immune system disposes of the deformed cancer cells. SUGAR and CARBS = DISMISE

#### Laura G.

Dr. Mercola, I have fibroids ("benign" uterine tumors) and have read that collagen can cause them. I did used to take a collagen supplement before I was diagnosed. What are your thoughts on this?

Posted On 04/22/2024

### **Dr. Mercola**

Tryptophan conversion to serotonin causes fibrosis that contributes to fibroids, but fibroids are mostly caused by excessive estrogen and not enough progesterone. Collagen does not cause fibroids.

Posted On 04/22/2024

# Heart\_jewel

I'm asking for an opinion on taking one tryptophan capsule at night when I wake up and can't get back to sleep. I eat red meat in small amounts, always with lots of vegetables.

Posted On 04/22/2024

# **Dr. Mercola**

Isolated tryptophan is an anti-metabolic poison. Never take it as a supplement

### dbb3560

Thanks for this informative article. But I believe it leaves out an essential element of optimal digestion: seasonal eating. Our gut microbiome, even when healthy (maybe especially when healthy), is ideally populated to digest starches such as wheat, grains, potatoes and other tubers in the fall and winter months when they are harvested and then stored to get us through the winter months. In the spring our gut microbiome is ideally suited to digest the bitter greens that are widely available at that time. In a perfect world, we would switch from grains and tubers to these better greens (dandelion, ramps, lettuces, etc.) as we move into spring.

Posted On 04/21/2024

# lebasi23

Do you plan on writing a book to help implement and explain this unusual and complicated info??

Posted On 04/21/2024

### smoskaly

Dr. Mercola, you report you are eating a lot of white rice. Have you found a brand that has little or no arsenic? I have read that, in general, rice is high in arsenic and should not be eaten daily.

The variability in the levels of this component between different types of rice is due to geological factors, cultivation and processing methods. Specifically, rice absorbs arsenic more easily than other foods in the field due to its cultivation in flooded fields, which facilitates the transfer of arsenic from soil and water to the grain. That is why brown rice tends to have higher levels of arsenic because it accumulates in the bran, which in the case of white rice, is removed during processing. However, some varieties such as long white rice tend to have lower levels of arsenic.

This is due, in part, to specific growing and processing practices that limit arsenic uptake, such as in the case of basmati, which is grown in areas with geological conditions less prone to high levels of this chemical element. The danger is that one of the types of arsenic, inorganic, has been classified as carcinogenic and genotoxic. Therefore, prolonged exposure can have harmful effects on health, including the development of different types of lung, bladder or skin cancer. For this reason, the recommendations for consumption and preparation of rice seek to minimize the presence of arsenic in the diet.

The European Commission, aware of the health risks that inorganic arsenic represents, has established maximum limits for its presence in foods, including rice. These regulations are crucial to minimize consumer exposure to arsenic, especially protecting vulnerable groups such as children. The limits are set at 200 micrograms per kilo for white rice intended for adult consumption and 100 micrograms per kilo for rice products intended for child nutrition.

Specifically, in the latest review of the European Food Safety Authority (EFSA), a safety value of 0.06 micrograms of inorganic arsenic per kilo of body weight per day is established, based on a study of cases and controls on skin cancer in the United States in 2013. What would be, for example, 4.5 micrograms per day for a person weighing 75 kilos. That is, the toxicological reference point has been reduced 5 times compared to the value established in 2009, which was a range of 0.3-8 g of arsenic per kg of body weight per day.

------ A LITTLE TRICK TO REMOVE SOME OF THE ARSENIC FROM RICE AT HOME. Let the rice soak the night before for at least eight hours. Afterwards, it would be a good idea to wash this ingredient "until the water runs clear." And finally, the expert recommends cooking the rice with plenty of water (more than the traditional two parts for each part of rice.

Posted On 04/21/2024

#### rrealrose

Yup, the issue was switching fields across the southern US from growing cotton to growing rice. Rice is grown in water; as a grass, it massively absorbs whatever pesticides or herbicides are in the soil/water. You may find that Lundberg white rice, organic and grown in California is a somewhat better choice. Others have decided that imported Thai jasmine white rice may also be low in arsenic. You may want to check the EWG website for more details.

Posted On 04/21/2024

# **StarrAdams**

Thank you for bringing this up ~ It's a question I've had all along as well! I hope that Dr. M. will address this!