

Guillermou

Advanced glycation end products (AGEs) are non-enzymatic interactions between reducing sugars and amino groups in proteins, lipids and nucleic acids. In numerous diseases, such as diabetes, neuropathy, atherosclerosis, aging, nephropathy, retinopathy and chronic kidney disease, the accumulation of AGEs has been proposed as a pathogenic mechanism of inflammation, oxidative stress and structural tissue damage leading to chronic vascular problems. Current studies on AGE inhibition mainly focused on food processing. Carnosine (-alanyl-L-histidine) has recently attracted much attention as a natural antioxidant and transition metal ion sequestering agent.

It has also been shown to act as an antiglycation agent, inhibiting the formation of advanced glycation end products (AGEs). Through its distinctive combination of antioxidant and antiglycant properties, carnosine is capable of attenuating cellular oxidative stress and can inhibit the intracellular formation of reactive oxygen species and reactive nitrogen species. By controlling oxidative stress, suppressing glycation, and chelating metal ions, carnosine can reduce harmful consequences such as DNA damage. AGEs are known to contribute to cardiovascular and neurodegenerative disease pathology and therefore carnosine deserves serious attention as a potential therapeutic agent.

Evidence demonstrated that carnosine supplementation had a beneficial impact on preventing sarcopenia, fatty liver disease, preserving cognitive abilities and improving neurodegenerative disorders and possesses anti-cancer actions of carnosine. Carnosine (1) inhibits the proliferation of breast, ovarian, colon and leukemia cancer cells; (2) positively regulates the expression of proinflammatory molecules; (3) modulates cytokine secretion and (4) restores normal cellular homeostasis

Posted On 02/05/2024

Guillermou

Carnosine capable of reducing the levels of glycosylated lens proteins, preventing the loss of protective enzymes and, ultimately, delaying lens opacity. It is also effective in the eradication treatment of Helicobacter pylori. www.ch.cam.ac.uk/group/duer/research/collagen-glycation-and-diabetes (2023),.... www.science.org/.../sageke.2005.18.pe12 (2005),.. link.springer.com/.../s00726-018-2592-9 (2018),.. www.mdpi.com/.../1644 (2021).-----
www.sciencedirect.com/.../S0167488921001713 (2021),.. www.ncbi.nlm.nih.gov/.../PMC10069809 (2023),.. www.sciencedirect.com/science/article/abs/pii/S0141813023027095 (2023).--
www.mdpi.com/.../1770 (2023).--
www.sciencedirect.com/science/article/abs/pii/S0303720723002897 (2024).---

Posted On 02/05/2024

juststeve

Gui this information goes a long way explaining why those engaged in physical labor, heavy activity or live in very cold Climents crave meat. Seeds, greens really take a back burner spot when day is done, and the body craves to be rebooted. So many compounds interacting with so many different body functions when lacking can have huge consequences. Miss the key drivers and it doesn't matter as much how many other good things are in abundance yet can't be taken advantage of without those key drivers.

Posted On 02/05/2024

Guillermou

Just you always connect rigorously with reality. Also carnitine and taurine from meat products. The present review focuses on the critical evaluation of the efficacy of L-carnitine supplementation on exercise-induced muscle damage, particularly post-exercise inflammatory and oxidative damage. L-carnitine supplementation could be an ergogenic aid, aiding in muscle damage and recovery. www.mdpi.com/.../2587 (2023).---- Eccentric exercise places more tension on active muscle fibers, resulting in muscle damage and delayed soreness. Therefore, delayed onset muscle soreness (DOMS) is a common result of severe eccentric contractions.

This study aimed to clarify the combined positive effect of taurine and omega-3 supplementation on DOMS and muscle damage after high-intensity eccentric exercise. www.jimc.ir/article_172531_3e82e1dfd94f270ec30366198eb39c3d.pdf (2023).--- In these reviews, an analysis of taurine supplementation was performed with (1) doses and (2) periods of acute (single dose) or chronic (> 1 day) supplementation. Human endurance performance can be improved by oral ingestion of a single dose of taurine in varying amounts (1 to 6 g). A low dose of taurine (0.05 g) before strength-building exercises may decrease muscle fatigue and increase enzymatic antioxidants.

link.springer.com/.../s40279-018-0896-2 (2018).--- www.frontiersin.org/.../full (2021).---- In humans, small clinical trials of taurine supplementation in adults have suggested benefits in metabolic and inflammatory diseases. Taurine supplementation significantly increased SOD and GPX. The results of the present study indicate that taurine has antioxidant effects against oxidative stress induced by resistance exercise and lipid peroxidation. www.science.org/.../science.adi3025 (2023).--- www.magiran.com/.../2575766 (2023).---

Posted On 02/05/2024

Gui I love how you mention other crucial elements found in meat, such as Carnitine, Omega-3, and Taurine. Anti-glycation is very key, and both carnosine and taurine protect against AGE's. Fascinating how meat contains immense quantities of compounds many people take as supplements (!!)- All in one place! ALL of these amino acids we so glowingly speak of, plus important fatty acids, bio-available vitamins & minerals, choline, CoQ10 all are in meat. Liver is off the charts, like taking fistfuls of supplements (you can almost get nutrient toxicity from liver: iron or vit. A toxicity for example!! consider this very rare, though, because most people cannot consume large amounts of liver at one time!) Plants contain nutrients "On Paper" but most of them are NOT available to us until they are released by cooking and fermenting.

I am increasingly convinced that eating veg in its raw state does more harm than good (unless it's directly replacing muffins, donuts, doritos etc.- then the good far outweighs the harm!!) Meat nutrients are inherently bio-available and free of glyphosate, oxalates, lectins, phytates, goitrogens, alkaloids etc.. The only thing I'd add to Dr. M's article is: Don't confuse LA with CLA (Conjugated linoleic acid) found in meat, which is highly beneficial.

"CLA and LA appear to have opposite effects on the human body. For example, LA promotes tumor growth but CLA blocks it": www.eatwild.com/cla.html Yet another fatty acid in ruminants called trans-vaccenic acid (TVA) inhibits tumor growth in mice: biologicalsciences.uchicago.edu/news/tva-nutrient-cancer-immunity#:~:t..

(TVA)%2C%20a%20long%2Dchain,from%20the%20University%20of%20Chicago. Red Meat Lengthens Telomeres, a key marker of longevity: www.ncbi.nlm.nih.gov/.../PMC4944490

Posted On 02/05/2024

Guillermou

Thanks Phoenix. Being omnivores and eating organic and grass-fed vegetables and their organ meats in moderation constitutes a good diet as long as we use healthy ingredients such as spices in its preparation and the cooking is not at a high temperature. The meat and organ meats of fish and livestock are a good source of carnosine and taurine, two amino acids with many properties. Meat also produces byproducts such as bones, blood and viscera, which provide bioactive compounds. In physiological analysis, bioactive peptides in meat have been reported to exert antioxidant, antihypertensive, anti-inflammatory, antimicrobial, and antitumor activities, which confer nutritional and functional value to meat.

Vegetables contain little methionine. Being omnivores we provide a complete diet.

www.sciencedirect.com/science/article/abs/pii/S1043452621000218 (2021) Also consider the methionine/glycine ratio when eating meat. As Dr. Mercola has reported, the methionine/glycine ratio is essential. Inflammation is a common factor in cancer, cardiovascular disease and diabetes, as well as arthritis and other inflammatory diseases. Studies establish an inverse association of plasma glycine levels between patients with insulin resistance and diabetes, cardiovascular disease and cancer.

This suggests that low levels of glycine in the blood can generate a hyperinflammatory state, predisposing the body to the spectrum of chronic diseases including cancer. Plasma levels of glycine in human populations, although may be adequate for the biochemical functions of glycine, including protein synthesis, may not be sufficient for the cellular physiological function of glycine in membrane voltage stabilization, cell activation in macrophages and other cells.

Posted On 02/05/2024

Guillermou

Glycine is the only substrate for glycine-N-methyltransferase, which comprises the only major pathway of methionine elimination. Triggered by the absorption of a methionine-rich meal, elimination of excess methionine requires two to three molar equivalents of glycine per mole of methionine. Therefore, one could hypothesize that high consumption of connective tissue-depleted, methionine-rich, glycine-poor muscle meats as staple foods causes a net reduction in plasma glycine levels. This hypothesis among the participants of the EPIC study in the United Kingdom. Carnivores consuming high methionine and low glycine had the lowest plasma levels of glycine than other diets. Observational studies, a clinical trial in Mexico City a decade ago reported the reversal of type 2 diabetes with the consumption of 15 g/day of supplemental glycine for 90 days.

Glycine decreases proinflammatory cytokines and increases interferon- in patients with type 2 diabetes. Observationally, the inverse association of type 2 diabetes and prediabetes with plasma glycine has been abundantly documented, as demonstrated by the recent SRMA of 46 studies. www.ncbi.nlm.nih.gov/.../PMC4839172 (2016)----- www.ncbi.nlm.nih.gov/.../PMC4859380 (2016).---
-- analyticalsciencejournals.onlinelibrary.wiley.com/doi/abs/10.1002/bmc... (2017).-----
[www.jbc.org/.../S0021-9258\(17\)30753-6/fulltext](http://www.jbc.org/.../S0021-9258(17)30753-6/fulltext) (2009).--- www.nature.com/.../ejcn2015144 (2015).--- link.springer.com/.../BF03346417 (2008).----- www.bmj.com/.../rr-1 (2018).---

Posted On 02/05/2024

Guillermou

New research suggests that it is possible that this fountain of eternal youth has already been found in an amino acid called taurine, which is one of the most abundant in the body. The body depends on taurine, especially in the first years of life. Its deficiency can affect the nervous system and muscles, problems that usually appear with age. In fact, taurine levels in various tissues are known to decrease as we age. In a new study published in Science, scientists have made some interesting discoveries about taurine and aging. Old animals had 80% less taurine in their blood than young animals.

But when aged mice were given extra taurine, something incredible happened: their lifespan increased by up to 25%. Taurine not only lengthens life, but improves it. The mice given taurine gained less weight, had stronger bones and muscles, and even showed signs of less anxiety. Taurine also appeared to improve control of blood sugar levels, improve immune function, and reduce inflammation, which plays an important role in many health problems. Scientists believe that taurine could slow aging at the cellular level, reducing DNA damage and other markers of aging.

It could even improve the cells' perception of nutrients, boost mitochondria, and reduce inflammation. Exercise also appears to increase taurine levels. This could explain why physical activity is so good for your health and slows down the aging process. In monkeys, the benefits of taurine are similar to those seen in mice, suggesting that its anti-aging powers could extend to humans as well.

www.science.org/.../science.abn9257

Posted On 02/05/2024

LazarusLong

Regarding Taurine: Do Amino acids actually need to be taken on an empty stomach? If so, what is the physiology of such a requirement? It would seem that absorption of aminos would readily occur in the small bowel.

Posted On 02/05/2024

Naplam

Great information!

Posted On 02/05/2024

Hippocrates460

Regarding the mention on carnosine and glycosylated lens proteins, just a personal anecdote. Eight years ago, when my West Highland terrier was age 15 she had developed canine cataracts that were so cloudy she began bumping into furniture. I used the Can-C brand of carnosine eye drops, twice a day. At around the 5 or 6 week mark her eyes were clear, even family members who came to visit remarked in astonishment not aware of the eye drop regimen I had been doing. She stopped bumping into furniture and her eyes stayed clear as the years passed. I continued with the drops once a day for almost a year and then only sporadically or once a week until she passed away 3 years later. Just a tip for anyone else who might want to try this for their dog. Safe and affordable compared to cataract surgery. Worth consideration.

Posted On 02/05/2024

Meibao

I enjoyed reading the comments and want to add that I'm a rancher with 33 heads of cattle that are all grass fed, non-vaccinated, and when there's not enough grass in the summer, I feed them certified organic alfalfa. They get Redmond's Real salt with organic kelp as their salt lick. The beef has no toxins, extremely good to eat raw and cooked rare (tends to be tough if overcooked). As Dr. Mercola wrote, when chickens are fed corn and soy, their yolks become omega 6 fat. So it goes with feeding beef corn and soy to marble the meat...you're getting omega 6 fat. My beef are 100% omega 3 fat. I also feed my pig corn and soy-free chicken feed so the lard is omega 3. I'm 80 years old, do all the farm work, have a big garden of leafy greens like arugula, kale, sorrel which I use for salads, and I go through a quart of lard every 2 - 3 weeks.

My cholesterol is 186, HDL is 92, LDL is 42. No rice, no noodles, no bread, no potatoes, no caffeine, no doctors, no chiropractors, no acupuncturists, no herbal remedies. I just eat meat, fat, vegetables, and drink 7 quarts of water per 24 hours with minerals. Lick a tablespoon+ of Redmonds Real salt per day, too. Life is fantastic. I teach young people how to live a regenerative, sustainable, organic lifestyle. www.watercure.com is the secret to longevity The Fountain of Youth is pure clean water found anywhere but in plastic bottles. Many blessings to you all!

Posted On 02/05/2024

Horsea

Congrats on your good health! I am curious as to the condition of your teeth. Can you advise?

Posted On 02/05/2024

amantakhee08gmail.com

Wow! that's awesome. Great lab levels.

Posted On 02/05/2024

brianallen1

As I have been saying: Beef. It's what's for dinner. And breakfast. And lunch.

Posted On 02/05/2024

Guillermou

.....and even better bison meat as advised by Dr. Mercola Bison meat is low in fat, having a balance of approximately 50% saturated, 35% monounsaturated, and 10% polyunsaturated fats. Sirloin contained the least amount of saturated fat with 49%, while round had the greatest amount with 52%, round had 34% monounsaturated fat, with ribeye and sirloin possessing 38%
www.bisoncentre.com/resources/resource-library/advanced-bison-informat..

Posted On 02/05/2024

vanhelmont

Lamb is also a good choice. 400 mg of carnosine per 100 g, vs. 365 mg in beef. 41% saturated fat, 42% mufa, 7% pufa.

Posted On 02/05/2024

jamNjim

Wow, very interesting stuff concerning Carnosine! It ends the debate over how healthy/unhealthy vegan diets are. Imagine the problems this creates for a developing fetus. How much lower will this child's IQ be? Does this increase the chances of neurological disorders like Autism? Then there's the obvious skeletal/muscle setbacks.

Posted On 02/05/2024

Guillermou

Yes, L-carnosine can improve frontal lobe function or be neuroprotective. It may also be correlated with the -aminobutyric acid (GABA)-homocarnosine interaction, with possible anticonvulsant effects. We investigated 31 children with autism spectrum disorders in an 8-week double-blind study to determine whether 800 mg of L-carnosine daily would produce observable changes versus placebo. After 8 weeks on L-carnosine, the children showed statistically significant improvements on the Gilliam Autism Rating Scale (total score and the Behavior, Socialization, and Communication subscales) and the One-Word Picture Receptive Vocabulary test.

Improved trends were observed in other outcome measures.

journals.sagepub.com/.../08830738020170111501 (2002).---- I -Carnosine could be beneficial in the treatment of children with ADHD. Further research and different doses of I -carnosine are required to replicate these findings in children with ADHD. www.liebertpub.com/.../cap.2017.0157 (2018).---- In this review, human studies have shown promising results of carnosine supplementation in improvements in the core or secondary symptoms of ASD, schizophrenia, fatigue-related disorders, ADHD and OCD, and PD. www.mdpi.com/.../1196 (2019).--- Evidence demonstrated that carnosine supplementation had a beneficial impact on preventing sarcopenia, preserving cognitive abilities, and improving neurodegenerative disorders.

www.mdpi.com/.../1770 (2023).----- L-carnitine deficiency or dysregulation of L-carnitine metabolism in autism spectrum disorder (ASD) is accompanied by alterations of other metabolic pathways, for example, the Krebs cycle, the activity of chain complexes respiratory, indicating mitochondrial dysfunction. L-carnitine supplementation may be beneficial in relieving cognitive and behavioral symptoms in patients with. TORCH www.mdpi.com/.../1202 (2021)

Posted On 02/05/2024

sunflowerjanis

Yes, very interesting. This explains why the vegans i know are, frankly, a bit strange acting.

Posted On 02/05/2024

grulla

Here is a chart showing that canola oil is the 2nd lowest seed oil in linoleic acid at 21%, egg yolk at 16%, linseed oil @ 15%), and lard @ 10%, followed by even lower results from butter, CCO, olive oil, palm oil, etc. Unfortunately, no distinction in this article is made between organic VS NONorganic canola oil. www.news-medical.net/.../Oils-Rich-in-Linoleic-Acid.aspx But here is an article that does stipulate the importance of ORGANIC, natural canola, (rapeseed), oil VS the manufactured NON-organic canola oil. www.centrafoods.com/blog/debunking-5-myths-about-organic-canola-oil But for now, I'll just stick with my organic CCO, organic ghee/butter, bacon fat, and EVOO until I learn more about linoleic acid in ORGANIC canola oil.

Posted On 02/05/2024

brianallen1

Grulla, I would just stick with what you have been doing. Even if organic canola oil is not harmful, how can you ever be sure it is truly organic and unadulterated?

Posted On 02/05/2024

Guillermou

As D. Mercola reported, olive oil has between 3% to 27% linoleic acid. In Spain the most marketed variety of olive oil is Picual and Arbequina. The Arbequina Variety and many others are high in linoic acid (up to 27%), but one of the most notable characteristics of the Picual Olive is its high oleic acid content, only 80% of the total composition. This, together with its low omega 6 content (less than 5%), makes picual olive oil one of the most permissive oils with regard to oxidation and rancidity. This gives it certain ideal characteristics, such as its great resistance to oxidation during exposure to high temperatures. Raw it has an intense flavor and a certain bitterness that is sought after by many consumers. Always consume cold pressed and organic

Posted On 02/05/2024

sunflowerjanis

i don't trust any of the oils, especially canola which i call "crap" oil. i have an overage of LA in my body, so i detoxing, and only using grass-fed butter and a good formula of algae that i got from another holistic health company.

Posted On 02/05/2024

Segstar

grulla you are a true die hard, you never gonna let up are ya matey lol..

Posted On 02/05/2024

grulla

Hey "seggy", thanks for your "positive", "constructive" and "valuable informative" input. [---grin---]

Posted On 02/05/2024

Segstar

grulla passive or aggressive, you know i always got yer back, so how be you stick with what works fir ya..lol..

Posted On 02/05/2024

epi-cure

Re those numbers, whose egg yolks, whose lard, whose butter? As you said, no distinction made.

Posted On 02/05/2024

steve333

No such thing as healthy canola oil It has erucic acid in it which is damaging to the heart. Conola oil, as many call it, was created by hybridizing rapeseed oil to remove the erucic acid but they could only get it down so much. There is no such thing as a canola plant, it was developed by Canada and they had to pay of plenty of people in our FDA to get it approved

Posted On 02/05/2024

vanhelmont

Yes, as Steve333 says you don't want rapeseed oil. It was the common cooking oil in China when I taught there in the mid-1980s, and has to be heated intensely, til it smokes a little, to break down the erucic acid.

Posted On 02/05/2024

grulla

Thanks "van" and "steve", those are the kind of responcees I like to see.

Posted On 02/06/2024

grulla

"seggy", "... you know i always got yer back,..." That's what concerns me. lol

Posted On 02/06/2024

grulla

"epi" here is the ghee I stock up on , pricey, but lasts a long while. Wally also sells the unrefined organic CCO, which is more pricey than the refined version??? www.walmart.com/ip/Carrington-Farms-Organic-Ghee-Clarified-Butter-Gras.. www.walmart.com/ip/Great-Value-Organic-Unrefined-Virgin-Coconut-Oil-54..

Posted On 02/06/2024

sunflowerjanis

i know i've been raving over these articles from Dr. Mercola; but the truth of the matter is that two dermatologists that i went to about my skin problems could not find the root cause. Only by my reading of Dr. Mercola's articles was i able to find out what was going on with my skin. Too much LA!! i have about 4 more years to go with the detox. I'm on a very restricted omega-6 diet and even had to back off on butter, coconut oil; basically everything oily as my skin will break out. i have tried using the beta-alanine but it causes diarrhea. Looks like i'm going to either eat more grass-fed beef and get of the liposomal carnosine. Did make some beef brisket the other day; is it yummy! i can't feel sorry for myself; just need to keep plugging along and doing the best i can. This diet has helped me to lose weight also. So, this detox is a win-win all around.

Posted On 02/05/2024

amypinva

If you don't mind my asking, sunflowerjanis, I'm curious about your reference to skin problems. My 16-year old daughter has been suffering from severe acne and it's not hormonal. Dermatologist was useless. We've found an aesthetician who told her to take only Omega-3, no 6. So seems like she's onto something there. But I'm wondering now if I should up my daughter's grass-fed beef intake. Right now she's not eating any dairy or peanut butter. Thank you!

Posted On 02/05/2024

bow93260

'Organic grass fed beef' can mean finished with grains. Is this what you mean? I wish people would refer it to grass finished beef in regards to 100% grass feed beef. Most consumers don't know the difference.

Posted On 02/05/2024

muttbakercom

For those of us buying EVOO: read Dr. Mercola's article about adulterated Italian/European EVOO. I now buy California EVOO, to try to assure purity.

Posted On 02/05/2024

BicycleBoy

What do you think of Costco's olive oil that is traced to the source?

Posted On 02/05/2024

bchristine

California Olive Oil is supposed to be more "protected" when it comes to EVOO; however I've found the EVOO Dr. Mercola sells - SOLSPRING Biodynamic - is superior in taste than others I have tried.

Posted On 02/05/2024

333mary

Today received an article connecting H Pylori to Alzheimer's. Adding to long list including cold sores, shingles, more. Every one a part of my life. Also included: Head injuryeach suffered increases 'possibility'. Feels insurmountable.

Posted On 02/05/2024

Guillermou

Yes, carnosine precisely attacks *Helicobacter pylori*, a common stomach bacteria found in two-thirds of the world's population, and could be related to a higher risk of suffering from Alzheimer's disease, according to research from McGill University in Canada. . The study, published in *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, analyzed whether an infection with *Helicobacter pylori* (*H. pylori*), which can trigger indigestion, gastritis, ulcers and even stomach cancer, also increased the risk of Alzheimer's disease. Alzheimer's in people aged 50 or older. The team of researchers at McGill University analyzed the health data of more than 4 million people over 50 years of age in the United Kingdom between 1988 and 2019 and found that people with symptomatic *Helicobacter pylori* infection had an 11% increased risk of develop Alzheimer's disease, the most common type of dementia.

Although the cause of Alzheimer's disease is multifaceted, the results are based on a growing body of evidence about the potential role of infections, particularly *H. pylori*, in its development.

www.charite.de/en/service/press_reports/artikel/detail/infection_with_.. (2024),,----

www.sciencedaily.com/.../231213112516.htm (2023).--

www.sciencedirect.com/.../S2405844023068159 (2024).---

Posted On 02/05/2024

roark183

Is bison also a good source for Carnosine? I prefer bison to beef, as bison has less fat.

Posted On 02/05/2024

Dr. Mercola

Yes. Even better, that is what I choose to eat. All ruminant animals are fine to eat; that would include venison and elk.

Posted On 02/05/2024

psa6230

That is my question as well. Living in rural Michigan, we have a local source for organically raised bison from a small farm. We've bought 1/2 of a bison a few times. It is our only source of red meat, though we occasionally eat pasture raised natural lamb as well. I would assume the carnosine would be found in the grass eating bison as well as bovines.

Posted On 02/05/2024

Segstar

Native Lakota called Bison Tatanka..It was their most prized food until they were "domesticated," fed corn and other garbage which helped to bring on their demise..A perfect example on how to kill of a people..

Posted On 02/05/2024

kam8817

Who about venison and elk which we thankfully have here in Montana?

Posted On 02/05/2024

Segstar

Kam, let variety be the spice of life...Those are all good foods as long as they are raised in their Native habitat..

Posted On 02/05/2024

grulla

I don't mean to "rain on anyone's parade", but can I assume that chronic wasting disease is not much of a problem, or is wild game being checked??? www.minnpost.com/other-nonprofit-media/2024/02/possibility-of-wildlife..

Posted On 02/05/2024

badboy2

Let's delve into the concept of zwitterions and how they relate to carnosine: **Zwitterions:** A zwitterion is a molecule that contains both positive and negative charges within the same structure. The term "zwitterion" comes from the German word "zwitter," which means "hermaphrodite" or "hybrid." Zwitterions are electrically neutral overall, despite having charged components. **Carnosine as a Zwitterion:** Carnosine (beta-alanyl-L-histidine) is a dipeptide composed of two amino acids: beta-alanine and histidine. In its natural state, carnosine exists as a zwitterion. Here's how it works: The amino group (NH) of beta-alanine carries a positive charge (protonated).

The carboxyl group (COO) of histidine carries a negative charge (deprotonated). These opposite charges balance each other out, resulting in a neutral overall charge for carnosine. **pH-Dependent Behavior:** Carnosine's zwitterionic nature makes it an excellent pH buffer. When the surrounding pH changes (such as during exercise or metabolic processes), carnosine can donate or accept protons to maintain a stable pH environment. At lower pH (more acidic conditions), carnosine can release a proton from its amino group (becoming positively charged).

At higher pH (more basic conditions), it can accept a proton onto its carboxyl group (becoming negatively charged). **Biological Roles:** Carnosine's ability to buffer pH helps prevent muscle fatigue during intense exercise. It also acts as an antioxidant, protecting cells from oxidative damage. Additionally, carnosine may play a role in brain health and neurotransmission. In summary, carnosine's zwitterionic structure allows it to maintain pH balance and perform essential functions in our bodies.

Posted On 02/06/2024

sarahsheneman3

Why organic beef? Would organic poultry chicken, duck, quail be an equally good option?

Posted On 02/05/2024

LazarusLong

"An exception to this is liposomal carnosine, which appears to work quite well." Interesting. What is the reference for this?

Posted On 02/05/2024

jso5252

What is the difference between liposomal carnosine and L-carnosine?

Posted On 02/05/2024

mrrobb

YES!!!!!! MMMMMMMM I love eating MEAT!!!!...In fact Raw liver taste better raw than liver cooked... I am a Nature follower..I watch birds a lot...and when a Hawk attacks an animal , it will rip the guts open and only eat the Liver , Heart and most the guts..seldome will a hawk eat the meat of an animal....same with Chickens....they will eat each otheras the strong will kill off the weak and eat just the guts..baby chicks prefer worms over dried bird food... And I quit eating Pork...thinking "how much is real pork and how much is human? Hummmmm'

Posted On 02/05/2024

Meibao

Good for you, mrrobb.....I eat raw liver, too...when it's still warm, after the bull is just slaughtered...it's sweet and tender. My cattle are never fed anything with chemicals so I know the liver is clean.

Posted On 02/05/2024

Lee1959

WOW! I could not do that, eat the intestines of any animal since the smell alone makes me want to vomit. But I have seen our cats numerous times eating mice. The first thing they do is bite off the head (the most taurine), then the body including the intestines comes next, and lastly, the tail. I watched our cat very closely one time doing this. The tail being swallowed was the hardest. I don't know why they don't choke on that part:)

Posted On 02/05/2024

rmbittersweet

While deer and elk are a great source for protein, our country unfortunately is have an "epidemic" of chronic wasting disease that is affecting the deer/elk population from coast to coast. Similar Creutzfeldt-Jakob disease.

Posted On 02/05/2024

epi-cure

I recall the story of when Dr. Roger Bannister's goal was to be the first to break the 4-minute mile barrier he went vegetarian to help thwart the lactic acid that accumulates during such a race. This seems to run (pardon the pun) contrary to " Provides athletic benefits – Approximately 99% of carnosine is found in muscle tissue where it facilitates lactic acid detoxification, improves muscle contraction and muscle relaxation and enhances endurance".

Posted On 02/05/2024

Segstar

Don't matter how you cut it, slice it or dice it, it always goes back to the foods that are grown in nutrient dense soils, free of Synthetic and other Petro Chemicals..Same with the animals, make sure they are raised in their native natural environments ...Let that be our guide as we move forward, navigating this dense sea of foolishness..Any doubts we were created by a higher power, or did we simply "evolve" as some of those "wonderful" Scientists have stated ??

Posted On 02/05/2024

brodiebrock12

Well said Seg...it's never been rocket science has it! Only man complicates LIFE. GOD made it very simple. Nature trumps the EGO of man.

Posted On 02/05/2024

Guillermou

A world leader in anti-aging science, biologist Venki Ramakrishnan has spent years unraveling the structure and function of the ribosome, the macromolecular machine in charge of translating genetic information into proteins, key to understanding life. Author of the scientific memoir *Gene Machine*, in March he publishes *Why we die: The New Science of Aging and the Quest for Immortality* (Hodder Press, 2024), an exciting journey into the science of why and how we age and die. In an accessible and entertaining way, the former president of the Royal Society in London addresses life and death from biology, evolution, genetics, chemistry, medicine and metaphysics.

He is in favor of living well for as long as we have and, to do so, practicing some easy habits, more powerful than we think: "Eating well, sleeping well and exercising, currently, are more effective than any anti-aging medicine on the market." market. 1) Eat well. "Humans didn't evolve to eat a lot, desserts and stuff. Our species started out as a hunter and gatherer. We ate sporadically, fasted naturally and were calorie restricted. But now we eat even if we're not hungry and in the West we see a huge increase in obesity," explains the Nobel Prize winner.

2) Exercise. "Today we live a sedentary life compared to our ancestors, who were farmers, hunters, manual workers," he notes. 3) Sleep well. "We often underestimate the importance of sleep, but it is extremely valuable for our body's repair mechanisms," he says. "Putting these old tips into practice helps us maintain muscle mass, regulate mitochondrial function, blood pressure, stress and reduce the risk of dementia," he explains. "The problem is that it's not always easy to follow them. People sometimes prefer to just take a pill and live their lives the way they want. That's the part we have to overcome," Ramakrishnan says.

Posted On 02/05/2024

Guillermou

The anti-aging craze takes hold of some millionaires. Technology mogul Bryan Johnson is determined to return his 45-year-old body to the health parameters it had when he was 18. Johnson has been in this fight for several years now and has invested several million dollars in countless treatments that are controlled in detail by thirty doctors. He undergoes treatment under the direction of Oliver Zolman, a 29-year-old regenerative medicine doctor who controls the rejuvenation process of Johnson's organs. Zolman created a company in 2021 called 20one Consulting based in Cambridge, in the United Kingdom, which offers a series of programs to delay the biological clock.

"My goal is to demonstrate through biostatistics a 25% reduction in aging in the 78 organs by 2030," says Zolman in statements to Bloomberg. "It's an extremely difficult and crazy idea." The most basic programs that Zolman offers focus on improving nutrition and exercise. The most expensive, like Johnson's, reach \$1,000 an hour and include therapies, devices that help improve and monitor health, and various tests to measure the patient's progress. This year, Johnson is close to reaching two million dollars spent.

His goal, Bloomberg points out, is to have the brain, heart, lungs, liver, kidneys, tendons, teeth, skin, hair, bladder, penis and rectum of an 18-year-old. years. Jeff Toll, an internist and one of 30 team members working on this project. Toll claims that tests show that Johnson has been able to reduce his overall biological age by at least five years. According to these tests, he has the heart of a 37-year-old, the skin of a 28-year-old, and the lung capacity and fitness of an 18-year-old. "All the markers we track have improved markedly," explains Toll.

Posted On 02/05/2024

Segstar

Brods, yes it all goes back to some good old fashioned common sense..But over the years it's not so common anymore..Ah lordie..

Posted On 02/05/2024

Segstar

GUI there are some people that want to live forever.. All i want is about 200 years of good healthy ones and then when the bell rings i'm ready to rock and roll lol... bodyhealth.com/blogs/news/digestion-is-key-to-sustainable-fat-loss

Posted On 02/05/2024

sunflowerjanis

Some here commented on how a non-meat diet affects vegans. Well, i know 3 strict vegans. Frankly, i find them to be "strange" acting. One can't seem to control what comes out of her mouth; and the other seems to go off the deep end, lose his temper a bit too fast. The 3rd person seems to be more balanced; maybe she's doing something different than the other 2 vegans are. They are suffering from nutrient deficiencies i can just about bet. Problem is no one will ever change their minds. i even told the one about the oxalate poisoning problem with a strict plant based diet. She claimed that she would look into it. i tried a vegetarian diet years ago for 3 months, i cannot do it. Blood type Os need more meat anyways. Again, thank you Dr. Mercola for helping me to figure out what it was i was doing that caused my body to throw off these toxins and make my skin break out.

Posted On 02/05/2024

wannabeaknowitall

Sunflowerjanis, some people just can't do vegetarian. I was vegetarian in my 20's I was always sick. I had IBS and colitis. Feeling sick and weak all the time I went to see my doctor, he suggested I eat meat. I said, I don't like meat. He said try adding steak sauce n ketchup and try to see if that changes the flavor for you. Best doctor ever within a month I felt so much better.

Posted On 02/05/2024

MoMac46

To each their own I say. I wouldn't go vegan though. I have, have been vegetarian for 50 years I don't take any meds just vitamins, and follow Dr. Mercola's sound advice on taking control of my health. !'m also blood group O. I'm 78 doing ok so far. I have family and friends who have different food choices, I'm quite happy to feed meat eaters as well as others when having visitors. So whatever people decide is best for them is fine with me

Posted On 02/05/2024

badboy2

A surprise to me, but studies have shown that venison aka deer meat is the best source..... Venison has 20% more protein and 50% lower total fat content than beef, making it a healthier choice. Venison (deer meat) contains about 330 mg of L-carnosine per 100g serving. An extensive analysis of over 3,100 different foods revealed that the average amount of antioxidants in meat and animal-derived foods is approximately 98.5% less than in plant-based foods. So don't forget your fresh fruits and veggies.

Posted On 02/07/2024

Linda N

Cannot help but notice that the depicted chart shows both Omega 3's and Omega 6's result in creating 4HHE and Advanced Lipoxidation End products (ALEs)

Posted On 02/05/2024

epi-cure

My kind of rancher (you won't believe her age) www.youtube.com/watch Oh, I see, yur only in it for the music: www.youtube.com/watch

Posted On 02/05/2024

chrisphillips

i love it when food gets to be our hero!

Posted On 02/05/2024

Mercola_Fan

I eat bison frequently and stay away from jet fuel/oil. Just look at all those potato chips, amaranth chips, etc filled with high-heat baked with canola oil.

Posted On 02/05/2024

Lee1959

Canada oil, low acid (CANola). They found out how to get people to eat the stuff. Originally it was called rapeseed oil, but that did not go over well in their sales dept. because of the word "rape" in it. It is GARBAGE! But marketing it as healthy drastically upped its sales!

Posted On 02/05/2024
