

Welcome to a very special episode of my show. It's special for a couple of reasons. First of all, I'm recording in the Swiss Alps. No, seriously. I'm looking out over the snow-capped mountains while I sit here at a something called a Swiss Mountain Clinic. I'm here for 2 weeks doing all manner of strange European biological medicine remedies

I've had like six coffee enemas. I'm doing like biophoton therapy and this stuff called in diba therapy and hyperthermia on my liver getting vitamin IVs everyday and oxygen infusions. Did a 24-hour fast a couple of days ago along with a bit of colonic hydrotherapy, which was just absolutely Pleasant absolutely wonderful to watch green goo come out your butthole and pass by you in a little viewing chamber as a man named Bruno not kidding gently massages my colon from left to right for a good 45 minutes.

God bless Bruno. He made some stuff happen. If you want to learn more about that clinic, by the way, I did a podcast on it a while ago. Which I'll link to in the show notes for this episode and I also have a URL you can go to it's Ben Greenfield fitness.com/ Swiss Clinic is a web page where you can read up on this place just tucked away up in the hills in the Italian quarter in the Swiss Alps.

So if you hear goats, or I don't know Swiss cheese being made that's the reason because I'm outside on the patio right now recording this. So that's the first reason is this special podcast.

The second reason is that this is a solo of any guess except me yours truly and I decided. That I wanted to sit down and record this podcast for you because I got a little bit pissed earlier this week. As pissed as you can get when you're in the Swiss Alps and in a EMF and Wi-Fi free zone living a clean lifestyle, and I don't know maybe I do get a little ornery when I'm not allowed to have alcohol or coffee or red meat.

I don't have my Pellegrino on my Stevia and other vices. But speaking of vices, Vice the website released this article that created a little bit of a splash on the internet. It was called "the most overhyped Wellness promises debunked healthy skepticism about Keto colonics charcoal and more. It kind of struck a nerve because I think it was reading it as I was lying on my floor putting coffee in my rectum.

So I mean it was highly relevant to me at the time. But this article went into an attempts to debunk 44 different myths in wellness and most of it was total bullshit. I'm serious. And I decided that I want to do a two-part podcast episode. The first part this one you're listening to right now on the first 22 myths that Vice magazine attempted to debunk and the second podcast on the other 22 myths.

What I'm going to do is I'm going to go through these one by one systematically. I reference on some pretty robust show notes that I am creating for this episode. You will be able to find those over at BenGreenfieldfitness.com/vice podcast1.

**Myth number one:** Pink Himalayan salt is not more nutritious than table salts. While it may contain higher Trace Amounts of some minerals, the amounts are insignificant and afford no additional health benefits. So is pink Himalayan salt more nutritious than regular table salt? Well, first of all before diving into the question of Himalayan salt, I should mention the new research that came out last year showing that 90% of table salt is chock-full of microplastics.

Now don't get me wrong; microplastics have also been found in some sea salt. So you do need to be cautious of the source of any of your salts, but I'm pretty careful not to just grab table salt because it is purportedly equal to Himalayan salt. There is some interesting research about Himalayan salt and there are some reasons that I don't really use Himalayan salt very often at all.

It is pretty high in sodium and it does have a relatively good mineral content compared to table salt meaning it's a little bit higher. A link to three different research articles have shown Himalayan does have some amount of Trace mineral content that's a little bit higher than table salt.

However, there are some downsides to Himalayan salt that I think this article doesn't address but it is true that Himalayan salt may not be doing you any favors over regular table salt. A lot of Himalayan salt comes from Pakistan and a lot of them are sold pretty cheaply and they contain impurities. Fluoride contamination is one that's very common and while fluoride is great for your teeth, it cannot be that great for your pineal gland and for other areas where it can accumulate within the body. So Himalayan salt not only has microplastics in it. But only about 4% more trace minerals than table salt and tends to be contaminated with other elements.

One of the more concerning ones that I recently spoke with my friend Dr. Mercola about on a podcast is iron and especially for any man who's concerned about hemochromatosis or some of the Interior rusting and oxidation that iron can cause that. Also give you reason for pause to cannot choose Himalayan salt as your replacement for the say microplastic confused table salt.

So as far as the type of salt that I tend to choose and tend to go with one of my favorites is Celtic Sea salt. And this is the kind of grayish salt meaning it hasn't been bleached or washed. So it's higher in mineral content that you can find just about anywhere Safeway or Albertsons.

You can you can buy it on Amazon. Of course the trace mineral content based on mass spec analysis that I spoke with Dr. Robert Slovak about in a podcast that I did with him, which I will reference in the show notes. As I spoke about in my podcast episode of Dr. Robert Slovak in which we discussed the mass spec analysis of a variety of different salts Celtic rated. The highest on the trace mineral content of Celtic salt is about depending on the source about seven-and-a-half to 23% higher than Himalayan salt so that's one reason that I choose it.

But in addition to that, Celtic salt was shown to have almost non detectable levels of impurity contamination or iron and it does have as I mentioned a much higher mineral content. So not only is it more pure. But it is higher in minerals.

So my my takeaway on the comment about table salt is that yes pink Himalayan salt isn't necessarily that much more nutritious than regular table salt. But I still wouldn't eat regular table salt and I would instead choose something like Celtic salt and probably a close second to that would be something called Colina salt, which is another salt I consume regularly that is harvested from the Mexican Coast at the base of a mountain where water kind of trickles down over these rocks and collects at this Basin and so it's not getting microplastics from the sea.

This is actually coming from the mountains and that's a pretty good salt as well. Although they do wash it and they don't really wash or bleach the Celtic salt quite as much, one of the thing that I should note about salt is that when we look at some research that is done on natural sea salt consumption, it has been shown to confer some protection paradoxically for many people who aren't up to date on the latest research on salt against hypertension and also against kidney damage. This research did not have a control group that was consuming table salt to see if table salt has any antihypertensive or kidney protective properties.

That chalks yet another Advantage up to perhaps traveling with or having in your pantry some kind of a good mineral-rich salt because of the kidney and the blood pressure protection that can also give you so I will link of course as I speak about anything to the to the salts that I use as well as to some of this research in the show notes.

**So let's move on to the next myth: Lectins are not bad for you.** And vice says this family of protein compounds found in beans and other plants do not make those plants bad for you. Well, this this upset me quite a bit because when we look at the research on the prevalence of autoimmune diseases, which by the way are highly reactive when it comes to or highly affected by the consumption of lectins, there is a host of data that you can find on PubMed showing that lectins and also something called agglutinins, which are basically forms of gluten based protein produce a significant amount of immunoglobulin antibodies against those lectins. Is that aggravates the autoimmune issues which is concerning considering about 30% of food contains lectins.

I spoke with Dr. Steven Gundry about this in the podcast that I did with him. Now in addition to that with the growing prevalence of autoimmune and by growing prevalence what I mean by that is in America alone about 50 million as of the latest 2017 data Americans that's 20% of the population one in five people suffer from some form of autoimmune condition and that autoimmune condition is aggravated by 30% of the foods in our diet, primarily the lectins and agglutinin based proteins found in those foods. There have even been studies in which they've shown a complete remission or cure of autoimmune diseases in folks who follow a lectin free diet.

And that study also supplemented that lectin free diet with probiotics with prebiotics and with polyphenols. I suspect that they would have seen very good results even without the supplementation of the probiotics, the prebiotics and the polyphenols, but nonetheless for vice to come out and say that lectins are not bad for you, they're basically screwing one in five people who would read that and then go out and consume High lectin containing foods:

beans, legumes, soy products. None of which I'm against I mean hell I'm eating like sprouted legumes and lentils and all sorts of foods that do contain Trace Amounts of lectins while I'm here at this Swiss clinic, but at the same time if I had an autoimmune condition, there's no way that I would be doing that either

**Now the third myth: probiotics probably can't boost your mood, your immune system or your overall Wellness.** This was a real head-scratcher for me because when you go to the research which again I will link to in the show notes, the the latest research as of 2018 has demonstrated that probiotic Administration has positive effects on depressive feelings, even in healthy populations. And this is of course likely due to the gut brain axis and the effect of the bacterial profile on mood and emotion. Another very recent study showed that in both human and rodent models, probiotic formulations that included things like lactobacillus and bifidobacterium had a direct neurochemical effect on the central nervous system that affected anxiety like behaviors. So we know that probiotic Administration affects both anxiety and depression.

And then finally the nail in the coffin for me on this is a 2017 systematic review of the literature titled the effects of probiotics on depressive symptoms in humans. This review analyzed all the current body of research to date assessing the effects of probiotics on symptoms of depression in humans, and they reported several studies that showed alleviation of depressive symptoms.

There were some studies that did not. Yet for Vice to paint with a broad brush and say probiotics probably can't boost your mood your immune system of your overall Wellness, I think is an error and especially in people with dysbiosis or with any type of bacterial imbalance that could directly affect their mood.

I feel that probiotics are a worthy candidate to consider for people who struggle with depression.

**Alright the next myth: Kombucha isn't making you any healthier.** Yes. It has some Buzzy sounding probiotics in it, but they're not doing anything for you. Well, let's see what the literature actually says about kombucha, which is essentially usually a black or a green tea that's fermented 47 days with specific strains of bacteria.

Little bit of yeast little bit of sugar so the bacteria grows and I've done several podcast with folks who have written books about kombucha and the benefits of Kombucha. So first of all, remember when you're consuming kombucha, you're getting all the benefits of tea. So when you're consuming kombucha that uses a green tea starter you're getting all of the bioactive compounds the polyphenols in the green tea you're getting the research that they've shown on green tea for reduction and visceral fat Improvement in cholesterol balance assistance with blood sugar control, even reducing risk of prostate, breast and colon cancer.

There's a host of research on all of this. You are getting the antioxidants that have been studied in Kombucha and in rodent models and in this podcast, I will mention rodent models. Yes rodents are not tiny humans, but these studies do give us clues and there are four

separate studies showing that kombucha reduces liver toxicity caused by toxic chemicals in rodent models in some cases by at least 70%.

They've also shown that the acetic acid in Kombucha can kill off potentially harmful microorganisms in the gut and has very strong antibacterial properties specifically against candida yeast and infection causing bacteria. Yes, there are some people with yeast or fungal overgrowth who actually have a deleterious reaction to kombucha, but I suspect that's more due to the consumption of Kombucha that contains a high amount of residual sugars added post fermentation, then the actual bacteria or the compounds in the kombucha itself.

A few Studies have been done on the effects of Kombucha on markers that could affect heart disease, potentially LDL and HDL cholesterol showing a protection of LDL cholesterol particles from oxidation and also amongst green tea drinkers at 31 percent lower risk of developing heart disease. Kombucha has also been looked at in terms of its blood sugar controlling properties. And this was a rodent model that showed Improvement in liver and kidney function and also an insulin sensitivity. Although the human studies on blood sugar control are not robust, there was one review study of over 300,000 people that found that green tea drinkers had an 18 percent lower risk of developing diabetes. By Vice saying kombucha isn't making you any healthier, that is again a huge head scratcher for me based on the research not only in the black and the green tea that kombucha actually is but also on the microorganisms that kombucha it's self-contained that also confirm any of the protective properties that I just described so a nail in the coffin to that.

**The next myth is that natural sugars like agave syrup and coconut sugar aren't any better for you than the refined white stuff.** Now, I've certainly gotten on my soapbox before and said that when you navigate through let's say, you know Hudson News stand at the airport and you grab your healthy say sugar snap peas, and then turn over the label and it's got like the top two ingredients, Sunflower oil and let's say, you know organic agave syrup with unicorn tears. That is probably producing just as much fluctuation in blood glucose and glycemic variability and also inflammation due to the oils in that product as just say eating vegetable oil and sugar at the same time.

Let's take the example of coconut sugar. Coconut sugar is a product of the sap of the coconut palm. First cut into the tree they allow the nectar to flow out the mix that SAP with water then boil it down to a syrup and then they dry it and they crystallize it. When you compare coconut sugar to regular sugar well for granulated sugar, there's a minute amount of minerals.

Trace Amounts of sodium, Trace Amounts of calcium. When you look at the same amount of coconut sugar, the carbohydrate content is of course pretty much equal. So it's going to raise your blood sugar just as much as regular table sugar, but it's got six hundred and twenty-five milligrams of potassium, a hundred and twenty-five milligrams of sodium.

It has higher levels based on research and you can read about this from the food and nutrition research. It's higher levels of iron, higher levels of zinc, higher levels of calcium, Trace Amounts of phytonutrients. It's got polyphenols. It's got flavonoids. It's got anthocyanidins all trace polyphenols and I'm not saying that you should eat coconut sugar for your antioxidants.

However to compare it to table sugar. I mean even consider this it's glycemic index when you look at the glycemic index of coconut sugar. It has a glycemic index score of anywhere from 35 to 40 depending on what study you look at table. Sugar has been shown to have a glycemic index of 65, so table sugar is going to raise your blood glucose higher and faster than coconut sugar.

And so for the vice magazine article to say that coconut sugar is no better than table sugar. Well if I had the choice and I was going to choose a sweetener for a cake or I was going to you know, sweeten a ice cream that I'm making or anything like that. I would certainly choose coconut sugar over table sugar Hands Down based on the research.

**The next myth antiperspirant does not cause breast cancer antiperspirant does not cause breast cancer.** This is based on the aluminum-based compounds one of the active ingredients in many underarm antiperspirants. It's reported that it may be absorbed by the skin and we do know that the skin is of course just a giant mouth and it may have some effect on the endocrine system specifically in estrogen-like effect.

And because estrogen can promote the growth of breast cancer cells, some folks have suggested that aluminum-based compounds and antiperspirants may contribute to the development of breast cancer. Now, I'm not aware of many studies that have looked into this but I was able to dig up a few and there's one study in 2017 that looked at this whole aluminum breast cancer.

And specifically some epidemiological research on carcinogens what they found was that there actually was a higher amount of aluminum concentration found in the tissue of folks with breast cancer versus those who did not have breast cancer and they also found a higher amount of aluminum and folks who are using aluminum-based antiperspirants and deodorants.

Now for me to see those two pieces of data and for me to also see a case control study in which they took a bunch of underarm cosmetic products. And in this case, they analyzed 209 female breast cancer patients and 209 healthy controls. They also found the accumulation of aluminum in breast tissue in the folks who had breast cancer.

So does that mean that because the aluminum is there that it caused the cancer? Not necessarily, but stepping back and looking at this, people use aluminum-based underarm antiperspirants. Okay, and then we analyze those people who are using those and those who have breast cancer and are using those have a higher amount of aluminum in their breast tissue well for me, I'm going to play it safe.

I'm going to tell any female in my life that an antiperspirant that contains aluminum when you consider that there are a host of natural antiperspirants that do not contain aluminum is just not a smart idea. So I'm not going to say there's a Smoking Gun that shows that antiperspirants that contain aluminum cause breast cancer, but they're certainly enough anecdotal evidence and also indirect evidence of it potentially being an issue.

**Okay, next myth alkalizing your body with alkaline water is not a thing.** You can't change your body's pH through what you eat. Well in my recent interview with Robert Slovak on water, we did both agree that based on the pH change of water as soon as it hits your stomach that alkaline water is not staying alkaline when you consume it and is probably not going to give you any additional benefits.

That being said, there was a systematic review of the association between dietary acid load, alkaline water and cancer and this was this is actually looking at this because alkaline water is in many cases in some alternative Cancer Treatments something that is recommended. They found no evidence for any effect on diet acid load upon consumption of alkaline water.

There are some foods that have been shown to affect the renal acid production. The renal acid score of some foods does actually show that some foods are alkaline producing Foods. Lemon water is a perfect example one that actually Vice mentions in this. Another myth that can have a net alkalizing effect upon the body; green vegetables, dark green vegetables are another, but alkaline water does not seem to have that effect.

Now there was one rodent model, a three year survival study on a hundred and fifty mice they did find an increase in life. And a decrease in many of the accelerated aging factors that occur during the lifespan in the mice who drank alkaline water versus those who did not, so there is perhaps some kind of a physiological mechanism that's occurring despite alkaline water not affecting renal acid load that may be causing it to have some kind of a beneficial effect, but I think you need to be careful with many of these alkaline water machines past the water.

A metal plate could potentially occur or cause metal accumulation within tissue. In addition more alkalinity is not better and I was recently telling someone this just the other day. I had a friend who purchased an alkaline water machine. shoved it up to the Top Value, which I think is 9 to 10 and her children started drinking that water every day as their primary source of water.

And within I think it was two months one of her children had a seizure out of the blue and I'm not saying it was the alkaline water. But I think that shoving the body into too alkaline of a state can cause some potential metabolic damage or some kind of Downstream issues. So more is not better.

I'm a bigger fan of hydrogen-rich water. I'm a bigger fan of deuterium depleted water. I'm a bigger fan of reverse osmosis filtration, and I'm a bigger fan of structured water than I am of alkaline water and you can go and listen to my podcast with Robert Slovak, which I will link to in the resources for this podcast over at [bengreenfieldfitness.com/vicepodcast1](http://bengreenfieldfitness.com/vicepodcast1) if you want to kind of dig into some of the research on the structured water or on the deuterium depleted or in the hydrogen Rich water.

**Okay, next myth. That apple cider vinegar is good for salads.** It says apple cider vinegar will not cure acne or treat your acid reflux. Well, let's see what the research says about apple cider vinegar. Apple cider vinegar is made by crushing apples or apple cider to yeast and then

fermenting the sugars and turning them into alcohol. then bacteria is added to that alcoholic solution fermented and you get high concentrations of acetic acid as a by-product and that's the main active component in vinegar now.

There is research that shows that acetic acid and vinegar can kill pathogens and can act as almost like a natural antibacterial can also treat nail fungus.

It's been shown to be able to treat lice, treat warts, treat ear infection. And this is all based on Research. This is not like an old wives tale. It is also something that upon consumption and I've talked about this before about a shot of apple cider vinegar prior to a carbohydrate Rich meal. It has been shown to be able to improve insulin sensitivity during a high carb meal by nineteen to thirty four percent depending on the research that you look at significantly lowering blood sugar and insulin.

It reduces blood sugar by 34 percent after eating 50 grams of white bread, 2 tablespoons of apple cider vinegar before you go to bed can reduce your fasting blood sugar in the morning by 4% and numerous other studies in humans show that vinegar can improve insulin function and lower blood sugar levels after meals.

Apple cider vinegar has also been shown to reduce belly fat. There was one study from Harvard that showed that women who ate salad dressings with apple cider vinegar had a reduced risk of heart disease. numerous Studies have shown that a variety of sources of vinegar can kill cancer cells, can shrink tumors. some observational Studies have been shown to have been shown that vinegar consumption is linked to decrease rates of esophageal cancer and decreased rates of bladder cancer.

Okay, and yet Vice says Apple cider vinegar is only good for salads and I completely disagree. I do think that it has some health promoting properties.

**Myth number 9 you don't need to detox with a juice cleanse.** Well, speak of the devil. I'm here at a detox retreat. I have written an entire article at [BenGreenfieldfitness.com](http://BenGreenfieldfitness.com) about whether or not detoxification is a thing. Now the liver and the kidneys are your body's primary detoxification organs, as well as the skin via which you release quite a few toxins, which I'll get into when I discussed the myth on infrared saunas that device article discusses.

The liver during phase 1 and Phase 2 detoxification is going to neutralize and break into smaller fragments. Phase 2 is going to bind those two other molecules creating a new non toxic molecule. That's then excreted in bile or in urine or stool and several nutrients have been studied nutrients that are usually part of a detoxification profile.

To support both Phase 1 and Phase 2 detoxification Pathways, I'm talking about things like glutathione fish oil, indole-3-carbinol which you find in cruciferous vegetables as well as in supplementation form of vitamin B complex has magnesium. There are multiple studies that have demonstrated the efficacy of these type of nutrients for supporting proper liver detoxification pathways.

Now in addition to that, there are also studies that have shown specific so-called superfoods or you know, Fringe compounds to be able to support your detoxification like cyanobacteria. That's a specific type of bacteria found in spirulina. It's been shown via ion exchange binding to be able to significantly reduce heavy metal toxicity in tissue to remove over 85% of arsenic in tissue to prevent metal toxicity from occurring in rodent models. I will say when rodents were given fluoride. It's been shown to reduce accumulation in neural tissue to protect against heavy metal cadmium build up to attenuate Mercury accumulation in human testes.

You know, that's one of the few molecules that has a very large body of evidence to support its detoxifying activity other compounds like dandelion extract, like ginseng, like zinc also have been clinically proven to reduce heavy metal build up milk thistle extract in Studies have been shown to protect and promote the growth of liver cells to to fight oxidation to block toxins from entering the cell membrane. A similar group of antioxidants extracted from the seeds of milk thistle have been shown to be especially effective in promoting Liver Health and to enhance detoxification by preventing the depletion of glutathione. That's also something that you can get in a dandelion leaf or dandelion root. In addition to that.

Yes, Vice is correct when they say your body has a built-in detoxification system in the form of your liver and your kidneys, but just because your liver and kidneys are there, that doesn't mean you assume that you can just beat them up all day long, not consume any nutrients that support their function, not engage in any practices that support the release of the toxins via bile via urine and Via sweat, that the liver and kidneys are producing high levels of mercury of lead of aluminum to almost undetectable levels. I just recently published all my latest blood results on Twitter. If you go to [twitter.com/BenGreenfield](https://twitter.com/BenGreenfield) and scroll through you can see my latest comprehensive blood results. My heavy metal levels have dropped to Rock Bottom once I started to support my liver and my kidneys so I disagree with this myth as well.

I do think that some type of a regular detoxification protocol whether it's a weekly coffee enema or a daily infrared sauna, or frequent consumption of things like spirulina and dandelion and glutathione.

**The next is that activated charcoal is only helpful if you're in the ER and you need your stomach pumped.** So activated charcoal. There's fine odorless black powder and it is often used in emergency rooms to treat overdoses because it does have toxin absorbing properties, superheating carbon like would produce has activated charcoal and then the black powder binds to toxins or binds to let's say something that's poisoning you and food that you've just consumed which is why it's also relatively effective for food poisoning.

It is true. There is not much conclusive large-scale research on activated charcoal. activated charcoal may be able to assist the kidney because it can remove toxins derived from urea. the main byproduct of protein digestion in some animal studies do show that activated charcoal can help improve kidney function and reduce GI damage and inflammation in animals with chronic kidney disease.

In another rat study, rats with damaged kidneys were given four grams a day of activated charcoal and had significant reductions in intestinal inflammation and damage. another study

rats with chronic renal failure experienced improve kidney function and a reduced rate of kidney inflammation and damage upon activated charcoal consumption.

But in humans, there are also benefits. liquid and gases trapped in the intestine, bloating, many people deal with this. I take activated charcoal every time I fly on an airplane because of this, I'm not crop-dusting the entire flight sample of people with a history of excessive gas in their intestines.

They took about five hundred milligrams of activated charcoal three times a day before a follow-up intestinal ultrasound examination, and they were able to see a significant reduction in intestine. 34 percent of the participants were given it reduced their gas and improve GI symptoms.

There was also a 2017 study in which folks who are given activated charcoal had a significant reduction in bloating related abdominal pain. the European Food Safety Authority has reported that there's enough human evidence to support the use of activated charcoal to reduce gas to reduce bloating considering a lot of people deal with that.

There are definite uses for activated charcoal. 2017 review of studies on activated charcoal for diarrhea show that activated charcoal can prevent bacteria and drugs that cause diarrhea from being absorbed into the body by trapping the drugs and the bacteria on the porous textured surface of the charcoal and you know, I took activated charcoal yesterday.

I took it yesterday because I felt ill, I had bloating, I had gas. something I was doing during this detoxification was obviously affecting me. I don't know what it was. I took about five hundred milligrams of activated charcoal and within two hours, I was right as rain. I felt great again. admittedly that's purely anecdotal, but I certainly use activated charcoal quite a bit in my own diet, especially when I'm traveling, especially when I fly, especially when I'm eating suspect food.

**Okay, the next myth, myth number 11, charcoal toothpaste doesn't strengthen your teeth and might wear away your enamel.** Well considering that charcoal-based toothpaste is probably one of the trendiest Dental products around I think this is worthy of discussion.

There was a pretty new review in 2019 published in the British Dental journal in which they examine 50 different charcoal toothpastes and what they discovered was that although 96% of those toothpaste claim to have teeth whitening properties, they found that it could reduce any fluoride in the toothpaste completely inactivate the fluoride and yes, I'm not a fan of oral fluoride consumption, like swallowing fluoride or consuming fluoridated water.

But fluoride is good for the teeth and activated charcoal can inactivate any fluoride that might happen to be in the toothpaste that you're using. In addition to that, it was found that activated charcoal may actually indeed wear down enamel in the teeth and may cause some amount of dental damage. This is the first myth we are finally the myth number 11 where I based on the research.

I did upon reading this article have to agree with Vice and I was a little surprised when I found that not only is there very little research on the benefits of charcoal toothpaste, but because it is reducing the amount of fluoride in your mouth. And because it is potentially damaging the enamel on your teeth.

I will likely not be using charcoal toothpaste any longer. So congratulations Vice. over the course of forty-four different myths, you've convinced me to thus far switch toothpaste.

**The ketogenic diet is not a magical weight loss trick.** It works like every other diet by putting you in a calorie deficit, but could also lead to nutritional deficiencies. Ketogenic diet and nutritional deficiencies. Is it true? Potentially contemporary ketogenic diets, standard ketogenic diets, are usually limiting carbohydrates to about 25 to 50 grams per day.

So when you when you limit carbohydrates to that extent, there are some potential deficits that can accumulate, aside from the glaring factor that if you're active that that net reduction in glucose may result in some amount of thyroid deficit due to unavailable glucose for thyroid conversion of T4 to T3 may result in some amount of glycoprotein degradation in joints and for an active person, I think 25 to 50 grams is way too low.

I mean, I'm in a state of nutritional ketosis almost 24 hours a day. I eat a hundred to 200 grams of carbohydrates per day, but that's because I am an athlete in training and I prioritize getting enough glycogen in my body to be able to support things like thyroid, things like my endocrine system, and I have multiple articles on my website in which I've highlighted some of the endocrine issues, particularly thyroid and testosterone issues that I experienced by limiting carbohydrates to 25 to 50 grams a day during about a year and a half of training with a very low carbohydrate diet, a ketogenic diet. Studies have shown that a ketogenic diet can cause a deficiency in potassium.

Okay, so vice is on to something there. dietary potassium deficiencies are one issue. This is why High mineral intake, high potassium intake can be useful for folks on a ketogenic diet because when you dump glycogen you also dumped water and you dump minerals, this is also why low amounts of sodium can also be a nutritional deficiency that is quite common in folks following a ketogenic diet. Dietary potential renal acid load on a ketogenic diet that is rich in meats and also includes a lot of things like let's say coffee, which I know a lot of ketogenic proponents consume.

Not that I have anything against coffee, but when you at the same time are not eating a lot of alkalizing fruits or vegetables, you can create a net renal acid load, and this has been shown in literature that can further strip minerals from your body that net metabolic acidosis that can build up. and of course, we've already established that just drinking alkaline water is not going to fix that while consuming alkaline rich minerals and some amount of alkaline Rich fruits and/or vegetables. Which is why I'm a big fan of a plant Rich ketogenic diet, or if you're going to go more like a carnivore ketogenic approach, or you have issues from a dietary or gut health standpoint with consumption of plants including plenty of minerals in a ketogenic or carnivore type of approach, folate deficiencies have been shown to be an issue on a ketogenic diet.

Those could be fixed by say consuming liver. Or consuming some type of folate sub supplement vitamin C are another that's another deficiency on a ketogenic diet that a big that again could be fixed with supplementation or with the inclusion of vitamin C. And small amounts of say berries, for example, there are not a lot of other nutritional deficiencies aside from minerals folate and vitamin C that have been shown in research to be an issue on a ketogenic diet.

So yes, the vice article is correct, but at the same time most of this stuff can be overcome by eating adequate carbohydrates, which you can do and still stay in a state of ketosis and then including minerals including vitamin C. And including folate so it's I think they're kind of sort of right with that myth but at the same time, it's not that big of a deal if you're eating a ketogenic diet and being smart about it.

**The next study lemon water will not boost your metabolism.** I agree on that. It says it won't detox your body either but the acid content can eat away at your tooth enamel. Well lemon water like I mentioned it is alkaline. It can contribute to a reduction in that metabolic acidosis or an increase in alkalinity.

It's also very high in vitamin C. It does contain Trace Amounts of folate and potassium, speaking of nutritional deficiencies on a ketogenic diet. Lemon water also has antioxidant properties, flavonoids from citrus fruits. Like lemon are linked in multiple research studies to blood circulation benefits, to insulin sensitivity benefits, and also to a reduction in oxidative stress and oxidative damage, although the oxidative stress, oxidative damage piece was in rodent models. Lemon water also contains high amount of citrate and has been shown in six different human studies to be successful in helping to treat Kidney stones, probably because it prevents calcium from binding with other compounds and forming stones, and restoring the ability to prevent kidney stone formation. In addition to that, there is some evidence that it may help to relieve constipation.

This it is not going to necessarily help you lose weight. It's not going to fight cancer. It's not that great of a detoxification compound. And yes, if you are not careful, drinking a lot of lemon water can cause acidity in the teeth, although if you're smart, it's not that hard to drink something and not splash it all over your teeth.

So starting your day with a squeeze of an entire lemon even with some sea salt in a glass of water, as many Wellness folks in the wellness sector Advocates or encourage, I don't think is an issue at all. I think the pros outweigh the cons just don't like smear it all over your teeth.

You can use this really cool high-tech new invention called a straw, you can rinse your mouth with plain water and then spit that water out to get rid of a little bit of that tooth enamel. you can eat foods that neutralize acids such as dairy. as a matter of fact Xylitol like Xylitol gum can also alkalize your mouth and can neutralize acid.

You can maybe not brush your teeth right after you drink your lemon water and you can even help to support your teeth enamel by eating a diet that has been shown to be very helpful for the tea. Namely using an approach like the Weston A. Price approach. He was a dentist and

he traveled around the world and he used a lot of nutritional strategies such as a reduction in processed sugar, increase in organ Meats, Dairy all sorts of helpful compounds to support teeth and support bones.

So the lemon water, kind of like the ketogenic diet, is something that can pretty easily be avoided if you're not an idiot.

**So number 14 dark chocolate is probably not better for you than other sweets.** They say that Studies have shown a connection between chocolate consumption and Better Health, but that doesn't prove that chocolate is the reason well, I certainly agree that no.

Dark chocolate is good for you. I don't think Vice is saying that that the cacao and dark chocolate is not beneficial. We know cacao contains a variety of antioxidants particularly flavonoids. We know cacao has high levels of mineral, high levels of antioxidants. We know chocolate itself is rich in magnesium, is rich in zinc, and we know that studies on the flavonoids from chocolate have shown that it can stimulate nitric oxide production in the body causing a reduction in blood pressure.

A 2015 study found 60 people with type 2 diabetes and high blood pressure who ate 25 grams of dark chocolate daily for eight weeks had a significantly lower blood pressure compared to a control group that 8 white chocolate. another 2017 review on a host of studies on dark chocolate showed that it would have an improvement in blood pressure and reduce risk of vascular disease. the polyphenols and the theobromine in cholesterol can have cholesterol or in a chocolate rather can have cholesterol regulating properties. One 2017 study showed that eating dark chocolate for 15 days in a row resulted in a significant increase in HDL cholesterol levels, another study in 2018 showed that consuming large amounts of 70% dark chocolate increased immune activity and supported the immune system.

Another human study over the course of eight weeks with 30 grams of 85 percent dark chocolate each day reduced inflammatory markers in people with type 2 diabetes another six-month study from 2018 found that eating two grams of 70% dark chocolate each day could lower fasting glucose levels and reduce insulin resistance.

I've talked before about the effect of these flavonoids, specifically in cacao on increasing cognitive performance and even helping to prevent neurodegenerative conditions, like Alzheimer's disease and Parkinson's disease. So the majority of the benefits are likely not as you could imagine from the milk and the sugar and some of the compounds that are added to the cacao to turn it into that nice addictive chocolate bar that you might have after dinner each night, but small amounts of a cacao extract or small amounts of dark chocolate per day have a pretty hefty amount of both human and rodent research behind them on antioxidant, on heart disease risk, on anti-inflammatory effects, on insulin resistance, and on brain function that suggests to me that when Vice magazine says dark chocolate is probably not better for you than other sweet.

Well, if somebody puts two grams of dark chocolate in front of me and 2 grams of gummy bears, based on the research I've seen, I'm reaching for the dark chocolate and I will also argue that it is better for me than the gummy bears. So I think Vice is wrong on this one.

**All right prepare yourself for this. Gluten is perfectly fine for the vast majority of people.**

Well, this is very similar to what I was talking about with 50 million Americans with autoimmune disease earlier in this podcast and the issues with lectin remember that I mentioned. that same study also looked at gluten and found that it also was a significant aggregator or aggravator of autoimmune issues in addition to that non-celiac gluten sensitivity, like folks who don't have celiac disease.

Is something that is included in the spectrum of diagnosable gluten Related Disorders, and this is something that there have been many books written about showing the effects of the gliadin proteins in causing direct intestinal damage. gluten and gliadin can also reduce the synthesis of nucleic acids like DNA and RNA.

They can alter cellular morphology and motility. They can alter oxidative balance. They can alter intracellular contact. They have been shown, specifically wheat germ agglutinin, to trigger non-celiac gluten sensitivity like symptoms such as a lot of the irritable bowel issues a lot of the bloating a lot of the gas.

Even a lot of the neural inflammation that is discussed in the book Grain Brain. in addition to that, many gluten-containing grains are chock-full of fermentable fodmaps, meaning oligosaccharides, disaccharides, monosaccharides, and polyols; all of which have been shown to contribute in folks who are FODMAP sensitive, to neurological disorders, to fibromyalgia, to psychological disturbances, to dermatitis.

I'm not saying gluten in and of itself is bad. I'm in Europe. I've been eating bread and pasta before I arrived at this Swiss clinic and while I'm on a strict gluten-free diet here, I think that in the absence of glyphosate and herbicides and pesticides that can render the gut barrier permeable and cause a lot of these large gluten based proteins to cause a lot of the issues that I am discussing.

I think that by eating a non-GMO organic source of grain that you can limit a lot of the issues that I think herbicides and pesticides have when they go hand-in-hand with gluten, but at the same time if you read the book Grain Brain, if you read the book Wheat Belly, you can see there's a lot of data that gluten is not fine for everybody.

I think for someone with a perfectly healthy gut, who's eating an organic, non-GMO source of grain, that gluten is not that big of an issue. But for them to say gluten is perfectly fine for the vast majority of people, and for you to consider that 50 million Americans and that was data from 2017. So it's probably higher than that.

Now, I think that very similar to lectins, Vice is not doing people a very good service by saying this so non-celiac gluten sensitivity is a thing. You cannot simply paint with a broad brush and say gluten is just fine for the vast majority of people because it's not.

**Okay. The next study You Can't Sweat out toxins.** sweating is a bodily function that regulates temperature when you're hot, not a means of excreting waste or removing toxins. Are you effing kidding me? There have been studies since the early 2000s monitoring elimination of Bio accumulated toxic elements in Blood and in urine and in sweat, they have found that sweat is a significant way to get rid of over a hundred and twenty different toxic elements. one systematic review done in 2012 showed enormous amounts of arsenic cadmium lead and Mercury being eliminated via the sweat via the skin, your body's largest detoxification organ. There is a host of data. I was just looking at a physician's textbook the other day on the use of hyperthermic treatments for metal detoxification and for cancer.

I personally am doing full body, Four hour hyperthermic treatments while I'm here at this Retreat. I do infrared sauna treatments every day. I told you about my reduction in heavy metal accumulation earlier. I cannot even freaking wrap my head around why Vice would say that the only reason you sweat is to keep you cool.

That is simply not true. science has shown again for now almost two decades that sweating is incredibly important to Mercury and other metal detoxification as well as reduction and things like a flame retardant toxicant, accumulation bisphenol or BPA accumulation. I'll link to all the research here in the show notes, but this one is just I don't even need to say that much about it just shocked me as did.

**The next myth number 17 that infrared saunas do not detox.** Well, I don't need to even address this for very long a period of time because I just told you about all of the research on sweat now in addition to that as far as the actual research on infrared saunas saunas in general. Regular sauna practice, whether or not it's infrared, has been shown to improve heart function.

And one of the studies on that was a far infrared dry sauna treatment for 15 minutes at a time that showed an increase in heart rate variability higher levels of plasma brain nature peptide concentrations higher levels of bdnf. And that was not a regular sauna. It was an infrared sauna. sauna has also been shown to help to lower chronic pain in humans.

Clinical studies decrease symptoms of pain and stiffness caused better insulin sensitivity in folks who had type 2 diabetes. It's been shown to improve cognitive behavioral profiles and people lifting mood probably due to the dopamine increase lower self ratings for pain, depression and anger.

There are a host of studies on not just saunas, but also infrared saunas on detoxification elements, cardiovascular elements, heat shock. In production longevity and a host of other benefits. Yes, many of those studies were done on folks who are using a regular dry sauna like the Finnish men study, but there are other studies that show that infrared saunas specifically probably due to the effect of the bio photons and also the wavelength of the infrared penetrating more deeply into the tissue causing a greater amount of sweat produced.

There's something unique about an infrared sauna. That results in benefits, especially if it's hot enough that go over and above a regular dry sauna and definitely above a steam sauna.

And I'm careful steam sauna as anyways, just because a lot of gyms lot of health clubs. They don't they don't filter that water that you're sucking in a steam room or in a wet sauna.

So I'm pretty careful with those. I personally just own and use something called a clear Light low EMF infrared sauna.

**So myth number 18 coconut oil will not help you lose weight will not lower your cholesterol or kill germs or viruses.** There are evidence-based health benefits of coconut oil that go on and on and on, so not only is coconut oil currently being studied as a treatment for epilepsy for Alzheimer's and for other conditions as you can read about in a book such as Dale Bredesen's End of Alzheimers. There's also I believe it her name is Mary Newport has some very good books on coconut oil on Amazon that you can look up. We know anecdotally that there are many populations that eat over 60 percent of their calories from coconuts like some South Pacific Islanders who when studied, despite having high genetic risk for heart disease were found to be in excellent health with very low rates of heart disease.

The catawbas are another very good example of that. One study found that consuming 15 to 30 grams of medium-chain triglycerides derived from coconut oil could increase 24-hour energy expenditure by about 5%. So that's a hundred twenty calories per day that long-term could actually result in some weight loss benefits.

We know that the 12 carbon lauric acid that makes up about 50% of the acids and coconut oil forms a substance called Mana Lauren in both lauric acid and Mana Lauren have been shown to kill harmful pathogens like bacteria. Like viruses, like fungi, not only in the mouth, which is a reason that oil pulling can be beneficial but also in the gut coconut oil has been shown to help to kill staphylococcus.

Aureus like MRSA very dangerous pathogen. It's been shown to kill yeast candida albicans, a common source of yeast infections in people. Coconut oil has also been shown to have significant appetite stabilizing and satiating effects making you likely to consume less calories. When you include small amounts of coconut oil or medium chain triglycerides in your diet, they have been studying coconut oil specifically in conjunction with a ketogenic diet in epileptic patients as a way to increase. The rate at which one can enter into ketosis although admittedly. If you're just trying to save on calories Ketone salts or Ketone Esters are still probably better but coconut oil has benefits in the case of reducing seizures in epileptic children.

Coconut oil raises HDL. In one study of 40 women coconut oil reduce total and LDL cholesterol and increased HDL compared to soybean oil. I'm not saying that a reduction in LDL cholesterol is associated with a reduced risk of heart disease because it's not, but at the same time if there is a reduction in particle count or an increase in particle size or reduction in small LDL particles or a simultaneous increase in HDL.

That does suggest an improvement in the cardiovascular profile of folks or including coconut oil in their diet. And then we also know that coconut oil has many studies many studies showing a reduction in symptoms of eczema, which to their credit Vice does say the eczema

relief is legit. So they do admit that it's also been shown to be able to block about 20% of UV rays from the Sun.

Meaning it's effective as a week sunscreen. If you can't get your hands on sunscreen, coconut oil can work pretty well. It's protective against hair damage and it has like I mentioned a little earlier via process called oil pulling been shown to be able to kill many of the harmful bacteria in the mouth, improve dental health and even reduce bad breath or halitosis. consumption of medium-chain triglycerides has been shown to lead to an improvement in brain function in patients with milder forms of Alzheimer's and also to reduce symptoms.

Finally, coconut oil consumption has been shown to be able to reduce visceral fat. One of the worst forms of belly fat lodging in the abdominal cavities and around other organs. in one study on 40 women with abdominal obesity supplementing 2 tablespoons of coconut oil per day led to a significant reduction in that abdominal obesity over a period of 12 weeks

Okay, so when they say coconut oil will not help you lose weight lower your cholesterol or kill germs and viruses, again There is a host of data that shows that that is a lie and vice is just publishing this to probably piss a lot of people like me and get extra traffic to their website. That's all I can figure out because obviously all of you listening to this are probably going to read the article, right?

So I guess what they're saying what they're doing here is working a little bit but hopefully this replies helping you guys out a little bit to be able to navigate some of the lies the media spreads and why just because something's written on a popular website doesn't necessarily mean you should believe it.

**Myth number 19 or oil pulling is not Dental Care.** They say if oil pulling with coconut oil is doing anything for your oral health is likely from the mechanical motion of swishing not because it's disinfecting or decrease or detoxing your mouth while I already mentioned the effect of lauric acid and Mana Lauren on on.

The gut on candida on staphylococcus and also the human studies on oil pulling in reducing Dental bacteria in addition to that a systematic review done in 2017 on oil pulling for maintaining oral hygiene and oil pulling by the way, I guess I should say this at y'all. I do it every single day for about 10 minutes you swish a bunch of oil in your mouth.

Usually something like coconut oil, sesame oil is another popular one, sometimes sunflower oil. There are many companies on a. On that cell a blend of different essential oils that have different antibacterial properties. You swish you swish swish. Then you spit out preferably not into the sink or the toilet because that oil can clog the pipes but into a trash can and then you rinse with water and you switch the water around and you do that a couple of times you spit everything out.

And you know my local dentist prescribes oil pulling and gives a special oil pulling oil to all of their patients all of oil and coconut oil are probably the two easiest and most common oils to

pull with well this systematic review on oil pulling for oral hygiene found that oil pulling is incredibly effective on improving.

Oral hygiene and cites a ton of different research studies on sesame oil on olive oil on coconut oil, on plaque scores, gingival scores, bacterial colonies in the mouth and shows that oil pulling isn't effective preventive oral hygiene method when practice daily period okay. I mean we're talking about over 35 different studies on this practice which has been a part of oral hygiene as a traditional folk remedy practice in Ancient India for a long time.

I'm never one to say just because people have been doing it for thousands of years that it's good. I don't like it when folks say, you know traditionally done for thousands of years and some remote region of China. I don't think that necessarily means that it's right. I mean people were Eating other people in some regions of the world for a long time and I don't think that means that we should eat our neighbors, but at the same time oil pulling is not cannibalism and it is something that has been shown to be effective.

**The next myth the claims about collagen supplements are way over hyped taking them won't give you nicer skin or better hair.**

Let's see what the latest 2019. Systematic review of Dermatological applications on oral collagen supplementation actually says. 11 studies with a total of eight hundred and five patients were included in this review. eight studies used collagen hydrolysate 482 24 weeks for the treatment of pressure ulcers cirrhosis skin aging and cellulite to studies use collagen tripeptide.

Once that I use collagen dipeptide almost every study showed o, Improvements in skin elasticity and hydration we're talking about anywhere from 2 to 3 grams a day considering I typically use anywhere from 20 to 40 grams of either collagen or Aminos each day based on some of the research that Mark Sisson has presented on his website on collagen he's big on collagen. granted he sells collagen.

Granted I sell amino acids, but oral collagen supplements have been shown to increase skin elasticity, increase skin hydration, increased dermal collagen density and collagen supplementation based on this most recent review in the Journal of drugs for Dermatology found that it is reported as generally safe with no reported adverse effects and a host of benefits for skin quality and for hair quality and for cellulite. so I am a huge Fan of bone broth. I am a huge fan of amino acids. I am a huge fan of collagen, preferably in a hydrolysate or a tripeptide or a dipeptide form based on the research that I've seen. So when they say the claims about collagen supplements are way over hyped. I mean, I would say there are some folks who say it has this massive anti-aging effect that I don't think it has but when Vice says taking them won't give you nicer skin or better hair.

That's simply not true and it's been shown in many studies that it can be okay.

**Weighted blankets aren't a treatment for mental health issues.** Weighted blankets are heavy blankets that a lot of people swear by for increasing sleep onset, for decreasing

anxiety, for decreasing symptoms of insomnia. And when we look at the evidence, the best evidence to date comes from a study done in 2015 in the Journal of sleep medicine and disorders in which they studied 31 adults with chronic Insomnia. And they gave them weighted blankets. This was a self-report study and it was not a sleep lab study meaning they won't using plasma geography or brain wave measurements to measure sleep but a significant number of the study participants, meaning eighty percent of them reported getting better sleep and feeling more refreshed the next day.

Probably because the weighted blankets as was hypothesized by the researchers who led the study May stimulate the release of neurotransmitters and activate the parasympathetic nervous system. Another study looked at children with ADHD. 42 children aged 8 through 13 with ADHD Saw a significant reduction in the time that it took these kids to fall asleep and the number of middle of the night Awakenings. another research study on kids with autism spectrum disorder found that the weighted blanket did not necessarily have an effect on sleep but the children all preferred to sleep with the weighted blanket. It's doing something I have recently begun to use a weighted blanket on top of my comforter as just to trial it and see what it's like. I think it's very comforting. I think it's very soothing. There's something about it that is doing something many of these studies suggest that is indeed the case and again the Journal of sleep medicine and disorders the title of that study was positive effects of a weighted blanket on insomnia if you have insomnia, I definitely think it's worth trying.

And they say it's not a treatment for mental health issues, but yet in children with ADHD and to a lesser extent in children with autism it is at least improving Sleep Quality, which I think is is hugely beneficial. So I would not throw out your weighted blanket. I would not discount the idea of buying one.

**Next organic cotton tampons and menstrual cups aren't safer and don't protect you from toxic shock syndrome.** This is based on a variety of different articles floating around the internet's that say that organic tampons are better because tampons could act as Aubrey Marcus said when I had him on the show, Pussy cigarettes.

I certainly agree. I haven't seen any evidence that the body is going to be overloaded when you use a non-organic tampon to the extent that the kidneys and the liver cannot keep up with the amount of toxins absorbed by those and the body's going to shut down and go into toxic shock syndrome. I think that's fear-mongering.

However, the vagina ladies is the most absorbent part of your body anything you put inside can easily be absorbed through the mucous membrane and then into your bloodstream. And the vagina is highly absorbent. So whatever is in the tampon could eventually end up in your body. You have mucous membranes in your eyes.

You have them in your mouth. You have them in your gut, but the vagina is definitely very similar to those other tissues in that it can absorb compounds from anything that is put into it. That is why some Pharmaceuticals are prescribed as a vaginal suppository or similarly as a rectal. There are not that many studies that show pesticide or dioxin absorption through the vagina to things that have been cited as chemicals of concern in conventional tampons, but

there certainly are some studies that show that there is a small amount of pesticide absorption. There is a small amount of dioxin absorption. There is a small amount of asbestosis absorption. All three are actually found in conventional tampons. As far as pesticides, 1 independent non peer-reviewed study found pesticides as something that was in regular non-organic tampons.

So this is one of those issues where toxic shock syndrome a rare and potentially fatal condition caused by a toxin producing an overgrowth of bacteria that has not been shown to be caused by non-organic tampons. However, higher levels of toxins and cotton tampons versus regular tampons and higher levels of toxins overall in conventional tampons, especially those that are scented have been shown to be a thing and this is one of those deals where kind of similar to say.

Just like the antiperspirant one that I did there's not a Smoking Gun. But at the same time if I were you ladies, I would play it safe considering that just as there are organic non-aluminum or not organic, but not aluminum sources of antiperspirant there are organic tampons. And I think it is worth using the organic versions based on the fact that your vagina is basically a giant mouth.

Those are the first 22 myths from Vice and I'm going to link to that article on Vice in the show notes as well as all of the research studies that I have cited in today's podcast over at Ben Greenfield fitness.com Vice podcast one.

I'll be coming at you soon with the second part of this podcast, which goes into everything from eating placentas to microwaves to crystals to meditation. But until then leave me your questions, your comments, your feedback, any argument you have for or against me or this article over in the show notes at [BenGreenfield fitness.com/Vicepodcast1](http://BenGreenfieldfitness.com/Vicepodcast1)