

Bringing Back Traditional Cheese-Making — A Movement to Redefine Cheese as a Superfood

By Dr. Joseph Mercola

Dr. Joseph Mercola:

Welcome, everyone. Dr. Mercola, helping you Take Control of Your Health. And today you're in for a real treat because we have back with us, Ashley Armstrong, who is, if you haven't read her many previous articles, so she writes a weekly column for us, a regenerative farmer and one of the most informed individuals on the practical implementations of bioenergetic medicine, which is the philosophy of that rather than the form. It's a philosophical approach to how to eat and optimize your biology for maximum energy. And that's what it's all about, creating maximum energy, and I'm actually writing a whole book about that. It's called "Cellular Health", and Ashley was a great assistance to me in that book.

And she has also done some other great things because, as you well know, she has a farm, her personal farm, of 2,000 chickens, and she's creating many more. So, when you have chickens, you have a problem with predators. So, she has introduced me to a breed of animal that is called a livestock guardian dog. I mean, it's not a breed. That's a type of animal that fills this role. And one of the most common breeds is the Great Pyrenees, and they're bred with other species, like the Anatolian and some others. And thanks to Ashley, I was able to secure a male, and his name is Joy. And Ashley gifted me her new puppy, who is now three months old as we're recording this, and she's at my house now with Joy. It's his future mate. They will be having puppies next year, and we'll probably have a litter of at least half a dozen, maybe more. And I'm not sure what we're going to do with those, but we'll find-

Ashley Armstrong:

Very important, though, Joy is not related to Grace. Joy came from a different farm.

Dr. Joseph Mercola:

Yes. He came from a farm in Tennessee, and Ashley's farm is in Michigan. No relationship at all, though they look really similar, there's a lot of characteristics. But dogs say that about people, too, I'm sure, they all look the same. So, it's been a great delight, and I'm really glad that we have them. So, with all that preface, we're going to talk today about a really important topic, which is cheese. I had not consumed cheese for probably two decades. I may have had it occasionally, but consistently avoided cheese for over two decades because I noticed that when I ate it, my kidney function, which was already compromised from mercury, from having my amalgams removed improperly from a non-biological dentist, was further compromised when I ate regular cheese. And I didn't know why or how, but it was. It was very clear. I did many experiments to confirm that, and I knew without any shadow of a doubt that my kidney function deteriorated quite dramatically when I had cheese.

But Ashley helped me understand that there is a reason for that, that most of the cheese that's consumed in this country should not be consumed because it's unhealthy, even though the base of the cheese, which can be from Amish, organic, regeneratively raised cows that produce milk, raw milk, I mean the finest raw material to start with, but then they have to use an enzyme to create the milk. It's called rennet, and if it's used synthetically, they call it plant-based to greenwash it, then there's lots of complications and problems. So, I am going to let Ashley do the talking now since she's here, and she is going to explain this and a lot more about the cheese. And the reason we're talking about this, her cheese from these Amish farmers is going to be available very shortly. So welcome and thank you for joining us today, Ashley.

Ashley Armstrong:

Thank you, Dr. Mercola. It's always a pleasure to chat with like-minded individuals, and I am so happy that Grace is doing well. It provided so much joy for me to see her, so I can't wait to see her and Joy together sometime soon.

Dr. Joseph Mercola:

Yeah, that'll be great.

Ashley Armstrong:

Yeah. And then next year with their puppies, that will be amazing. That will be fun. So, for anyone that has a farm or are looking for a livestock guardian dog, stay tuned next year for Grace and Joy's litter. Cheese is one of my favorite topics, and it's honestly one of the first things that I learned from Dr. Ray Peat because I avoided cheese for so long. Mainstream tells you how bad dairy is, right? I mean, you saw problems with your kidney function, but mainstream advises you against dairy, and instead wants you to use the plant-based alternatives where yeah, you can make plant-based alternatives of cheese in a lab. It does not compare nutritionally at all. And cheese was a staple in our ancestors' diet. We've been consuming cheese for close to 10,000 years, and it was a staple because it could be taken with them on trips when they explored new areas.

So, cheese is one of my favorite things. And I think one of the most important reasons for consuming cheese is the calcium component. And I know so many people pooh-pooh the idea of calcium because a common theme in mainstream is that calcium intake leads to calcification, when that's just so false. And that's where I learned from Dr. Ray Peat, no, calcification is caused by a low calcium intake. And this, I think, is the really fascinating part. So, Dr. Mercola, what do EMFs do to our cells? What happens when our cells are exposed to EMFs?

Dr. Joseph Mercola:

Well, from a mechanism standpoint, it's very similar to what the other mitochondrial poisons do, in that those other ones would be seed oils, which you're quite passionate about, as I am, and also estrogen.

Ashley Armstrong:

Yep.

Dr. Joseph Mercola:

And you say, "Well, I don't take estrogen. I'm a male. What is an issue?" Well, there's something called EDCs, endocrine-disrupting chemicals, which I think are misnamed, they should be estrogen-disrupting chemicals with almost every one of the EDCs, which are predominantly in plastics, and we are bombarded with plastics. And I don't know which issue is worse, they're both terrible. But they interestingly, that and EMFs, all have the same mechanisms. I first understood the mechanism when I wrote a book on EMF and studied it really carefully, studied it for a few years before I wrote my book, and the mechanism is quite simple. It involves calcium, as you suggested, in that the concentration of calcium outside the cell, the extracellular of the calcium, is about 50,000 times greater than that inside the cell.

So, there are, in the case of calcium, there is a type of receptor on the outside surface of the cell membrane which is called the VGCC, the voltage-gated calcium channel receptor. And it's thought that when you are exposed to EMFs, it somehow catalyzes and triggers this, and it allows that calcium to go inside the cell. And once it's inside the cell, it increases the release of superoxide, which is reactive oxygen species, and then nitric oxide, which is a reactive nitrogen species, and it makes another reactive nitrogen species which is called peroxynitrite, which is really, really terrible, and many healthcare professionals aren't aware of that.

Some even molecular biologists, which should know better, haven't even heard of that, I could think of a few in particular, because it's a relatively new concept. But nevertheless, this peroxynitrite is more toxic and damaging in hydroxyl-free radicals because it lasts about 1,000 times longer so it can travel outside the mitochondria, even between cells, and cause tissue damage wrecking your DNA and tissues. So, all this extra calcium is part of that trigger, and perhaps you can help us understand how that calcium in the cheese and dairy, ideally raw dairy taken from regeneratively-nurtured cows, can help that situation.

Ashley Armstrong:

So, the same mechanism that estrogenic foods like flax and plastics and things like that, the same mechanism applies here. When your calcium intake is low, that causes the parathyroid hormone, the PTH, to rise, and guess what that leads to? An influx of calcium into the cells.

Dr. Joseph Mercola:

Same thing.

Ashley Armstrong:

Same mechanism. Same mechanism. So that raises the stress metabolism, right? The cells aren't structured properly so they don't function properly, so increasing stress, increasing inflammation. And the biggest thing that parathyroid hormone does, PTH, is it's one of the main bone regulators, and so when PTH is elevated, that causes an increase in bone resorption and a decrease in bone formation. So, it's basically increasing the body's requirements to go mine for calcium in your bones because you're not consuming enough dietarily. Your blood level of calcium is so important to your homeostasis function that your body does a really good job keeping that in a very narrow window. So, calcium blood tests are kind of meaningless because

your body has to keep that or else you will die. And so, it keeps that very narrow window by regulating your dietary intake and then pulling from other parts of your body. So, when your calcium intake is low, that leads to elevated PTH, more calcium influx into the cell, causing a whole host of metabolic problems, increase in stress, and then a decrease in the amount of bone formation.

So, there's well-documented studies showing there are increased calcification rates, increased bone problems, with a low calcium intake. And the biggest issue that we're seeing today in modern times is that it is very hard to get calcium in your diet unless you consume dairy, and it's very easy to get phosphorus. And so, Dr. Ray Peat discussed the calcium-to-phosphorus ratio, it's a very delicate balance of minerals in our body, and the studies are very clear, we want a higher calcium-to-phosphorus intake in our diet. That leads to a whole host of metabolic benefits, health improvements, increase in bone health, cardiovascular health. And in modern times people are discouraged from eating dairy, so their calcium intake goes way down, and then it's very easy to get phosphorus. So, phosphorus is going to be high in grains, meat, and then unfortunately, as preservatives and additives. So, phosphates are increasingly being used in various industries as preservatives. In fact, they're adding phosphates into industrial-made cheese to help with the melting capabilities and preserving the cheese because it's just like a dead material.

So, phosphates are sneaking their way into the food system, and the best part about it is you don't have to put it on the label. It isn't necessarily on the nutrition facts. And so again, just another danger of relying on heavily-processed food and the importance of making your meals from scratch. So, in modern times, everyone is able to hit their phosphorus intake pretty easily. It's becoming increasingly more challenging to get your calcium intake. We want our calcium-to-phosphorus ratio to be as close to 1:1 as possible, and we see benefits when that is slightly above, and you can track that on Cronometer. It's so easy. You can just put your food intake that you have for the day, and then Cronometer will show you your calcium and your phosphorus intake, and then you can assess the ratio.

Dr. Joseph Mercola:

Soon-to-be Food Buddy, because we are making an app that goes with our book, it's called Food Buddy, and the app is called Mercola Health Coach. It will have a far superior and much better interface and more comprehensive, so you'll be able to find out that ratio real quickly, and you do it by just taking a picture of your food.

Ashley Armstrong:

Yes. So, Dr. Mercola asked me and I think a few others, "What problems do you have with Cronometer?" And so, I sent him all my problems, and Food Buddy is going to fix that so I'm really excited about it.

Dr. Joseph Mercola:

Yeah, we're really excited, too. I'm wondering, as you mentioned the phosphorus issue, that the most common form of industrial fertilizer in the country is NPK, it's synthetic.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Nitrogen, phosphorus, and potassium. When industrial fertilizers are like that are used, does that increase the phosphorus content of the food?

Ashley Armstrong:

That's a good question. I'm not sure. However, I do know that this synthetic phosphorus, so inorganic phosphorus, I believe, the absorption rate is close to 100%, whereas phosphorus in natural food sources, like meat and grains, it's closer to 50%. So, we absorb so much more of this unnatural, man-made phosphorus that we really weren't exposed to 100 years ago, so that's a really good question. Now, I want to dive into that. We should ask Perplexity.

Dr. Joseph Mercola:

Yeah, Perplexity. That's for sure. A lot of people were a little annoyed with Perplexity because it wasn't answering correctly about COVID, but that was not the point at all. Of course, it's not. But the 99.99% of other things you want to ask it about, unless it's another censored area, it's going to tell you perfectly, and not only tell you that, but it does hallucinate. It does hallucinate like the other elements, it just hallucinates a lot less so it doesn't... And the hallucination is when it fabricates an answer, but it's doing it because it wants to serve you. It doesn't want to disappoint you, and it only does it when it doesn't know an answer. It's just not throwing it in there to mix you up. It just doesn't know so it makes one up. Typically that's what Perplexity-

Ashley Armstrong:

It'll get better.

Dr. Joseph Mercola:

Oh, it will, for sure. There's no question it will be resolved.

Ashley Armstrong:

So other health benefits of calcium intake, so when I was on carnivore and my calcium intake was really low, so I had a very unbalanced calcium-to-phosphorus intake, my phosphorus intake was really high because all meat, I would develop these white plaques on the back side of my front teeth, like down there, and since being mindful of my calcium-to-phosphorus intake, that has gone away completely. And so again, making sure that you're eating adequate calcium is going to be important for bone health and dental health, but there's so many other benefits. One of the main things is maintaining that proper cell structure, which can lead to improved energy production, improved metabolism, make it easier to lose weight. Also going to lead to better blood pressure regulation since low dietary calcium has been shown to increase blood pressure.

And a really cool part about calcium intake is that it's going to lower oxalate absorption. And oxalates are a big hot topic these days, but there is well-documented studies showing a linear plot where the more calcium you intake dietarily, the less oxalates you absorb through your intestines

so it helps reduce the chances of oxalate toxicity. Sorry, I meant linear, but it's a decline line. So, the more calcium you intake, if dietary calcium's on the X-axis, oxalate absorption is on the Y-axis, it's a downward line.

Dr. Joseph Mercola:

Yeah, it's really important. And oxalates are a significant factor for many people, but I believe they're only a factor because their microbiome, their gut flora, is impaired, it's disrupted, it's less than ideal, because if you have a healthy gut flora, there are bacteria in your gut that will digest these. One of them is oxalobacter formigenes, and there's others that do it, too. So if they are there, they can eat the oxalates, and oxalates are simply, the chemicals for it are dicarboxylic acid, which maybe gives you an idea that it has something to do with CO₂, and it does. It's just merely two carbon dioxide molecules, I think in an ester bond. I'm not sure of the bond, but it might be an ester bond. There's two of them together, and these bacteria digest it and their byproduct is carbon dioxide, which is pretty interesting.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

But I wanted to mention that the phosphate, what you said implies that it's dangerous, and it is in excess, and that's the key, because you need phosphate. I mean, that's part of ATP, adenosine triphosphate, three phosphates, so if you don't have phosphates, you're going to run into a problem. But the issue and the challenge is almost everyone's phosphorus is far too high relative to their calcium, and you can make the counterargument that their calcium is far too low relative to their intake of phosphorus, so it's primarily more the calcium. And Ray Peat, I believe, almost was at least 2:1, and maybe 3:1, calcium over phosphorus. Maybe you can comment on that.

Ashley Armstrong:

I think he was closer to 1.3:1.

Dr. Joseph Mercola:

1.3. I had it mixed up.

Ashley Armstrong:

The reason being is milk and cheese, so any dairy products, they are a great calcium source, but they also contain phosphorus, because like you said, it's an important mineral. But milk and dairy, it's a balanced calcium-to-phosphorus ratio, so there's more calcium than phosphorus, and so if that gets factored into your daily total intake, it leads to a rise in your calcium-to-phosphorus ratio. So, I think he was closer to the 1.3:1, but he was very hesitant of overconsumption of meats. That was something that he talked about because of this reason and because of the whole methionine and other potentially problematic amino acids.

And so it's funny, when you look in other animal literature, so like dogs, goats, the calcium-to-phosphorus ratio is discussed quite a bit, but it's never really discussed in human nutrition stuff

much. But it's something that they used to talk about back in the early 1900s, when Dr. Peat was being trained on these things, and then just lost touch of that. And honestly, I think it's because of the rise in big food and wanting to have intellectual property of all of our food that we consume. And so, they realized, hey, plant-based alternatives are so much more profitable than traditional dairy foods, they can make so much more money with these plant-based alternatives, and there's a study by McKinsey & Company that documents that, that plant-based alternatives is more profitable for these big food companies. So, there's just been a huge shift in what is discussed in human nutrition.

Dr. Joseph Mercola:

O h, absolutely. For sure. I've evolved my position on meat consumption. I still think it's a valuable and important part of health. I know a number of people disagree with that, but there are certain nutrients in meat that are very difficult to get. But the key point, and I want to emphasize what you're saying, is that you don't need a lot of meat. And I think Peat was right. I mean, you can get by with maybe optimally and be healthy with maybe two or three pounds a month. That's it. I mean, it's not a lot. Some people eat that in a day, but you can do that in a month and still be fine. And in fact, the converse is the high level of phosphorus and methionine are both highly problematic. They are anti-longevity. And there's a number of articles I reviewed that posit that this excess phosphorus is one of the most important aging nutrients that's out there, accelerating the aging process by having excessive phosphates.

Ashley Armstrong:

Yeah. Dr. Peat discussed extensively this study, I think it was by Kemi, K-E-M-I, et al from the early 2000s, like around 2008, and it showed that when you increase your dietary calcium intake, it definitely led to lower levels of PTH, parathyroid hormone, it improved bone regulation. However, not even a high calcium intake could make up for the problems that a very high phosphorus intake was causing. And so that's why I think it's important to just ensure that you're not going overboard with your phosphorus intake. And like you mentioned, it's so easy to get phosphorus. If you eat some meat every day, a little bit of meat every day, if you eat some amount of grains, I like sourdough bread, but other types of grains have some phosphorus in it, as well, you're probably going to be good. It's much easier to get the phosphorus intake. You have to go out of your way to make sure that you're consuming enough calcium, given the modern food environment that we face today.

Dr. Joseph Mercola:

And I think many people know you for your work with raising chickens.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

And I think this is a good place to tangent to another source of calcium, which is one I use every day, actually twice a day, I think I take a teaspoon of this twice a day, and that is-

Ashley Armstrong:

Eggshell.

Dr. Joseph Mercola:

Yes.

Ashley Armstrong:

Yeah, that's a good point. If someone is really not for dairy, like if you... Granted, when we dive into this cheese source, I am going to make the claim that significantly more people can digest this cheese better than the cheese you find at the grocery store. However, if you are one of those people where you just can't tolerate any amount of dairy at all, or you don't want to or you don't have a good source, eggshell powder is going to be a very cheap alternative, and also very dark, leafy greens like collard greens. You can also do bone meal powder or pearl powder. Those are all great calcium sources. But if you're buying eggs already, just save the shells and make your own eggshell calcium powder.

Dr. Joseph Mercola:

Well, and it definitely has calcium, it's calcium carbonate specifically, and it's a really good source of it. But what I like it for is what it also has, which is the trace minerals. It's probably one of the best trace mineral supplements you can get, and it's free. It's normally a waste product. So we are encouraging people to understand that it's not a waste product, that it's actually a food product that can provide a significant benefit to your health and your family's health and give you, essentially, a free source of calcium, especially if you're choosing to avoid dairy for whatever reason.

Ashley Armstrong:

Are you still using it to brush your teeth?

Dr. Joseph Mercola:

I do. I use it to brush my teeth. It's the ultimate... All you have to do is take the powder and mix it with an MCT oil. I use C8, we have a product called Ketone Energy, which is really good, and that combination is pretty magnificent. The MCT oil works pretty well for oral hygiene when you combine it with the eggshell. It's like sandpaper of sorts, so you're really cleaning your teeth quite well.

Ashley Armstrong:

Yeah. And it's well-documented to remineralize your teeth.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

I want to say it was in Japan, there was some really cool studies that came out showing the remineralization powers of eggshell powder. I think there are some commercial eggshell toothpaste brands out there, but guys, it's so easy to make yourself. Literally, save your eggshells

in a bag, put it in the freezer. When you have enough of it, you can either boil or lightly bake to sterilize or get rid of any impurities. And then I just grind them in a little coffee grinder, and then you've got your eggshell powder. And then I like to mix with coconut oil or MCT oil, like you said. And you can add a little peppermint extract, like a tiny, little bit if you want a little bit of... It's nice to have good-smelling breath, right? So, you can kind of add whatever you want there. But really, the base of it, eggshell powder and MCT oil, that MCT oil or coconut oil is literally antimicrobial in your mouth, and then you've got the remineralization power of the eggshell.

Dr. Joseph Mercola:

Yeah. The coconut probably more so because it has lauric acid, which is a 14-chain carbon fat. The MCT, not so much because it doesn't have that. But the benefit of MCT oil, it's a liquid at room temperature where frequently, especially in the winter, coconut oil is rock solid so you can't use it. That's a slight problem.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

I want to thank you for introducing me to that because it's a really useful thing, and I'm surprised that you, I would have thought with all those chickens, you would have had a lot more eggshells to not be using a coffee grinder. Because even in my, I have a lot less chickens than you, and we save them and we go through maybe at least a dozen eggs a day in my house.

Ashley Armstrong:

Well, I make sure our dogs get some, and I also like to give some back to the chickens, too. I don't use them all for myself.

Dr. Joseph Mercola:

But when we grind it, we use like a big Vitamix. Every week or two, we're pounding it down because I give it to my dogs, they give it to the chickens. I think it's crazy good if you have chickens.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Why not feed them back their eggshells? Because they need the calcium to make the eggshells so you have to recycle it. You don't have to, but it's wise to so it's a full circle. And we are likely going to be offering this as a product in the future for those who, for whatever reason, just don't want to do it and just want someone to do it for them, and it'll be good.

Now, one of the cautions that you didn't share is that if you're getting eggs, especially from Ashley, or you're raising them yourself, then you've got to wash the shell before you crack it

open because it's going to be dirty. So maybe you can guide us through that, and why do we want to wash the shell before we eat and not until we eat?

Ashley Armstrong:

So, if you buy eggs at the grocery store, they've most likely been washed, and it washes off the chicken's natural bloom. So, Mother Nature is amazing, right? When a chicken lays an egg, right when it's coming out of the chicken's butthole, there is this wet-looking coating. So, when a chicken initially lays the egg, it looks wet, and then it almost immediately dries, and that's called the natural bloom. And so, it is a membrane barrier around the egg that prevents microbes and stuff from coming inside the shell. And so, it's important to remember that eggshell, it's not a solid surface. We can't see it visually, but there are a ton of little pores. And so that natural bloom around the egg protects other things from coming inside the shell.

So that's why it's really important, if you buy unwashed eggs or if you raise eggs for yourself, don't wash those until it's time for you to eat the egg, because that bloom, if you wash it, it removes the bloom, and so then the eggs will go bad quicker because things will be able to come inside the egg at a faster rate. So, keep that natural bloom on there and it'll just lengthen the shelf life. Unwashed eggs, every other country uses unwashed eggs. You can keep unwashed eggs on a countertop for several months. If you put it in the fridge, lasts a very long time. If you're going to save your shells or whenever you're cooking your eggs, don't wash your eggs until you're about to eat them. I don't even wash my shells, but if you're going to wash them, wait until right before you eat.

Dr. Joseph Mercola:

Yeah. Well, we should recommend, because ideally you want to use the eggshell itself.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

But if you do wash them and you're not eating them, then you have to put them in the fridge, otherwise they're going to be potentially contaminated, so you have to be careful there.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

It occurred to me, I've been to other countries before where they don't, well, at least I suspected they didn't because the eggs that were being sold were not in the refrigerator. But I wonder, they seemed all clean, I don't remember having seen dirty ones, is it possible that they wash them and don't put them in the fridge?

Ashley Armstrong:

Yeah. I don't think the shelf life would be that long, there would have to be a relatively quick turnover, but yeah. Also, if someone keeps their nest boxes really clean, which can be difficult out on pasture, then you can make really clean shells, for sure.

Dr. Joseph Mercola:

Yeah. Okay. So that's a good, important point to know that many people may not be aware of, but it's useful. So now, when I introduced you initially, I talked about problems that I had with synthetic rennet and that it recommended that anyone who is eating cheese that doesn't use animal rennet should seriously consider stopping that practice. So why don't you tell the backstory of that and help them understand why?

Ashley Armstrong:

Yeah. So, cheese is made from milk, but you have to wonder what coagulates the milk, right, like what separates the different components of the milk? How do they make cheese? And that requires something called rennet. And so it is an enzyme that naturally occurs inside the stomach chamber of ruminant animals. And that's what our ancestors did for thousands of years. They retained small amounts of that liquid, and they were able to add that liquid to the milk, and that would coagulate the milk so that they could make cheese.

So, our good friends, Pfizer, realized how widespread cheese consumption was and decided they wanted to take this problem into their own hands, and realized this is a very profitable venture. So, in the early 1990s, Pfizer generated something called FPC. Honestly, I don't even remember what that stands for, fermentation something. Do you remember what it stands for?

Dr. Joseph Mercola:

I don't. We wrote about it in the book, but I did not recall what the name is.

Ashley Armstrong:

Something chymosin, which is like the enzyme. So essentially, it is produced in a lab from a genetically modified enzyme, and so it's actually not really natural. So basically, they will take a gene out of an animal cell's DNA string, and then they'll insert it into a bacteria, commonly like a yeast or a mold. They'll take that DNA, put it into the yeast or mold DNA string, and then that will initiate the production of the chymosin enzyme. And that chymosin enzyme is what regulates the milk, and that is what's naturally occurring inside the stomach chamber of a cow. And so then the host culture is then cultivated and fermented.

And so the biggest problem here is that this is made in a lab, and so trace amounts of these mold and fungus have been found in these enzymes, which are then used to make the cheese. And so people who are allergic to mold or fungus, it can cause toxicity or allergenic responses. I personally don't digest cheese well when it's made with this FPC. I notice a very big difference in my digestion between animal rennet and this FPC. It's also been shown to disrupt gut health, likely because you're inserting strange microbial populations into your gut so there is toxicity, allergenic, and gut health concerns of this FPC. And the best part about it is the safety of this FPC was evaluated in a 90-day trial with rats.

Dr. Joseph Mercola:

It reminds you of COVID a little bit.

Ashley Armstrong:

Yes. And it was the-

Dr. Joseph Mercola:

Same company.

Ashley Armstrong:

Same company. It was granted what's called GRAS, generally recognized as safe. Guys, that means nothing. Literally, that means nothing. Joel Salatin had a great episode covering what GRAS means, and it essentially puts all the responsibility on the producer for evaluating the effectiveness. And so, we really don't know the long-term repercussions of consuming this lab-made rennet. And another thing that some cheese producers realize is you can't replicate Mother Nature in a lab. And so FPC creates chymosin, which is just one type, whereas when you use animal rennet, it's a combination of different enzymes.

Again, us thinking that we can try to produce something better than Mother Nature. It's funny. We can't, right? And so basically, over 90% of the cheese that's consumed in the US today is made using this FPC made by Pfizer, and I think that it is causing a lot of people to not digest cheese well. And another big reason they did this is because using this FPC, or other common terms would be like microbial rennet or vegetable rennet, it allows them to appease vegetarians because then they're not using animal products in the cheese itself, and I understand that.

Dr. Joseph Mercola:

Even though the cheese is an animal product.

Ashley Armstrong:

Exactly. Exactly. So, it was very interesting to learn about that. And again, thanks to Dr. Peat, I had no idea, but he pointed out you should only buy cheese from animal rennet. He said that a number of times in his writings and his emails, and I was like, "What does he mean?" So, diving in, so I knew that when we started making cheese for our food co-op, I was like, "We have to use animal rennet. It's the only option," and sent Dr. Mercola some, and you seemed to digest it well compared to other cheeses. I think that there's a number of reasons for that, but one of which is I think it is very important to pay attention to the rennet used when you buy and consume cheese.

Dr. Joseph Mercola:

So, you mentioned that there was 90% of the cheese. I thought it was higher, maybe closer to 95 or even 99%.

Ashley Armstrong:

The one study that I looked at, I think it was in the mid-2015 era, so at that time it was over 90%. I am not sure what it is now, but I can only imagine it's over 95%.

Dr. Joseph Mercola:

Yeah. So, you're not the only cheese company in the US that makes this.

Ashley Armstrong:

No.

Dr. Joseph Mercola:

And many cheese companies in Europe certainly use the animal rennet because it's more done with high-end, artisanal cheeses, because they know you can't get the high quality you can with use of synthetic rennet.

Ashley Armstrong:

Yeah. Yep, yep. And it just leads to better taste, and it's just the traditional way of making cheese.

Dr. Joseph Mercola:

So, for myself, when I would eat regular cheese in any type of significant amounts, not just a half a teaspoon or something, my creatinine ideally should be about 1 to 1.2. And I didn't realize until recently that a creatinine of 1.2 is actually normal if you have a lot of muscle mass, because that's metabolic byproduct of muscle. If you don't have a lot of muscle mass, then it would be lower. So, it would typically go to 1.4, 1.6, even 1.8 at one time. And that's concerning because it doesn't seem like a big change, but when you get closer to 2, you're looking at potentially, certainly above 2, you'd have to be a candidate for dialysis, and who wants... Dialysis is not fun.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Before I went to medical school, I was involved with the harvesting kidneys for transplant. I headed up the University of Illinois' Kidney Transplant Preservation Lab and I've had a lot of experience with that, and it's definitely not something you want to engage in if you don't. So I've had a great passion to avoid that if at all possible, and that's why I was so delighted when you gave me that cheese. I loved it so much, I think I was eating a pound or more a day. I actually overdosed on my protein, which had some problems because that extra protein will damage the kidneys, too, so you want to have the sweet spot. But now my most recent one was 1.2, which is perfectly normal, perfectly normal for me, so I'm so... I mean, that's one of the biggest joys of my life is be able to eat cheese again.

Ashley Armstrong:

Guys, he loves cheese. Dr. Mercola loves cheese.

Dr. Joseph Mercola:

I do.

Ashley Armstrong:

What's your favorite flavor?

Dr. Joseph Mercola:

I like the mozzarella and jalapeño cheddar, which is pretty similar to mozzarella. And I think you just sent me four pounds this morning.

Ashley Armstrong:

Yep. I think it's important to realize potentially your kidney was having trouble filtering out maybe something that was present in the FPC.

Dr. Joseph Mercola:

Yeah. In my case, and I suspect many others who have compromised renal or kidney function, that would be an issue. So not everyone is going to be able to order from you, because if it's like your eggs, they'll be-

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

The reason we're talking about this is because you're providing this to our-

Ashley Armstrong:

Yeah. Exclusive Mercola-

Dr. Joseph Mercola:

Exclusive. No one else can get this.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yes. We've been waiting to do this for a long time, and I think, we'll go into this in more details, but... Well, finish this and then we'll talk about the eggs, okay?

Ashley Armstrong:

Okay.

Dr. Joseph Mercola:

That's the next we'll talk about.

Ashley Armstrong:

So, the really exciting thing about this cheese is I really believe it is the highest quality cheese you can find. So, of course, it's made with animal rennet, right?

Dr. Joseph Mercola:

Of course.

Ashley Armstrong:

The milk is raw milk. Raw milk is turned into cheese, not heated, so it is raw cheese, and so it still contains the beneficial enzymes, and also it serves as a probiotic. Well-documented in literature that the consumption of raw cheese will improve microbiome balance because you're consuming very beneficial bacteria which get killed when you're consuming pasteurized cheese, right? The cows are 100% grass-fed. They're rotationally grazed out on very diverse pastures. Dr. van Vliet has data showing that cows consuming diverse grass species, that leads to higher levels of phytonutrients in the dairy. And so phytonutrients are commonly what you think is found in fruit and vegetables, it gives it that color, right? Well, phytonutrients can turn up in meat and milk when cows are out on very diverse pastures, through rotational grazing, regenerative agriculture. Vaccine-free, needle-free. It's made by small, Amish cheesemakers.

And so the really exciting thing here, we put together a partnership, different Amish farmers, because we are not trying to do industrial cheese operation. That's not the goal. Let's make sure that we preserve this artisan, handmade, traditional techniques, local cheese, now just providing a central market for this group of Amish cheesemakers producing the highest quality cheese. And all of the cow's milk is tested to be A2/A2. And so that's another important thing, that some people have problems with A1 casein, but this is tested to be A2/A2, which not all cow milk is A2/A2. A lot of the popular Holstein cows are A1, and some people have problems digesting that A1 casein protein, whereas all dairy from traditional cow breeds was always A2/A2. So that is the main list of benefits, and I am so excited to be able offer you guys-

Dr. Joseph Mercola:

Oh, no, no, no, no. You left out a really, really important one. Do you remember?

Ashley Armstrong:

It's delicious.

Dr. Joseph Mercola:

Well, yeah, it is delicious. It's like one of my fave... There's not many people I know that don't like cheese, I mean, unless they have an allergy to it.

Ashley Armstrong:

There's this really fun meme where it says, "You can fascinate a woman by giving her a piece of cheese," or something like that. I'm like, "I feel that so much." I love cheese so much. But we didn't even talk about, so cheese is a great source of calcium. It has a calcium-to-phosphorus ratio greater than 1. It also contains lactoferrin, which is helpful in reducing iron overload and

improving immunity. It also contains vitamin K2 and, super exciting, dairy fat. So, cheese is a fat source. Dairy fat is very high in C15, which is an odd-chain fatty acid. Dr. Mercola, would you like to talk about-

Dr. Joseph Mercola:

I knew you would get it. That's what I was referring to, yes.

Ashley Armstrong:

Okay. Would you enlighten us on what C15:0 is, odd-chain fatty acid?

Dr. Joseph Mercola:

Odd-chain saturated fatty acid.

Ashley Armstrong:

There you you.

Dr. Joseph Mercola:

Which is the key, it's saturated, unlike the others. And it has some special benefits, and so much so... And you cannot manufacture this ostensibly just like omega-6 and omega fat. So, this is an essential fatty acid. It's the first essential nutrient that's been discovered in the last 75 years. The scientific name is pentadecanoic acid, C15 for short. And we are actually, I'm working with Ashley to try to bring this product to market through a very inexpensively, because it is kind of pricey. It's available in dairy products, and the cost of the supplements I've seen on the market, it costs as much for the supplement as it does for a glass of milk. So, clearly it's better and more efficient to just drink the milk because you're going to get a lot more nutrients than just C15, and it's in its natural form.

Ashley Armstrong:

Yeah. Yep.

Dr. Joseph Mercola:

But there are some sources that we're investigating to acquire this and bring it to you, but it has great value. But in the meantime, you could just get it from food. You have to eat enough food, and most people are terribly deficient. You need about 100 milligrams a day, which is interestingly about the amount that's in a cup of milk, or I don't know how much-

Ashley Armstrong:

Yeah. Which is then in the serving of cheese.

Dr. Joseph Mercola:

How much of a serving?

Ashley Armstrong:

I think just one serving of cheese will get you-

Dr. Joseph Mercola:

What's a serving of cheese? What's in there? 2 ounces, 4 ounces?

Ashley Armstrong:

Typically, 1 ounce.

Dr. Joseph Mercola:

1 ounce? Wow.

Ashley Armstrong:

Wow. 1 to 2 ounces. Yeah.

Dr. Joseph Mercola:

Okay. Okay, good.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Well, I think I'm at 8 ounces a day. I've kind of moderated it, so I must be getting a lot of C15.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Now, here's the other thing that's really, really important, because as Ashley and I were investigating bringing this to market, we were seeking to identify the highest sources of plants, because the animals don't make the C15 either. The reason the herbivores like the cows have it and ruminant animals is because they're eating grass. That's where the nature, the plants make the C15, and you get it from the plants. And it just turns out, why don't you share this? Because you're the one who found it by searching in LLM about the interesting serendipity I used to refer to, but now I refer to as the precision of the universe, that has you in the middle of the highest concentration of C15 grasses maybe in the world.

Ashley Armstrong:

Okay, just fine-tune that, make it really clear. Cows and ruminant animals that are on a grain-based diet in like a confinement operation, they won't have as much C15 in their dairy fat. So that's another reason why this cheese is awesome. These cows are outside eating diverse grasses, and in the areas where these cows are is a very high concentration of the grasses that lead to the highest production of C15:0, and that is orchard grass and, Dr. Mercola, I'm failing you. I forgot the second one. Orchard grass and-

Dr. Joseph Mercola:

Ryegrass or tall ryegrass.

Ashley Armstrong:

Fescue?

Dr. Joseph Mercola:

Tall fescue. Tall fescue.

Ashley Armstrong:

Tall fescue, there we go. And so, we have a high concentration of those, and so that is very exciting. And so basically, I think the most important thing is ensuring that your dairy, if you want to get the most out of this C15, ensuring that wherever you're sourcing your dairy, those cows are out on grass, and not just like a golf course grass, right? There's a huge difference between grass-fed and rotationally grazed or rotated out on diverse pastures, right?

Dr. Joseph Mercola:

World of difference.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah. And ideally, your dairy source should show this, but this is so new, I mean, this information is literally within the last few years, that there is no commercial interest or effort to identify this and do this analysis to show how much C15 is in there. That would be nice and then you can choose it, but no one's doing this.

Ashley Armstrong:

Yeah. Ooh, that's a good idea.

Dr. Joseph Mercola:

Yeah. We probably should do that, and sort of catalyze the industry to wake up and-

Ashley Armstrong:

And unfortunately, we talked about this on another podcast, mainstream dairy is demonizing saturated fat, and so they are trying to manipulate the fatty acid profile of cows by changing what they're eating by introducing what they're calling, oh gosh, some sort of oils that bypass digestion. What is the name of it?

Dr. Joseph Mercola:

Rumen-sparing, I think it was, wasn't it?

Ashley Armstrong:

So essentially, people believe, and it's well-known, that you can't consuming most types of grains that cows consume, they can't really change the fatty acid profile too much. Obviously, this new data about odd-chain fatty acid C15:0, that doesn't show up in grain-fed animals. However, the total percentage of saturated fat, PUFA, and MUFA, it's relatively stable due to this process called biohydrogenation, where the ruminants are able to convert PUFAs into saturated fat, typically.

However, now they're developing these new feeds where these dietary fats bypass rumen digestion and they just go straight into the milk, and so they're able to increase the PUFA concentration and decrease the saturated fat. And when you read through the literature, it's so funny, the researchers just say, "Due to the well-known belief that polyunsaturated fats are good for us and saturated fats are bad for us, we are seeking to improve the fatty acid profile of dairy." And it's like, let's just go back to what Mother Nature designed and planned for us and have ruminants out on grass.

Dr. Joseph Mercola:

Yeah. Yeah. It almost seems like it's a conspiracy to destroy human biology to do something so antithetical to human biology.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So yeah, there's many benefits to this. And if you like cheese and you want this on... What do you think of the supply? Really, I know I have so many projects that we're working on, I just didn't go into the details, will this be sold out in like a day? This is a short-term issue. We were working on it in the long-term, and I wanted to extend that discussion to the chickens in a moment, but let's finish up with this first.

Ashley Armstrong:

Yeah. I want to say we are able to offer about close to 1,000 to 1,500 boxes per month.

Dr. Joseph Mercola:

Okay.

Ashley Armstrong:

But as we grow, it's not going to be like, "Let's push these farms and make them become industrial complexes."

Dr. Joseph Mercola:

That's not going to happen.

Ashley Armstrong:

No, no, no.

Dr. Joseph Mercola:

No.

Ashley Armstrong:

It's a collection of small scale, and so it's going to involve more coordination, but we've got to keep that traditional, artisan, small batch feel, or else the quality will be sacrificed, right? And so that's the goal, is we're going to build up by increasing total-

Dr. Joseph Mercola:

Producers.

Ashley Armstrong:

There you go. Yep.

Dr. Joseph Mercola:

The producers.

Ashley Armstrong:

Yes.

Dr. Joseph Mercola:

Yeah, no CAFO operation.

Ashley Armstrong:

No.

Dr. Joseph Mercola:

So that's a challenge, and that's where you're so expert, probably maybe one of the best in the world.

Ashley Armstrong:

Well, okay, let's dive into that real quick. The reason being, Dr. Mercola, is because I want to pay farmers good.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

If you look at the statistics, you will see that right now, many conventional CAFO dairy farms, they're losing money. They are literally having to get off-the-farm jobs to support their dairy farming. It's not profitable given how little they're paid in the conventional market.

Dr. Joseph Mercola:

They have to work for free to do what they love.

Ashley Armstrong:

So, I want to ask you on this-

Dr. Joseph Mercola:

Which is your circumstance, too, pretty much.

Ashley Armstrong:

Yes. Yes.

Dr. Joseph Mercola:

And thanks to everyone who contributed to your campaign.

Ashley Armstrong:

Yes, thank you guys very much.

Dr. Joseph Mercola:

From the Michigan Department of Agriculture that just destroyed \$100,000 worth of your product, some of the healthiest foods on the planet. It was criminal, absolutely criminal.

Ashley Armstrong:

Your guys' donations single-handedly kept us in business. I'm not lying.

Dr. Joseph Mercola:

Yeah. If you didn't have our support, they would have taken you out, which is unacceptable.

Ashley Armstrong:

And that's probably by design. Yeah.

Dr. Joseph Mercola:

Yeah, of course. They do not want any threat to their business model at all, zero.

Ashley Armstrong:

Yep. And so, one of our main principles is paying farm partners above market price so that they can actually make a living. And so, by you supporting and buying this cheese, you are actually paying a fair wage, and that, in my opinion, is one of the most important things that we all need to do moving forward so that we can secure small-scale farming. If you want high-quality food,

we've got to bring back traditional farming practices, and the only way to do that is support them and make sure that they're paid enough. The conventional system is not working for farmers, and that's probably by design because it's going to create more and more opportunity for there to just be lab-made food, right? Oh, we don't need farmers anymore. Let's just push them out, because then we can have intellectual property and make everything in the lab, but we can't replicate Mother Nature.

And so that's a big principle of mine is I don't want farmers to work for \$-5 an hour. That's not what we're here for. That's a huge problem of why America is today and why we're so reliant on fast food. There's a reason fast food and convenient food is so cheap, and it's at the cost of farmers' livelihoods and our land and our human health. And so that's a big priority for me, is I want to make sure that farmers are paid well, and the amount of... That's one of my passions and one of the things that satisfies me the most, is providing an opportunity for a farmer to have a market where they can be a farmer. They don't have to have three off-the-farm jobs to support their farm hobby. And so if we realize this, if a farmer doesn't have to work off the farm, they can spend more time being a good land steward, taking care of their animals better, be a better farmer.

Dr. Joseph Mercola:

Yeah. Yes, indeed. And one of the other projects we are working on together, aside from this, is creating a substitute for vegetable oil or seed oils. There isn't any really good substitute, other than natural oils like ghee, coconut oil, beef tallow. Those are really the only three that are acceptable. Lard used to be, but because it's really difficult to find pigs and chickens that are raised on very low PUFA diets, they're not healthy fats. They have typically about 20% or more of PUFAs, which is unacceptable.

Ashley Armstrong:

Yeah. The highest linoleic acid intake is due to conventional chicken.

Dr. Joseph Mercola:

Yeah. That's a sad commentary, right?

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

For sure. Which is why your eggs are, I think the last analysis was, what, 75, 80% lower than a commercial egg of PUFA?

Ashley Armstrong:

It's basically you can consume four of our eggs and have less linoleic acid than one conventional egg.

Dr. Joseph Mercola:

Yeah. Now, if you're only eating one egg a day, it's not a big issue, but if you're having more than a few, you're really going to want to seek to get Ashley's eggs. And you'll say, "What the heck? I've been on her waiting list for years, and I can't get them." So why don't you give us an update on that?

Ashley Armstrong:

Yeah. Very exciting, very soon, so early September, we are almost tripling in total number of chickens.

Dr. Joseph Mercola:

That's crazy.

Ashley Armstrong:

It's been really fun working... Farmers are wanting to be a part of this, right? They're excited about it, and I'm visiting all these different farm partners, making sure everyone's getting in place. It's so exciting. There's so many things going on, but it's so fun. This is what I was meant to do. So very soon, we are going to have, it's our goal to make sure that everyone is able to get access to low linoleic acid, low PUFA eggs, because everyone needs the nutrients and egg yolks. They're just so nutrient-packed. An egg yolk has enough nutrients to produce a chicken. A chicken comes out of that. That's so cool.

So, there's a number of health benefits of regularly consuming eggs, but unfortunately we've lost touch of what the fatty acid profile of eggs used to be back in the day. I have read extensively USDA for agriculture articles from the 1800s, early 1900s, I love reading that stuff, it's so fun, and the fatty acid composition of eggs back then were so different relative to what conventional eggs are today, because corn and soy wasn't, mainly soy, wasn't this huge agriculture commodity crop that the government subsidizes for us to make it so cheap and abundant. And so, we've completely changed what chickens eat, and as a result, we've changed what humans eat, and as a result of that, we've changed how our body functions, and it's clearly not working.

Dr. Joseph Mercola:

No, no. So let me continue where I left off on seeking to put a dent in the vegetable oil market by substituting one of those oils and actually introducing typically solid fat at room temperature, which is stearic acid, into a very low PUFA, almost a completely pure saturated liquid fat, like coconut oil or MCT oil. What's required to do this is an emulsifier, and there are a number of different emulsifiers. Unfortunately, the emulsifiers have the PUFAs in them, too. Typically lecithin that is usually obtained from soy, although safflower lecithin has less PUFA than soy, but even less than that are egg yolks, there is something that doesn't really exist that we're in the process of creating, which is egg yolk lecithin, and that has very low linoleic acid.

Ashley Armstrong:

Well, the most exciting thing for me is we're bridging the gap between livestock agriculture and row crop agriculture, and that's how it used to be done, right? So now we have row crop farm partners. So, we not only have livestock farm partners, we have row crop farm partners that are

producing the feed ingredients for us, rather than selling to the conventional market. How cool is that? Now we can shift people who are selling corn and soy to the conventional system, we can shift them over to selling to us, but they've got to follow regenerative agriculture practices, so no chemicals, no tillage.

And so, in this process, we can regenerate landscapes across the country by incorporating more row crop farm partners that are willing to shift what type of crops they grow, and also potentially shift their farming practices and not have to continuously degrade their soil with tillage, heavy chemical use. For many producers, the organic solution for weeds is tillage, whereas if we did more cover crops and keeping the soil covered all year and ensuring that we have a rich soil microbiome, we won't experience as much weed pressure. So it's just so fun because all of this combines my love of metabolism, food production, soil health, it's all connected. It really is.

Dr. Joseph Mercola:

And people hearing you talk would have no idea that your professional training is in engineering.

Ashley Armstrong:

Yes. Yes.

Dr. Joseph Mercola:

So far from what you're doing now, but it's the same mindset. You're very analytical and you have a passion. You've applied the skills that you've acquired to solve problems in this area, and you've been very effective. So major kudos to what you're doing and continue to do and will do.

Ashley Armstrong:

Well, thank you for the opportunity to be able to talk about my passions. Without people like you who care, it would be hard to spread this passion and this message far and wide, and so it's refreshing when platforms are actually interested in soil health, right? That's a hard thing to pass to people, but soil health equals human gut microbiome health. It's one and the same, so it's important that we take care of both.

Dr. Joseph Mercola:

Yes. And I'm grateful that you're providing the resource because it's hard to do this, and you're working feverishly to expand your production and provide this food to a greater number of people, and the earlier you sign up for the waiting list, the sooner you'll be able to get it once the problem's solved.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

I would assume that there is some type of time stamp on when they first applied, and that the people who applied first are the ones that get the chicken eggs when they're available.

Ashley Armstrong:

So just if you sign up for the wait list, I send out a weekly email giving updates and things like that. And like I said, hopefully within the next year everyone will be able to get their hands on it. And I'm really looking forward to when you guys have your health clinics across the country, because then we can just get better distribution, trucks set up, and then-

Dr. Joseph Mercola:

Yeah, but eventually we'll have them in grocery stores, too. It's not there yet, but it's coming down the road.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah, for sure. That's great. It's really great. And I am proud to say that I do not get Ashley's eggs anymore because my chickens are finally producing.

Ashley Armstrong:

Well, we've got to make sure that Grace and Joy protect your chickens so the same thing doesn't happen.

Dr. Joseph Mercola:

Yeah, and we've got to make sure, I solved this problem, but we thought we had a predator. I acquired Joy primarily to protect my chickens and then my egg production, and then I realized that Joy turned out to be an egg predator because he's eating all the eggs. He was eating most of my pro... I said, "How come we're only getting one egg a day now?" Joy was eating all the eggs, so we had to rig up a cage and a little chicken gate that Joy cannot fit through because he's moving on 80 pounds now, and he can't get through this hole that the chickens get through.

Ashley Armstrong:

Joy is an athlete. Joy is a well-functioning dog that sprints, and lots of energy.

Dr. Joseph Mercola:

Yeah. I walk on the beach with him every day, and now I'm walking with him without a leash on the beach, which is technically illegal, but he's well-controlled and he listens to my commands, so it works pretty well. It's so good to walk with him on the beach. And then we run back, on a leash, of course, it's on a street, but I've trained him to sprint. He does multiple sprints, like 100 yards or so, and he is just... And he gallops as fast as I can ride my bike, which is about 20 miles an hour, which is so amazing. It feels so good to see him galloping next to me.

Ashley Armstrong:

Hopefully Grace can fit in there.

Dr. Joseph Mercola:

Yeah. Well, she's not able to do that yet, but she'll get there.

Ashley Armstrong:

Yeah. Yeah.

Dr. Joseph Mercola:

All right. Anything else you'd like to share before we leave?

Ashley Armstrong:

If you guys are interested in cheese, it is now available. Exclusive Mercola audience cheese boxes, check that out. We'll be working on increasing supply of that over time. But again, we're not going to push that because no one wants, we're not doing confinement operations here, so yeah.

Dr. Joseph Mercola:

Yeah, that's a lot of boxes of cheese. And I am suspicious that they pretty much won't be available after day one, they'll be gone.

Ashley Armstrong:

We'll see. We'll see. We'll see.

Dr. Joseph Mercola:

I could be wrong, but I suspect that. I mean, you're not the only one selling this, but it may be one of the highest quality cheeses you can get, because remember, this is Amish, essentially it's better than organic. It's regeneratively-grown Amish farmers from some of the best grass in the United States. It's highest in short-chain fatty acids that are essential fat, and it's really hard to get.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

And I did not realize this, we have to analyze this cheese for C15. We just have to.

Ashley Armstrong:

For sure.

Dr. Joseph Mercola:

I will see if we can get that analysis going soon, okay?

Ashley Armstrong:

Yep.

Dr. Joseph Mercola:

Because it's going to be through the roof.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

A supplement would probably be more expensive than cheese, that's my speculation.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So we'll see. We'll find out.

Ashley Armstrong:

So not everyone is going to be able to get this cheese, and so if you aren't, just start to be mindful of your calcium-to-phosphorus intake. So, start with Cronometer, soon-to-be Food Buddy, when Dr. Mercola's is ready to go. I think that paying attention to little variables like that can go a really long way when it comes to metabolic health, and then ultimately that means your longevity and your health 5, 10, 15 years from now. So, it may not be something that you almost notice immediately, but it's one of those things that compounds and improves your health time after time after time. So, start paying attention to little variables like your calcium-to-phosphorus ratio to optimize your metabolic health.

Dr. Joseph Mercola:

Very wise words of wisdom, so thank you for that encouragement. And getting access to Ashley's food is a big step in the right direction, and then, of course, knowing the material of how to use that food and the reasons why you want to follow that is going to be in my new book coming out really soon, hopefully-

Ashley Armstrong:

September?

Dr. Joseph Mercola:

Well, yeah, we had to vector some strategies, and I actually have to create, I'm in the process of creating two-minute new books that go out with it, so we'll probably be launching three, or maybe even four, books at the same time, a general reader's guide, a professional reference guide, and a workbook with daily lessons, and the daily lessons book will be maybe 600 pages. That's a lot.

Ashley Armstrong:

Wow.

Dr. Joseph Mercola:

And I have to write that in the next week or two, so it's going to be-

Ashley Armstrong:

Wow.

Dr. Joseph Mercola:

It'll be fun. I'm going to enjoy doing that.

Ashley Armstrong:

Exciting.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

Very exciting.

Dr. Joseph Mercola:

All right. So, this is great fun and I'm so glad we're able to collaborate together and produce good things in this world, and we're going to do a lot of amazing things in the future in helping people identify and be able to secure some really, really healthy food.

Ashley Armstrong:

Taking down the industrial food system.

Dr. Joseph Mercola:

Yes.

Ashley Armstrong:

One day at a time.

Dr. Joseph Mercola:

Okay. All right. Well, thanks, Ashley. Keep up the great work, and we'll connect soon.

Ashley Armstrong:

Thanks for having me on, Dr. Mercola.