

The Role of Farming Practices and Animal Nutrition in Producing the Healthiest Foods

A Special Interview With Ashley Armstrong

By Dr. Joseph Mercola

Dr. Joseph Mercola:

Welcome, everyone. Dr. Mercola, helping you take control of your health. And today we have a real treat for you. We're going to talk to Ashley Armstrong, who's an expert in not one but two areas. One is producing some of the healthiest food in the United States, and the second is understanding how your body uses it and how to select the right types of food to optimize your biology, and that of course is her implementation of the Ray Peat principle. So, I think we're going to start there because it intimately integrates into her passion for producing food, not vegetable food, but animal food. So, welcome and thank you for joining us, Ashley.

Ashley Armstrong:

Thank you, Dr. Mercola, so much for having me on today. These are probably my two favorite topics and I am just so excited to talk about why they're intimately connected.

Dr. Joseph Mercola:

Okay, yeah, it's going to be great. So, as I said, I think we should start with your implementation of Ray Peat's principles because as I understand – I've listened to a number of your interviews and actually have connected with you a year or two ago, and you were kind enough to share your recipe for my chickens, which I've been sharing with many other people, but we're going to go into that later. So, I know that you have previous experience with low-carb diets and keto and maybe even carnivore [diet], I don't recall. But you failed with those. I mean, it helped somewhat, but then ultimately you had health problems.

So, why don't you quickly guide us through that process and what catalyzed your path towards adopting the principles from Ray Peat that he developed, who – I don't know if we connected, but I [have] since learned that he was the top health educator in the U.S. in the 20th century. He was No. 1. So, you found him long before – Actually, I found him 30 years ago, but I chose to reject him because of his speech impediments, and I didn't think he was accurate, but turned out he was a genius. So, why don't you share with us your journey?

Ashley Armstrong:

Yeah so, kind of like a brief timeline, growing up I was super active as an athlete and was kind of in that position of always undercreating for what the energy requirements [are] for my body. And I was really brainwashed by the American food pyramid at that time. You know, whole grains only, animal food products are bad, vegetables and vegetable oils are good. And so, that was kind of my adolescent years, which is really unfortunate because that's a very important time in your life. And as a result, I kind of had symptoms show up in my early 20s, and at the time I

really thought it was a severe autoimmune condition, but it turns out, I think I was just super hypothyroid. And that kind of catalyzed – Having those symptoms so early on in my life, I just was like, “I need to take control of my health.” And that led me down to the fasting and then keto, and then that inevitably becomes carnivore [diet] because at a certain point you're not going low enough in carbs.

And so, that definitely improved – it led to improved symptoms, but learning what I know now, I think that that was kind of more symptom suppression. And after two years of being pretty low-carb, finding Dr. Ray Peat, he honestly saved my life and I owe so much to that man. I'm forever grateful for him. And the biggest wake up for me, Dr. Mercola, was measuring my body temperature. So, I was on carnivore and I measured my body temperature and I was 96.5 degrees Fahrenheit.

Dr. Joseph Mercola:

Classic.

Ashley Armstrong:

What?

Dr. Joseph Mercola:

Classic.

Ashley Armstrong:

That was a huge wake up. I was like, “Wow, no wonder my hair is thinning. No wonder my complexion is so pale. No wonder I'm not sleeping through the night.” And there was just a number of red flags. That body temperature measurement just woke me up. It's what I needed to be like, “I'm not thriving, I'm just surviving.” So that's kind of a summary of where I've been. And now implementing Dr. Peat's principles for over three years now, I just have more energy in life than I think I've ever had, even as a teenager. And it's just amazing to see how being not restricted with your food, just being strategic with macros, types of food, how powerful that can be for your energy production. And yeah, that's where I am today.

Dr. Joseph Mercola:

Well, great. I just want to insert here, and probably you are not aware of this, most people aren't. I certainly wasn't until recently, but you have radically improved your energy production. That is a powerful, powerful point, much more so than almost anyone realizes. Because when you have that increased energy, that will absolutely, unequivocally raise your consciousness level. No question about it. Indisputable. Indisputable. So, that's why this is so important. It's not just important to treat [and] prevent disease, but it's also vital for improving consciousness level, which may be even more important.

Ashley Armstrong:

Yeah. What I do day-to-day, I would not have been able to do when I was low-carb. I would not have been able to do prior. Yeah. So, I totally agree.

Dr. Joseph Mercola:

Yeah. And just briefly summarizing, and you could add on this, and then I want to get the connection on how the timeline with respect to that implementation and the development of your food processes, because part of it was LA (linoleic acid) and I don't know the timing of that, but I want to summarize some of the basic principles because we know low-carb isn't good, high-fat, because it shuts down your energy production, ultimately impairing thyroid function, which is really, really crucial for energy production. If your thyroid doesn't work, you're down the creek without a paddle.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

And one of the reasons it does this is it increases the stress hormones, cortisol, glucagon and adrenaline. But there are other reasons too. One of the other big ones is high LA, which is a big focus of what we're going to talk about, linoleic acid, omega-6 fats, and that is every bit as pernicious as low-carb, maybe in some ways worse. That's why the low-carb tends to help because typically if implemented properly, especially in carnivore, it's going to lower LA ingestion radically.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Radically.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So, that's kind of a summary, of an overview, but give us your understanding of that and walk us through it because you're fairly knowledgeable as an advocate of Ray Peat's work. So, you understand this at a higher level than most.

Ashley Armstrong:

I think the best way to understand it is the body is a system and it has a certain amount of energy and it has a number of processes that it can turn on or turn off with that energy source. The more energy you have in that pool, the more functions the body can turn on. But the lower amount of energy you have in that pool, your body has to be selective with what functions it turns on and what functions it downregulates. And our biology is designed to promote survival, so it's going to keep your heart rate going, it's going to ensure that you're alive, it's going to prioritize those things. Things that aren't necessarily vital for survival here and now is sex hormone production, being able to reproduce, have good digestion, sleep through the night, have high cognitive thinking, right? Those are functions that aren't necessary for you to survive right now, but when you increase the amount of energy that you're producing, your body can then expend energy on those functions.

So, it can just turn more functions on and your body is just functioning better as a system, as a whole. So, I think that's kind of the simplest way to put it. And a very easy way to assess how much energy your body is putting into this pool is your body temperature and pulse measurement. And it's not just your waking temperature because high stress hormones can keep that waking body temperature elevated. You have to do three measurements throughout the day. You got to do your waking temperature 30 to 40 minutes after breakfast, and then I like to do midday. And you want to see that temperature rise. For many people who are on low-carb or who are living on stress hormones, they're going to have potentially high waking body temperature, but after breakfast, that temperature may drop. And that's because the food that you're consuming is lowering your stress hormones and then your actual body temperature is then better exposed.

So, we want to see that body temperature rise. And I love how both of us are so passionate about linoleic acid. As humans, linoleic acid consumption has gone up, human body temperature has gone down. So, the types of fats that we are consuming in our diet is impacting energy production in a negative way. And it's shown with obesity rates out the roof. It's shown with the decline in our body temperature. It's shown with the decline in our healthy life expectancy, which is bizarre as a first world country.

So, there's just so many profound effects. But I think when we just think of it as energy production, the more energy we can give our body to be able to perform functions, the better it's going to function. And I asked this question for someone who is really adamant about fasting. I say, "If you've got two bodies, one body that's fasted and the other body that is fed nourishing food, which body is going to thrive and function better?" It's obvious. Whereas if you add a third person, maybe that person is fed more of a standard American diet, of course maybe fasting is going to make you feel better, but you can elevate yourself a step above. You don't have to rely on fasting in order to increase energy production. Your body is not going to increase energy when you're not giving energy in. That doesn't make any sense.

Dr. Joseph Mercola:

I would have to pretty strongly disagree with you. Shock. Why?

Ashley Armstrong:

All right, let's hear it.

Dr. Joseph Mercola:

Because fasting is not a step – I mean, the alternative that we're proposing is not a step ahead. It's exponentially superior. Exponentially. There's no comparison. It's different as night and day. And that is because the only major benefit that fasting does is it lowers the fuel for the gram-negative bacteria. Primarily, it's related to that, lowering the gram negatives, which will decrease endotoxin, which is another pernicious threat. So, endotoxin, estrogen, linoleic acid, stress hormones — these will all decrease your mitochondrial function, largely mediated in big part by the thyroid function. So, those are the big things. What I'd like to get from you now, with your understanding of the application – you're kind of rapidly reaching expert level on this – is your perception of the contribution of linoleic acid, which we're going to focus on a lot, as I said, versus the low-carb, because you did get some improvement. Anyone will get improvement with low-carb. Most anyone, we're not disputing that. Absolutely no argument, largely because you're lowering the endotoxin load. So, can you weave those together for us?

Ashley Armstrong:

Yeah, I mean, the body uses fat for fuel, right? Especially if you have more muscle. If you have more muscle on your body, standing here, you and I, our muscles are using fat for fuel.

Dr. Joseph Mercola:

Especially your heart.

Ashley Armstrong:

Especially your heart. And so, we're not saying fat is bad, but the different types of fatty acid molecules have drastically different structures and those impact the internal environment inside of us. They impact how your body is producing energy. And so, the more saturated we can become – which is so opposite of mainstream. The more saturated we can become, the better our internal environment is going to be. And like you said, when someone goes low carb, maybe they reduce the amount of packaged food that they're eating that contains a ton of vegetable oil and linoleic acid, and so potentially they're resaturating some of their tissues.

But when you learn about what livestock are being fed these days, then you realize, “Oh, a high animal fat diet can still contain quite a bit of PUFAs (polyunsaturated fatty acids) and linoleic acid depending on what those animals ate.” And so, I think it's important to consider the amount of each macronutrient that you're intaking because that can have profound impacts on your energy production. Resaturating your tissues is going to take you to the next level, but adding in appropriate levels of carbohydrates is just going to allow you to take your conscious level and energy production level in your body to the next level. How much further do you want to dive into linoleic-

Dr. Joseph Mercola:

Yeah, we'll stay a little bit here, and then we'll go into the farming operation. So, the refinement of this is the type of carbohydrates, and there's virtually no doubt, I'm close to 100% certain on this, that the ideal carbohydrate is fresh, ideally, ripe fruit. Ripe is the key here. Not all fruits. I mean, some are better than others. I don't know if you've reached a conclusion, but I have, and I'm pretty confident this, that the single best fruit you can get, the single best fruit – What's your pick for the single best fruit?

Ashley Armstrong:

Orange juice.

Dr. Joseph Mercola:

No, no. Now, that's a good point. And let me diverge that pulp-free orange juice – and do you know what the best brand is of [a] commercial brand?

Ashley Armstrong:

I have not dived down that, but I use Uncle Matt's.

Dr. Joseph Mercola:

Uncle Matt's is good, but there's one better.

Ashley Armstrong:

Nancy's?

Dr. Joseph Mercola:

Nope. Evolution.

Ashley Armstrong:

Evolution?

Dr. Joseph Mercola:

It's cold-pressed. Yeah. Cold-pressed.

Ashley Armstrong:

Oh yeah, yeah, yeah. Okay.

Dr. Joseph Mercola:

Evolution. That is the best.

Ashley Armstrong:

And then you strain out the extra pulp?

Dr. Joseph Mercola:

Well, there's a confusion on this and many people are surprised because in some ways it does violate a principle, and the general picture is whole fresh foods, right? That's the goal. Now, the reason why that needs to be modified is because so many people are sick. Their gut bacteria are so profoundly, adversely affected that they have something akin to SIBO (small intestinal bacterial overgrowth). And maybe the infection hasn't traveled up through their small intestine, but it's certainly in their large intestine. And that infection will respond adversely to what are typically useful fibers, but these fibers are going to make you worse because they'll increase endotoxin production.

So, if you're new to this, if you have a very unhealthy microbiome, then your answer is correct. For that population, pulp-free orange juice is one of the best, no question. That is kind of the ultimate one that will gently and safely allow you to enter the higher carb world. Now, as your health microbiome improves, then you can transition to whole fruits, which is, I believe, far superior than the juices. So, assuming you have a healthy microbiome, what is the best fruit for you? That's the question. But thank you for refining that because what you said was accurate. For some people, pulp-free orange juice is going to be the best. Uncle Matts and Evolution – I don't know if evolution is pulp-free, though. It may not be. It may not be. I don't know.

Ashley Armstrong:

Yeah. I think it's important to remember, Joe, I'm staring out at snow right now. I live in southwest Michigan, and so abundant fruit isn't always possible for me. And so, relying on things like – I do extremely well with starch and also adding in orange juice-

Dr. Joseph Mercola:

Let's stop – That's a good point.

Ashley Armstrong:

There's-

Dr. Joseph Mercola:

Let me just expand on this for a moment because that is correct. You are living in an aberrant environment. It is not optimized for human biology. No argument about that. You can survive, and that's what you're doing, surviving. But ideally you need to be subtropical at a minimum, maybe tropical, and in that environment, the fruit will grow. But thankfully because of technology, we can compensate for that and you can get fresh fruit thanks to transportation, worldwide, global transportation. That is available. So, I acknowledge that living in that type of environment, you're not going to get fresh, ripe fruit because you're in a wrong environment for

health. So, assuming that, let's go. I love these optimizations because – No, because what you said is true, and pointing those details out is important for people to understand the bigger picture.

Ashley Armstrong:

Yeah. In Michigan, I rely a lot on frozen fruit. So, in the summertime I'll go to strawberry fields and pick strawberries when fresh and then freeze a ton of them. Same thing with blueberries and peaches. And then I rely on a lot of apples in the winter because apples are kind of abundant around here and can be stored. I'm curious, what do you think is the best fruit?

Dr. Joseph Mercola:

I don't think you'll disagree with this. And just to give you a – I have 50 blueberry bushes that are hybridized to live well in Florida, and I gather anywhere between 10 and 15, maybe 20 gallons of blueberries around harvest time.

Ashley Armstrong:

That's amazing.

Dr. Joseph Mercola:

And I store them in my freezer. So, I'm still now having blueberries. Frozen blueberries, biodynamically grown in my garden.

Ashley Armstrong:

That's amazing.

Dr. Joseph Mercola:

So, I love blueberries, but they're not my favorite fruit. The favorite fruit that I have, 3 to 4 pounds a day. Does that give you a hint? And you can have it too. That's the thing.

Ashley Armstrong:

3 to 4 pounds a day? I have no idea.

Dr. Joseph Mercola:

Watermelon.

Ashley Armstrong:

Oh, okay. I love watermelon. I have a ritual of every-

Dr. Joseph Mercola:

I knew you did. Almost everyone loves watermelon. Almost everyone.

Ashley Armstrong:

Watermelon is the best fruit ever. Okay, I agree there. Every single spring, when the first watermelon is grown, I have a tradition that I just eat the whole thing by myself. No one touch my watermelon.

Dr. Joseph Mercola:

Yes. Yeah, because-

Ashley Armstrong:

Watermelon, it's a beautiful fruit, so it's very enticing for humans to eat. Who in their right mind would say that watermelon is bad?

Dr. Joseph Mercola:

Some people are delusional, but yeah, they're not connected to their truth.

Ashley Armstrong:

I was there. I was there. I was convinced that any fruit sugar was bad. I was in that position. I was convinced that. But when you take a step back, it's like watermelon is so delicious. This is something – it is advantageous for our survival for food to taste good. We should enjoy the taste of our food.

Dr. Joseph Mercola:

Yes. That's a clue. That is a clue.

Ashley Armstrong:

We shouldn't have to pound down food that doesn't taste good. That wouldn't have been advantageous for survival. Right? Wow. I agree. I love watermelon so much.

Dr. Joseph Mercola:

You knew the answer. I just had to tease it out of you.

Ashley Armstrong:

Okay, okay. Fair, fair.

Dr. Joseph Mercola:

I can tell you with a high degree of certainty, that is indeed the best fruit that you can eat is watermelon. And one of the reasons why is you can eat a lot of it. It doesn't fill you up that much. And before I started this high-fruit diet, I would say at least a quarter of my calories are from fruit that – I used to drink a half a gallon of water a day. Guess how much water I drink a day now? Zero. Unless I'm doing sauna, then I have to take a pint to a quart.

Ashley Armstrong:

I'm the same way.

Dr. Joseph Mercola:

Additional water. Yeah.

Ashley Armstrong:

I get hydrated with bone broth, fruits and milk.

Dr. Joseph Mercola:

Yeah. Yeah, milk is good too. Do you have goats in your operation?

Ashley Armstrong:

Yes, we do. Yep.

Dr. Joseph Mercola:

I'm convinced that goat milk is probably superior to cow's milk.

Ashley Armstrong:

I would agree. We have a number of customers that, literally, goat milk is the only thing that they can-

Dr. Joseph Mercola:

Yeah. Yeah. I think it's A2. Isn't it A2 protein?

Ashley Armstrong:

Yeah. Goat milk is naturally A2, but it's also naturally homogenized. And so, the smaller fat globules are easier for people to digest.

Dr. Joseph Mercola:

Oh, I did not know that.

Ashley Armstrong:

Whereas cow milk, the fat globules are a little bit bigger. Yeah.

Dr. Joseph Mercola:

Well, I'm in seventh heaven because this weekend I visited a friend, a dear friend, my beloved actually, who lives in South Florida, and we had access to the best supermarket or facility to buy food at, certainly in Florida, maybe in the country. It's called the Green Market. And I was able to connect and find a source of raw goat's milk, and there's 2 gallons sitting in my freezer now.

Ashley Armstrong:

That's amazing.

Dr. Joseph Mercola:

And I'm just in seventh heaven because of it. Plus, I got cheese, feta goat cheese, raw goat cheese and some eggs, which we're going to talk about because we're going to go into that next, which – I'll give you a hint. These eggs are better than yours, and I'll tell you why. No, I thought yours were the best, but they're not. These are better. Significantly better. Yours are next. You're like level two, but these are beyond that. I'll tell you why. It is just so fascinating. I'm going to hope to inspire you to move in this direction.

Ashley Armstrong:

Okay.

Dr. Joseph Mercola:

Yeah, because it's just – I have been floating ever since I got back home from this place because now I have some of the best food that humans can possibly eat. It's like, "Great!"

Ashley Armstrong:

What was the rennet used to make the cheese?

Dr. Joseph Mercola:

I don't know. I mean, that's a good point. I've actually hoped to talk to the farmers today or very shortly after today. So-

Ashley Armstrong:

So, this is a-

Dr. Joseph Mercola:

Tell me [inaudible 00:21:33] what I need to know about the rennet.

Ashley Armstrong:

Okay, so we have started a food system from scratch, right? And so, I have a say in every single step of the food production process and diving into each step [is] very enlightening of how messed up our food system is. So, cheese needs to be made with milk, obviously, salt, and then some sort of starter culture, if you're going to make feta or Manchego, different starter culture. And then a very important ingredient is rennet, and that's the coagulating ingredient. Traditionally, animal rennet was used. Animal rennet is derived from the stomach lining of a ruminant animal, and it contains the natural enzymes that's required to coagulate milk. It's meant to happen. All of this, we were meant to eat this food. Well, Pfizer created a microbial rennet, and it is derived from mold that eats genetically modified corn and soy. And so, there's some research pointing that there's some byproducts of that production process in that microbial enzyme.

Dr. Joseph Mercola:

Is that mold aspergillus?

Ashley Armstrong:

I'm not sure. I'm not sure.

Dr. Joseph Mercola:

Okay. But it's bad news.

Ashley Armstrong:

It's called FPC (fermentation-produced chymosin). And so, Pfizer created this in the early '90s, and now over 90% of the cheese made in the U.S. uses this FPC because it's so cheap to make. So, with our food co-op, we require that all of our cheese is one, made with A2/A2 milk because I think that that is much more natural for us. And two, all of the cheese is made with animal rennet the way that it should be made.

Dr. Joseph Mercola:

Well, thank you, thank you, thank you. It's a really important thing to do. Yeah.

Ashley Armstrong:

People who have issues with cheese, if you try an animal rennet source, you may digest it better because there's no lactose in cheese. You shouldn't have a problem digesting cheese, but the source of the rennet can cause digestive issues for people. And so prioritizing animal rennet, cheese made with animal rennet, that is I think pretty important.

Dr. Joseph Mercola:

Okay, good. Great. Great. That is awesome. And I'm pretty confident this supplier is doing the right thing because they're so ahead of the game and everything else. I'd be shocked if they weren't, but I'll absolutely confirm it. And an interesting combination, I don't know if you've tried it before – And by the way, I would encourage you, strongly encourage you to consider having, going through one or two watermelons a week. There's no reason you need to deprive yourself in the winter. We have global transportation. You can get them from Central South America. They grow there year-round. Okay?

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So, get some watermelon. You deserve it. You deserve it.

Ashley Armstrong:

Okay. Okay. I'll get some watermelon.

Dr. Joseph Mercola:

100% you deserve it. Okay. And then you've got the feta cheese there, right?

Ashley Armstrong:

Yes.

Dr. Joseph Mercola:

Yeah. So, try the watermelon and feta cheese. Think about it.

Ashley Armstrong:

With a little mint.

Dr. Joseph Mercola:

Yes. Yeah, but think about it. Doesn't that sound great?

Ashley Armstrong:

That sounds delicious. That is the perfect snack.

Dr. Joseph Mercola:

Oh, yeah. It's just fantastic. So, I wanted to go on a little sidetrack now before we go on. Watermelon also has really large quantities of a – I think it's an amino. No, it's not. I don't know how you classify this chemical, but it's called citrulline. I think it's an amino acid-like substance because I believe it converts into arginine, which is a precursor for nitric oxide. Now, nitric oxide is important to your body. Now, there's a big caveat here. If it's obtained from food sources – Certainly, if you take a pharmaceutical like Cialis or Viagra to increase your nitric oxide, you're just accelerating your path towards death prematurely. No question about [it]. Those are very dangerous, toxic drugs that should not be used by humans, should not be used.

But if you even take artificial citrulline or other synthetic amino acids to augment your nitric oxide production, don't do it. You are in for bad news. It's not going to improve your health, it'll worsen your health. But if you eat watermelon, you can do it because that's the source that your body was designed to augment nitric oxide production. With something like citrulline from real food that's derived from the best fruit on the planet.

All right, that's a good tangent. Back to reality. We're talking about feta cheese. I'm glad you're producing it. I think maybe we can pivot over because there's so many things we can talk about. We can pivot over to the egg production because I'm really excited about sharing it. I just learned this within the last few hours by the way. This is brand new for me. And actually, as I said, I was suspicious because my beloved told me about these eggs, and I did not believe, I didn't think it was possible because I was under the mindset that you couldn't feed chickens without extra calories that you had to provide them. And that belief is true if you live in environments like you are right now, because – I'll go for a little few more minutes and then I'll let you go on as much as you want because you are the clear expert in this area.

I am just beginning to understand this, but I'm so excited and I am fairly confident you're going to agree with this. And we have not discussed this previously. I've never talked to Ashley about this, but their ideal food is not – I mean, you've developed a great process to feed them, and I've been using that, but the ideal food is insects that are fresh from the ground. Now, you can't do that without [a] substantial workaround, and I'm going to discuss that with you, because it is possible. You can't do that in most of the U.S. because the ground gets cold, it freezes and there's no insects available for them, and they need fresh insects. But the reason this farm has the best eggs [is] because they never get anything but the bugs in the ground. That is their 100% sole diet. Now, the eggs you've developed have – I think, it's 75% [less] linoleic acid than regular eggs.

And that's the danger of eating eggs. Eggs – we're talking about whole food, how to feed yourself. Probably the reason why this conversation is so vitally important for you to understand the details of is because whole eggs, or the egg yolk specifically, is one of the finest foods that you could feed your body with. The only thing that comes close is organ meat. Egg yolks are the ultimate. They are the ultimate food, and the problem is 99.99% of the eggs produced in this country are not that good. I don't care if they say “free-range,” “grass fed,” “organic.” It doesn't matter. They're terrible because they have four times higher the amount of linoleic acid that is so dangerous. We don't have time to go into it now. I've talked about it. Most of you know about it already. It is the primary variable that's destroying your health.

So, you have to be obsessive about this. You need eggs. If you have an allergy, that's a different deal. But most likely if you're getting it from chickens who just ate bugs, you're not going to

have that allergy, most likely. I don't know. It's possible. Sometimes when you fry eggs and you scramble them, you can get an allergy to the white. It's not so much the yolk, it's the white because that's the protein. We're going to talk about that in a moment. So, I can go on and on, but I want to give you this digestible bite so you can respond.

Ashley Armstrong:

Yeah. So, I think that there's an ideal world and then there's reality. So of course, we would all love to just have chickens eating bugs, but then there's the production issue and being able to actually pay your bills and be profitable. And so, what's the next best option to feeding chickens just abundant bugs? I agree. Bugs are a great diet for chickens. However, this is very important for people who own chickens. Do not buy dehydrated bugs-

Dr. Joseph Mercola:

I was just going to say that, right, because they're even worse. They're even worse.

Ashley Armstrong:

Those bugs are created in a small basement or lab in these weird tanks and they're fed corn and soy. So, I've looked into this. Those dehydrated bugs-

Dr. Joseph Mercola:

Mealworms, typically.

Ashley Armstrong:

-are very high [in] linoleic acid. They are a huge linoleic acid source for your chickens' diet.

Dr. Joseph Mercola:

Worse than the grains. Worse than the grains.

Ashley Armstrong:

100%.

Dr. Joseph Mercola:

Yeah, yeah.

Ashley Armstrong:

I think that would be the ideal condition. And I have an image in my head of what I want to bring our farm to in the future of a greenhouse where we've got fodder growing on the ground, and I have a worm farm that I can transport into there, and so then they'll get abundant bugs in the

winter. That's what I want to move towards, but that requires a lot of financial investment. So, we'll get there one day, but-

Dr. Joseph Mercola:

Yeah. You're already going there. That's what I was going to hopefully inspire you to move to, but you already know that and you're going there and [inaudible 00:30:39]. I'm going to recommend some things that could help accelerate that for you because this is what we need. This is what every darn farm in the country, anyone who's producing chickens needs to know this. This is vital. This is crucial. It's one of the most important foods you can eat.

Ashley Armstrong:

Well, I think – so, you're saying it doesn't matter the types of labels on the eggs. I think it's important to consider organic soybeans have the same amount of linoleic acid as non-organic soybeans, whether it's grown conventionally, organically does not change the fatty acid composition of soybeans. You don't want to be eating eggs from chickens fed a bunch of soy vegetable oil and other high omega-6, high-PUFA foods. And so that's kind of where I'm at. What's the next best option? How can we give the chickens an appropriate amount of calories and a macronutrient composition that works for them in a way that we can keep them healthy so that they have enough energy? Because Dr. Mercola, it's kind of like the whole fasting and low-carb thing that we were talking about earlier. Your chicken is not going to thrive if it's underfed.

Your chicken is not going to thrive if it doesn't have food. And so, in my opinion, I am trying to boost the metabolic rate of our chickens as high as possible. Just like us, chickens are monogastric, single-stomach animals. The types of fat that they are fed, the types of fat that we are fed impacts the types of fat inside of us. This is a little bit different for ruminant animals, cows, goats. But for monogastric chickens, pigs, their diet is very important. And this is why I am so passionate about it. Because [in] our food system, we have been lied to and convinced that saturated fat is bad for us. So, you've seen a huge push for polyunsaturated fatty acids, PUFAs, in our diet. This is going beyond just human dietary choices. This is impacting our livestock food. And this is having profound impacts on not only livestock health, but then the types of food that we're consuming.

This is a very deep problem in our food system, and unfortunately, corn, soy, distilled grains — these things are government subsidized and there are huge systems and networks to set up so that this is an easy feed option for farmers. And that's my biggest problem, is farmers are not out there trying to do bad things. They're trying to pay their bills. They're trying to do the best that they can. The system is set up such that these are the easier choices for farmers. And a lot of farmers do not have the resources to take things to the next level, to get their own feed made, or get their feed imported from another thing. It's the system that has huge, profound impacts. So not only are human dietary fats going in the wrong direction — we're eating less saturated fat, we're eating more polyunsaturated fats. The same thing is happening in the livestock industry.

And this is because this belief that saturated fat is bad and polyunsaturated fat is good, that belief is so pushed that when you read the literature for livestock feeding, pretty much all the authors say, “Because PUFAs have health-promoting benefits, it is advantageous that we increase the

PUFA concentration of livestock.” This is happening across the board. Dr. Mercola, even in the dairy industry they're creating things called rumen protected fats (RPF). And so, they are polyunsaturated fatty acids that in a typical rumen digestion system, they can go through the process called biohydrogenation, I believe, which turns the PUFA into saturated fat. They are designing rumen protected fats so that the PUFA is passed through the rumen. The PUFA content of milk is increasing. The PUFA content of beef fat is increasing-

Dr. Joseph Mercola:

Wait, wait. Hold on. Hold on there.

Ashley Armstrong:

-and this is by design. This is by design.

Dr. Joseph Mercola:

Hold your thought because I want to acknowledge one thing. So, the words of wisdom you just heard Ashley share. I mean, how could this woman, this tiny young woman, have this much knowledge? But I'm telling you, if you haven't figured out by now, she's probably one of the wisest experts in the whole country on this topic. So, what she's saying is spot-on, dead accurate. She's helping you understand this process. Now, what you just shared, I never heard of before. This is frightening. This is shocking. I had no idea such a fat existed because this is one of the reasons ruminant animals have this – because they have multiple compartments of their stomachs, these bacteria hang out there and they have the capacity to hydrogenate those fatty acids to saturated fats. But the fats that you're talking about, they figured out that we can bypass that bioprotective system and screw the humans. So, now we have ruminant animals being fed this crap, and they have higher PUFA content in their milk.

Ashley Armstrong:

The PUFA content of milk is going up. So that means any dairy fat, that means butter, that means cream, that means whole milk.

Dr. Joseph Mercola:

Butter and ghee. Oh my gosh, this is terrible.

Ashley Armstrong:

And so, it's just-

Dr. Joseph Mercola:

I had no idea this was going on.

Ashley Armstrong:

This is why-

Dr. Joseph Mercola:

We always tell people to do this. Do not take these seed oils. You got to have butter or ghee. But now, even that's perverted.

Ashley Armstrong:

I'll send you links after the podcast.

Dr. Joseph Mercola:

Oh my god.

Ashley Armstrong:

It's crazy because the livestock industry is viewing this as good because they start with the bias [that] saturated fat equals bad, PUFAs equals good. So then how can they design things in the lab in the background such that they increase the PUFA content? And it's happening to a degree in ruminants. But I really need to stress the importance in monogastric [animals] because monogastrics are pretty much your dietary – the amount of fats in a chicken and a pig's diet is almost the amount of fat in their final product. So, it matters so much for monogastrics. It's becoming more important for the ruminants as these people are creating these rumen protected fats. But for lard and chicken fat to have the same fatty acid composition – or not the same fatty acid composition – lard and chicken fat from conventional animals have the same amount of PUFAs as canola oil.

This is profound. We have changed the types of fat inside of us. I believe you mentioned this in your linoleic acid review article. I think the linoleic acid content of humans has increased 136%. That is changing how our body is making energy inside of us. And so, this connects back to the beginning of our conversation. The types of fat that we consume day-to-day have a long life inside of us. 600 days. And so, the types of fat that we're consuming day-to-day impacts our energy production for years to come.

And it's unfortunate because this is just the reality for a lot of people, and that's why I'm so passionate about it. Our food system is designed and set up in a way that is not setting us up for success. And so that's why I want to try to change it by going back to how our food was produced a hundred years ago where there were appropriate amounts of PUFAs in foods, small amounts. Saturated fat was the predominant fat source for both livestock and humans. And to see where we're at today in 2023 and the impacts that that fear of cholesterol and saturated fat has had on us. It's not just humans. It's in the livestock, in the feed industry as well. And that in itself is going to take years to undo. And unfortunately, it's going to impact our dietary intake as well.

Dr. Joseph Mercola:

Yeah. So, the reason you are one of the wisest people in the whole industry on this topic is because you are one of the only ones, one of the only ones that understand the dangers of PUFAs. No one else gets this. They're clueless. It's not that they're stupid. It's just that they're victims of the propaganda and brainwashing campaign of industry. These people are well-intentioned. They really want to do the right thing. They're not evil. They're just doing the best they can. So, they don't understand what you do. If they did, they'd be motivated to do it.

And our goal, collectively, you and I [in] collaboration, is to inspire and change the food production system so that people can have access to this. Because there is no way you are going to be healthy unless you can minimize the linoleic acid. It's physically impossible. I would just like to revise one of the comments that you made, because it's not as precise as it should be, and it's more of an emphasis. You said the increase in the PUFAs decrease our ability to make – But actually, they seriously block and impair energy production. They radically reduce the efficiency and increase oxidative stress through the roof and it just sabotages your health. It literally one of the worst things you can do to sabotage your health is eating seed oils. It really is.

Ashley Armstrong:

Yeah, it's when you think of it in nature, what do squirrels eat when they head into hibernation?

Dr. Joseph Mercola:

Nuts. High in PUFA.

Ashley Armstrong:

What are nuts high in?

Dr. Joseph Mercola:

PUFA. Unless it's macadamia. I don't think these squirrels are eating macadamia nuts.

Ashley Armstrong:

No, no, no. That would be inefficient for their torpor. So, in nature, animals increase their PUFA consumption only up to a certain amount. They only increase their PUFA consumption up to a certain amount to induce hibernation. Some instinct inside of them knows if they go above that amount, they're going to increase harmful toxic oxidation inside of them. They increase their PUFA consumption to initiate torpor, which means their metabolism is so downregulated that they can last the winter without eating. We need to think about that. As a human, do you want to go into hibernation? Do you want to downregulate your metabolism so much that you have to eat 1,200 [or] 1,300 calories to maintain your weight? That is not thriving. Humans should be eating 2,000 calories or above. If you-

Dr. Joseph Mercola:

Well, it depends on your size. Some people may need close to 4,000 or 5,000 and some people, really tiny people – How tall are you? 5 [feet] 2 [inches]?

Ashley Armstrong:

I'm 5 [feet] 4.5 [inches].

Dr. Joseph Mercola:

5 [feet] 4 [inches], okay.

Ashley Armstrong:

And I'm like 2,800 calories a day.

Dr. Joseph Mercola:

Okay, good.

Ashley Armstrong:

And I maintain my weight.

Dr. Joseph Mercola:

[inaudible 00:41:00], your thyroid works. Your thyroid finally works again.

Ashley Armstrong:

Yes, but largely because I try to keep my PUFA consumption as low as possible. And you can easily track that in Cronometer and see what your total PUFA, total linoleic acid content is per day. And you were talking about this earlier, conventional eggs. If you have four conventional eggs, you're already at about 5 grams of linoleic acid in a day. And I would want people to be lower than that.

Dr. Joseph Mercola:

That's your limit. You do not want to go above 5 [grams]. I mean, you should be lower, but 5 grams] is like – do not go above 5 for sure.

Ashley Armstrong:

And all foods contain some amount of linoleic acid, so even milk's going to have a little bit. And so, you need to-

Dr. Joseph Mercola:

Yeah. Enough.

Ashley Armstrong:

-yeah, you're getting the essential fats. By eating animal fats, you're getting the essential fats, if that is even essential. You're getting the amount that you need. You don't need to go-

Dr. Joseph Mercola:

I got a really good – do you read Georgie's blog?

Ashley Armstrong:

Oh, yeah.

Dr. Joseph Mercola:

Okay, good. Then you probably saw this and it's just a reminder for you. But there is an important – there's no question, omega-6 is not essential. Technically you could classify it because if you got a lab diet that was created in the lab, does not exist outside of the lab, it's physically impossible to eat real food and become deficient in linoleic acid. You can't do it. You cannot do it. It's impossible. Just know that. So that means it is not essential because all you have to do is eat. Now if you're in an artificial situation like you're on total parenteral nutrition or you're just not eating food, then you can get deficient. But that's really unusual. But there's-

Ashley Armstrong:

If you're just eating carbs and coconut oil, you may not eat it. But vegetable oil-

Dr. Joseph Mercola:

[inaudible 00:42:54], in my 4 pounds of watermelon, there's almost a gram of linoleic acid.

Ashley Armstrong:

Exactly. You're getting some amount in your food.

Dr. Joseph Mercola:

Yeah, yeah. I'm telling you, there's no question about it. So, it's a pretty significant source, if you eat that much watermelon. And I'm not talking about eating the seeds. I'm talking about just the watermelon or the rind. Yeah, don't eat the rind. When I say 3 to 4 pounds of watermelon, that's watermelon meat. That's not the rind. Okay? That's what I'm talking about. So, the point I want to make on Georgie's blog, and it just opened my eyes. I'd heard it before, but I really understood it now. So, there is a true essential fat that you need and not everyone is getting, and that is called the odd-chain saturated fats, specifically it's pentadecanoic acid, and there's heptadecanoic acid also, but the penta one is the most [inaudible 00:43:46], it's 15 carbons. And the reason they're essential is because your body digests, metabolizes more specifically, fat in chunks of two.

Cuts off two carbons and they get metabolized or produced into acetyl-CoA, which gets shuttled into the mitochondria to burn as fuel. Now, when you get down to three, then you cut to two and that goes in and you got well left over with one, what happens to this one? Well, this one turns into succinic acid, which is really, really important for the Krebs cycle. And if you don't get enough of this pentadecanoic acid, you're going to run into problems. And you know this, I'll let you answer it. What is the finest source of pentadecanoic acid? The odd-chain saturated fat.

Ashley Armstrong:

Wouldn't it be butter?

Dr. Joseph Mercola:

Yes. Or milk, more specifically, but butter [inaudible 00:44:33].

Ashley Armstrong:

Dairy fats, dairy fats.

Dr. Joseph Mercola:

Dairy fats. Yeah, dairy fats.

Ashley Armstrong:

The lab that I collaborated with at Michigan State University to get our fatty acid test done for our eggs, they're kind of just now getting into this. And so, this long-chain fatty acid, I think, is an upcoming thing in the literature. I think it's not really there yet.

Dr. Joseph Mercola:

The odd-chain, the odd-chain.

Ashley Armstrong:

Sorry, odd-chain fatty acid literature isn't there yet. And our eggs actually showed to have significantly higher levels of those relative to pasture-raised corn- and soy-fed. And I think it's-

Dr. Joseph Mercola:

The odd-chain fats? They measured them?

Ashley Armstrong:

Significantly more. What?

Dr. Joseph Mercola:

They measured them?

Ashley Armstrong:

Yeah. And so, they're just now getting into that. So, I think it's going to become more and more apparent in the literature of why they're beneficial. But there's a lot of resistance to them studying them because what does it promote?

Dr. Joseph Mercola:

Promotes anti-industry for sure.

Ashley Armstrong:

It promotes more saturated fat intake, and that's counter to what the mainstream – So, there's a lot of confusion and talking to this lab was very insightful because they're like, “Yeah, it seems to be that these fats, these odd-chains, they're very health-promoting, but they're only in saturated fats which aren't good for you.” And I'm like, “Oh!”

Dr. Joseph Mercola:

A clue. A clue.

Ashley Armstrong:

Ding, ding, ding. Yeah. And I think it all goes down to that production of those inside of an animal's body I think is dependent on their fatty acid composition intake.

Dr. Joseph Mercola:

Yeah, I couldn't agree more. And it turns out that if you didn't get any of these odd-chain saturated fats, then a high saturated fat might be problematic. It actually may be counterproductive if you take it to a high level. You need these odd-chain saturated fats. That's why you need butter. You need milk. These are essential for your food. Your optimized biology and health is dependent on these. You need to get them.

Ashley Armstrong:

Yeah. To summarize for the audience, it goes back to the intro part of the conversation. These odd-chain fatty acids, they're just coming into your body and they're helping you increase that energy pool. They're helping you produce more energy inside of your body, and that's just ultimately going to improve how your body functions.

Dr. Joseph Mercola:

Yeah. Okay. I think we could tangent now. There are so many things we can talk about. It's kind of fun. No preparation, we just – off the top of our head and we're going to help a lot of people.

This is great. The tangent – we actually had this discussion on the phone because I was concerned for you. And since that conversation, I've acquired a little more information. I'm a little more confident in my suggestion, but I was concerned – I mean, we're talking about eggs. There is little to no doubt, we're both in agreement with this, that everyone should be eating eggs. Unless you have a severe allergy. Of course, you're not going to have to eat something you're allergic to.

Ashley Armstrong:

Wait. But the diet of a chicken impacts the allergenicity of those eggs.

Dr. Joseph Mercola:

There we go. You see – See, I love [that] I say something and you get the details. This is the third time you've done it now. And picking out those details is vital to improve the understanding. So, these tangents are just perfect. So, thank you. So, expand on that.

Ashley Armstrong:

Eating soy, so what is soy high in? Some phytoestrogens that can be very problematic for some people. Dr. Mercola, those get passed through to the egg. So, if a chicken is eating those phytoestrogens that can be problematic for humans, those get passed through into the eggs. So, we have a number of customers that cannot eat any other eggs, but they're totally fine with our eggs, and it's because of the diet of the chicken. So, if you have allergic reactions or problems with eggs, try a different source where they're not fed soy. Some people can be allergic to corn as well, and that allergenicity can pass through the egg as well. But it seems like soy is the biggest culprit. So, try a different source where they're not fed those things. But be careful of many corn- and soy-free feeds because those are fed high-PUFA ingredients like sunflower and flax and fish oil and vegetable oil and safflower oil. And so, just be really careful of your source there and ask what the chickens are eating. But yeah, so [the] allergenicity of eggs, I think, really depends on what the chicken eats.

Dr. Joseph Mercola:

Thank you, thank you, thank you for highlighting that vital, important piece of knowledge. So, that is tremendous. And thank you for refining my understanding of it too, because I thought it might've been more to [do with] the protein in the egg white being cooked incorrectly, but it's probably what they were – it makes perfect sense. I believe you're spot on. No question. So anyway, with that refinement, if you can get ideal eggs, and Ashley and I hope to catalyze an entire industry, an entire industry in the United States-

Ashley Armstrong:

We're working on it. Trust me.

Dr. Joseph Mercola:

We're working very hard to make sure that it's easily available to you at a relatively low price. It's going to be more expensive because it costs a little bit more to make this. We'll go into details why this is the case, but that is our goal, that is our passion to do this because eggs – let me just finish up the thought that you so wisely corrected me on, thank you so much – Is that I believe now everyone, assuming it's the right eggs, everyone should be eating these every day, whether it's one, two, or in my case, six eggs a day. So, I eat six eggs, but I only eat one egg white. I eat six egg yolks, one egg white. Why do I do [that]? “Oh, that's wasteful.” Yeah, it is. But [you] know what I do? I take the egg whites and I feed them back to my chickens.

I cook them and feed them back, so it recycles. Because why am I not eating egg [white]? “What is wrong with you? You can cook the egg white and the albumin won't bind to your biotin. So, it's not an issue.” Yeah, but it is the highest food source of tryptophan, and tryptophan is the immediate precursor for a molecule, a supposed happy hormone molecule, that is a neurotransmitter that is not, not, not beneficial for you. That's serotonin. The higher serotonin levels, the worse your health is going to be. So, the last thing I want to do is give my body the opportunity to create more serotonin. That's not happening on my watch, for sure. So, Ashley knows this. She's really smart. She understands this. She chooses to eat the egg whites, but she makes specific compensations and I'll let her discuss that next, describe what those are.

So, you at least can do that if you choose to do that. But I still believe that the ideal ratio for human beings is one egg white per six – and this should be cooked – one egg white per six yolks. You're having a lot more than that. So, that's ideal. Now when you understand, Ashley is radically healthy. She's transformed her entire life by making this diet choice. So, she can get away with this. I think she'd be a little better, but that's her choice and I'm not going to trash her for it. She'd definitely improve it. I think it'd be even better if she didn't eat the whites. But anyway, let me have her explain to you how she compensates and minimizes the absorption of the tryptophan.

Ashley Armstrong:

Yeah, so I think the more we can optimize our internal environment, the more our body will be able to make choices that improve energy production [and] improve our health. And so, as Dr. Mercola mentioned, that tryptophan can be converted into serotonin, but it's not always going to be converted into serotonin. There are things inside the body that can break that conversion. And so, you are an optimizer, right?

Dr. Joseph Mercola:

You got that right.

Ashley Armstrong:

We're on the same page. We are trying to push human capacity beyond normal. And I think that's amazing.

Dr. Joseph Mercola:

[inaudible 00:52:13] optimize, you're right, that is the word. Optimize. Optimize biology. That's what I strive for.

Ashley Armstrong:

But if you put yourself in the position of a mom that has four kids, she works a job, she does not have time to take six eggs, take the yolks out of six, cook just one of them, just make sure that the whites of just one of them are cooked and then discard the rest. And so, I think we have to think in terms of-

Dr. Joseph Mercola:

Make some compromises, some pragmatic compromises.

Ashley Armstrong:

Yeah, let's think about what other people are going through and just eat two eggs, make sure the egg whites are cooked, have some dairy with your eggs. That's very important. Increasing your calcium intake at that meal will reduce that conversion. So, I think the calcium to phosphate ratio in your meals is very important and you can improve that by eating dairy. And so, that I think would be the first tip, to increase dairy in that meal, but then also make sure you're having enough carbohydrates with that meal.

Because as Dr. Mercola pointed out in his last article, carbon dioxide is a magical compound. And I think that that is the huge, huge difference between low-carb and high-carb individuals because carb oxidation produces 50% more carbon dioxide inside of us. So, Dr. Mercola pointed out that by breathing a certain way, you can improve your carbon dioxide production, but you can also improve your endogenous production inside your cells by the fuel source that your body is using for energy production. So, having carbohydrates with your eggs is very important to increase carbon dioxide levels. And then that in itself will also reduce the amount of tryptophan to serotonin conversion. And then we can get into things like quinones, like vitamin K2 and [inaudible 00:54:06]. I'm into this tonic water idea right now.

Dr. Joseph Mercola:

Because of the CO2?

Ashley Armstrong:

Because of the CO2, and it does contain some quinones as well.

Dr. Joseph Mercola:

Oh, so real quinine water?

Ashley Armstrong:

Quinine. Yeah. Yeah. I have not yet been able to find a source that has citric acid in it, so I'm on the lookout for it because tonic water was a huge thing that our ancestors ate back in the day, and I think that it plays a valuable role, but-

Dr. Joseph Mercola:

I'm going to look at that. I think you can bypass it with the K2, K2 and CoQ10. I don't think the need for it is that high. And then getting other sources too, which [if] we have time we'll touch [on], so thank you for bringing that up. But I just wanted to mention that my concern for your health is radically diminished because, in stating that, you reminded me you were only eating two eggs a day. Now, if you were eating six eggs a day, it'd be an issue. That would be an issue for sure. You're not, you're eating two.

Ashley Armstrong:

I go between two and four. I go between two and four.

Dr. Joseph Mercola:

You're still fine. With what you're doing, it's not ideal, but it's not a big deal. It's almost insignificant.

Ashley Armstrong:

I also believe that egg whites contain some good protein.

Dr. Joseph Mercola:

They do.

Ashley Armstrong:

However, it's very important to eat those with carbs. So, seeing people eating eggs, just eggs for breakfast, that is drastically lowering your blood sugar. You need carbohydrates to compensate for that because, Dr. Mercola, I think that if someone just eats eggs for breakfast, I think that a lot of that tryptophan is being converted into serotonin. If you add dairy and if you add carbohydrates, you're going to reduce that tryptophan to serotonin conversion. Make it simple, eat eggs, dairy, carbs — there you go. There's a meal.

Dr. Joseph Mercola:

Let's be a little more specific because carbs could be putting that poached egg on bread, which we don't recommend. Carbs are bread, but it's typically all [inaudible 00:56:02].

Ashley Armstrong:

I eat sourdough bread every single day. I thrive with sourdough bread.

Dr. Joseph Mercola:

But with no seed oil?

Ashley Armstrong:

Long fermented. Long fermented.

Dr. Joseph Mercola:

And no seed oils?

Ashley Armstrong:

Oh, no seed oils. Yeah. Most commercial bread is made with yeast and it also has a bunch of vegetable oil in it. Don't eat standard bread.

Dr. Joseph Mercola:

Right, yeah.

Ashley Armstrong:

Find traditional sourdough.

Dr. Joseph Mercola:

If you're going to eat bread – or traditional sourdough, that would be acceptable, but you do not want to eat regular bread. For sure.

Ashley Armstrong:

Yeah, yeah. So for breakfast, have eggs, milk and some honey or maple syrup and fruit. Boom, there you go. You're drastically reducing the conversion of tryptophan to serotonin and it's a simple meal. You don't have to go and collect the six egg yolks, discard five and cook your six. I like to kind of make simple practical tips for people. I think most people would benefit from just eating a little bit more regularly, not fasting and then binging at the end of the day. If we can implement more healthy meals in a more regularly timed manner, I think people would do much better off with blood sugar regulation, cognitive thinking and just overall function.

Dr. Joseph Mercola:

I agree. I think your recommendations are far more practical than mine, and I think I probably should adopt them myself, unless you really want to go extreme like I'm doing, but it's probably unnecessary. So, thank you for that revision. And where was I going with that? Oh, talk about the yolks.

Ashley Armstrong:

Oh, but back in the day, though-

Dr. Joseph Mercola:

[crosstalk 00:57:39]. What's that? Back in the-

Ashley Armstrong:

Back in the day-

Dr. Joseph Mercola:

No, let me finish – Can you remember that? Because I just want to finish this so it doesn't get lost.

Ashley Armstrong:

Yeah, yeah.

Dr. Joseph Mercola:

One of the reasons, one of the primary benefits – almost everyone, almost everyone is deficient in choline because really the only way you can get it is – I mean you can eat it through liver, but you have to eat too much liver to get significant choline – is egg yolks. And four is your goal. Less than four you're not going to get enough choline, you're going to be choline-deficient. So, I eat six, I got 50% more than I need. I got a buffer. But you want to shoot for four eggs a day ideally. So, why don't you talk about that and then go on to what I interrupted you [inaudible 00:58:24].

Ashley Armstrong:

Well, mainstream health recommendations are still telling you that egg yolks are bad and you should just eat the egg whites and they sell egg white cartons at the grocery store. And I think back to when I was really into bodybuilding era, and that is still a common thing. Rice, egg whites, they're so devoid of nutrients. And circling that back to our beginning conversation, those nutrients are vital co-factors for energy production. And so, you can't just slam a bunch of nutrient-devoid food. I think that that's where people may run into issues with high-carb intake, is their nutrient-devoid of, for example, vitamin B1 or choline or all of these necessary cofactors to improve energy production. And so, focusing on making sure every single day you hit nutrient-dense foods, that will help your body produce more energy as well.

Dr. Joseph Mercola:

Yes, indeed. Okay. Now, there's an important point we glossed over and I was going to get to later and that later is that time now. So, you had mentioned in your justification – that's probably the best term for it – of feeding the chickens during the extreme sessions when they can't have access to the bugs is the justification of using that feeding system. And I believe that, I adopted

it, and I didn't understand that I was in one of the few areas of the country where I didn't need to do that. And you implied that it was commercially impractical. I would challenge that because this farm is doing it. They are selling eggs and their cost of production goes down pretty dramatically.

Because when I was implementing your system and I went organic, had to have it shipped, I was literally – the cost of producing my eggs, just the food, not my time, otherwise then we'll go through the roof if you have to factor my time – was about \$150 a month, I was paying for grains to feed them. So, those grains, split peas, and we'll talk about your formula in a moment and then your plans for doing this. But I want to get this in first and if we have time, I'm going to CO2. So, it was about \$150 a month and I would get maybe five or six eggs a day. So, you can do the math on that. It's pretty pricey. I mean just to pay for the food for the chickens.

Now, they'll eat that food for sure, but they didn't need that. And the person that works for me on my property, he's a handyman, he's a farmer. He's a really wise agriculture guy. He wanted to push me in that direction. I resisted largely because of the information I had from you. “No, Ashley knows what she's doing. We're going to do it this way. This is the way we got to do it.” But when I discovered this farm in Florida, and I'm not going to disclose it until I connect with them and make sure I continue getting my supply, although – I had a dozen chickens and we got a big, big fox that got into it and destroyed all the chickens. I got one left out of that.

Ashley Armstrong:

Oh no.

Dr. Joseph Mercola:

And four geese. I was loving my geese and the geese are all dead.

Ashley Armstrong:

Oh no.

Dr. Joseph Mercola:

Yeah. So, we're going to put an electric fence in. That's the other thing. You have to protect them against predators. I have a coop at night, they go into [the] coop and the coops [is] locked, and there's no night [inaudible 01:01:28] other than this fox, which got them around sunset or sundown or sunrise.

So, I was going to give up chicken farming, but literally within half an hour prior to my interviewing you, I've reached a conclusion I'm not going to give up being a chicken farmer because now I don't have to. It is virtually maintenance-free. There's no food to feed them. They eat the bugs. All you got to do is go in and harvest the eggs. How much better and easier can it be? So, if you live in – Now, I'll let you respond to this and we'll go into that because I definitely appreciate your feedback. This is a dialogue. This is not a lecture, okay?

Ashley Armstrong:

Yeah, yeah.

Dr. Joseph Mercola:

Yeah. So-

Ashley Armstrong:

What do you think the macro composition of bugs are?

Dr. Joseph Mercola:

I don't know. You've looked at it obviously.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So, your argument then is that you're not optimizing their biology?

Ashley Armstrong:

Chicken health. No.

Dr. Joseph Mercola:

No. Okay.

Ashley Armstrong:

So, you're telling the chickens to go on a keto diet?

Dr. Joseph Mercola:

So, they're not going to get enough food?

Ashley Armstrong:

I think that their health is drastically improved when you add carbohydrates.

Dr. Joseph Mercola:

Oh, okay. Okay. Bingo. I got the answer.

Ashley Armstrong:

All right.

Dr. Joseph Mercola:

You know what the answer is?

Ashley Armstrong:

Huh?

Dr. Joseph Mercola:

I live in Florida and we had a bad hurricane. It was a Cat 5, almost a Cat 5, and by the time it hit us, it was a Cat 3, but it destroyed most of my fruit trees. Destroyed them. Because I'm on the river and the water came up. And I have dozens and dozens of banana trees. They love bananas. So that's where-

Ashley Armstrong:

Oh, they love bananas.

Dr. Joseph Mercola:

That's where they're getting their carbohydrates. I don't care about the serotonin in chickens. Probably, it's not an issue. But they're going to get a lot of bananas. Yeah. And I give them – guess who gets the watermelon that I have leftover?

Ashley Armstrong:

The chickens.

Dr. Joseph Mercola:

The chickens. I guarantee their favorite food is watermelon. So, I give them fruit. So, what is your revision? So, the revision here is [to] let them have the bugs for the protein and the fat, and give them fruits.

Ashley Armstrong:

So, all right, I want you to think back a hundred years ago. We're on a small homestead. Chicken feed kind of wasn't a thing, right?

Dr. Joseph Mercola:

Right.

Ashley Armstrong:

That really wasn't a thing.

Dr. Joseph Mercola:

Table scraps.

Ashley Armstrong:

Exactly. So, chickens would go to compost piles, they would get kitchen table scraps. So, they're eating a very balanced diet. I think that chickens will thrive and produce better-tasting and better eggs when they're fed carbohydrates because their energy production is increased when they eat carbohydrates. And so, Dr. Mercola, yes, maybe the most ideal situation is them eating bugs and bananas, but if that chicken, if that chicken coop-

Dr. Joseph Mercola:

And watermelon. Watermelon's great.

Ashley Armstrong:

Yeah, watermelon. If that chicken coop is not rotated around, those chickens are going to be on a very degraded landscape. And so, I think management of-

Dr. Joseph Mercola:

Oh, no. Wait. I live on 2 acres and they have free access to the entire 2 acres. At night, they're in the coop for predator protection.

Ashley Armstrong:

I'm talking about – okay, so let's think about more commercial production. So, like my farm and the network that I'm trying to create with our egg business. With a thousand chickens, if those chickens are not moved, you are causing soil degradation, and so the natural insect population is going to decline. And so, rotationally moving their chicken coop – part of regenerative agriculture, very important to me. Probably my No. 2 favorite topic. Mobile pasture-raised is very important to ensure that they're getting enough bugs [and] they're getting enough grasses. Eating a little bit of the grasses and getting fiber is beneficial for their diet as well. So, I am trying to emulate the best possible situation of having chickens at a somewhat larger scale. We're never going to go to a confinement building operation that's 5,000, 10,000 birds stuffed into a building. That's horrible.

But if we think about being a little bit more commercial, doing this for a business – both sides, the business has got to make money. And being at more of a commercial business-size scale, what's the best thing that we can do to keep them healthy, keep our costs as low as possible? Because unfortunately, corn and soy are subsidized by the government. So, our tax dollars are

paying for the corn and soy subsidization. And so, the feed ingredients that I choose in our feed are more expensive. They're just two to three to four times the cost as corn and soy feed. So, how can we emulate that in the best possible way that is benefiting our environment? We're getting more back to the environment than what we're extracting. We're improving the chicken health, we're keeping PUFA content to zero or as low as possible, so that we can produce the healthiest eggs as possible. So, I think context is very important and doing the best that you can given your situation, I think, is key.

Dr. Joseph Mercola:

Yeah. Okay. Well thank you for refining that. I was actually doing that anyway. I didn't realize that was an important part of the equation that I didn't mention. I was giving them the fruit, so they get like, I don't know, I got a dozen chickens, maybe 4 pounds of bananas a day.

Ashley Armstrong:

Yeah, so-

Dr. Joseph Mercola:

Now that the bananas are back – It took a year for the banana trees to grow back.

Ashley Armstrong:

Oh, gosh.

Dr. Joseph Mercola:

I mean, we've had no bananas for the last year.

Ashley Armstrong:

Yeah. So, in the winter and throughout the summer too, the way that I kind of emulate that insect is every single week the chickens get a huge pile of beef meat and organ scraps. So, I know that that's not practical for everyone, but I've got a really good relationship with a butcher just down the road and I get access to all of his homestead, 100% grass fed beef scraps. And unfortunately, most people don't want the heart, they don't want the liver, they don't want the tongue.

Dr. Joseph Mercola:

That's the best.

Ashley Armstrong:

Rather than letting that go to landfills, I come and pick that up once a week and I deliver it to our chickens. And so, they get a boost in protein, a huge boost in nutrients with the liver and the organ meat. So, that is one of my ways to increase their micronutrient intake and also increase

their protein. And then of course, they also get a bunch of organic food scraps and things like that and their feed. So, I think doing the best we can to utilize the resources that we have at hand. Unfortunately, that's where the system makes it really hard for farmers because the resources that many people have available are just not good. And that's the really unfortunate part about all of this.

Dr. Joseph Mercola:

So, it is. Now I am sure that many people watching this want to get their eggs from you. I've gotten my eggs from you when the predators first hit and the production went down. And the other variable that we didn't touch on, as winter emerges – and you can talk on that before we finish with this other point. My production was going down from seven [to] eight a day, nine a day, down to one or two, and that's because there was low light. So, you helped me how to understand. I fixed that. So, why don't you discuss that? Because that's a variable that, if you're raising your own chickens, you have to consider because the egg production does not have to go down in the winter, but there's a way to compensate for this.

Ashley Armstrong:

No.

Dr. Joseph Mercola:

So why don't you expand on that?

Ashley Armstrong:

Animals are very sensitive to light hours and it all goes back to circadian rhythm, circadian biology. Same thing with humans, right? If I didn't take biohacking steps in the winter, my metabolism would down regulate as the light hours get shorter and shorter. I use incandescent light bulbs. I use red light therapy to boost my body's light exposure because light is a signal of abundance and it improves overall health. Same thing with chickens. Supplementing them with strategic light hours can boost their health because at the end of the day, a chicken that is healthy enough to produce an egg is a healthier chicken. And so, increasing their light hours so that they have the same amount of light or similar amount of light throughout the year can help more regulate their production. And I don't think it's cruel at all. It's improving their health because light is good for the body. It is advantageous for the body to see light. Darkness is a stress on the body.

Dr. Joseph Mercola:

That's very well said. So, thank you for that brilliant piece of information that helps educate so many people, because this is probably the first time I heard it. And it did work for me. I used an LED light. It was a cool white, so it had more of the blue light. And I put it on at about 3 a.m. so they get four extra hours of light in the winter as opposed to giving [crosstalk 01:10:17].

Ashley Armstrong:

The most ideal would be a no-flicker light. So, if you can swing that, that would be the best, because then that's just less stress.

Dr. Joseph Mercola:

Yeah, it's a good point. I forgot about the flicker. I'll have to check to make sure the light's not flickering. Well, I'm only down to one chicken now, so it doesn't really matter. I'm going to raise them from scratch, though. How long does it take? It's been a while since I raised chickens from the beginning. Is it like three or four months before they start producing? Four months?

Ashley Armstrong:

Four months, yeah. I would recommend not starting your chickens from chicks. If you want to kind of expedite that process of getting your eggs back, you can buy pullets, which are chickens that are almost ready to lay. And so, they're pretty much around three months, sometimes four months of age. And just get them on your feed as quickly as you can. Give them four weeks to change their internal fatty acid profile and then start eating their eggs. So, once they're on the healthier diet for four weeks or so, then the linoleic acid content has been shown to drop. So then that way you can have eggs in one month from now. So, get the chickens, feed them the diet, wait one month, and then you can start eating their eggs rather than trying to raise them from chicks, which you can totally do if you want, but raising chicks requires more infrastructure, it requires a brooder, and then you got to feed them for all those times. So, I would definitely recommend exploring the pullet chicken option.

Dr. Joseph Mercola:

Geese are a little longer. Geese are like six months, I think.

Ashley Armstrong:

Oh, wow.

Dr. Joseph Mercola:

Yeah. Maybe I'm mistaken. It seemed like six months, though. I love geese. I'm actually more fond of the geese than the chickens. They're just better pets. I really love them.

Ashley Armstrong:

We just got turkeys, and turkeys love you. Chickens don't really love you. It's sad. You love the chicken, the chicken really doesn't love you.

Dr. Joseph Mercola:

Yeah, it doesn't care.

Ashley Armstrong:

They just want your food. But turkeys seem to actually want your company, so it's been fun.

Dr. Joseph Mercola:

Yeah. Yeah, that's good. So, maybe you'll get some geese someday.

Ashley Armstrong:

Yeah, I would love to do duck eggs and geese eggs in the future for sure.

Dr. Joseph Mercola:

Yeah, yeah, they're really good. Yeah. So, as I was starting to say before we went to tangent on the light, most people would want your eggs. Everyone needs your eggs or eggs like yours, a hundred percent, if you hope to stay healthy or improve your health. The problem is because of the expenses involved and everything that goes into it, your eggs are significantly more expensive. Maybe four times as much with shipping because it had to be shipped. That's another cost.

Ashley Armstrong:

I know, but you were wrong in that article. You were wrong in that article. I wanted to be like “tsk tsk.”

Dr. Joseph Mercola:

Okay, correct me. I'm always open for correction.

Ashley Armstrong:

You chose one rate shipment, which is an expedited two-day shipping. So, you went all bougie on it and chose expensive shipping. Shipping can range from \$8 to \$20, if you want more expedited shipping. But I think anyone that understands a startup business, when you are small, costs are very high. As we're able to scale in a way that makes sense for the land, makes sense for the animals and makes sense for us, our input costs will go down and we will be able to lower the price. And I am actively working towards that because I'm not going to stop in my pursuit of changing the food system. It is what I was put on this earth to do.

Dr. Joseph Mercola:

This earth needs you. 100%, this earth needs you. No question about it.

Ashley Armstrong:

Yeah. So, as we scale, which we are making steps behind the scenes to scale, and the way that we're going to do that is bring in more partner farms and I will bring our feed to them, that way no one is running a confinement operation. I don't want to have 10,000 chickens at my farm.

That doesn't make any sense. That's a confinement operation. And so, we will have more partner farms and then that will allow us to scale and we can reduce our input costs and lower costs across the board for everyone. It's just, as a startup business, costs are high. Our feed is very expensive, but I am working with the guy that's making our feed to get that cost lower and lower over time. And we've got some really cool steps that we've made just this past week.

Dr. Joseph Mercola:

[inaudible 01:14:35]. That's good. So, you're doing the best you can with the eggs, admittedly. So instead of four times, it might be three times as high with shipping, but it's still high. It's going to be unaffordable for a lot of people. And even more practically, the volume [of] people that are going to reach out to you – because we're definitely putting your contact information for Angel Acres, isn't it?

Ashley Armstrong:

So, we've got our egg business, which is Angel Acres Egg Co. And then we've got the food system that we're starting from scratch with milk, cheese, low-PUFA pork [and] low-PUFA chicken. That's Nourish Cooperative. So, we've got Angel Acres Egg Co., which is our egg business, and then Nourish Cooperative, which I think is going to be the healthiest food system possible. No vaccines, no antibiotics, no hormones. All the chickens and the pigs in the co-op are fed low-PUFA. So, their fatty acid composition is tested to be lower. We're creating a food system from the ground up. And so, we've got our egg business, Angel Acres, and then the other business, which is just the milk, the dairy, all that other stuff, that's Nourish Cooperative.

Dr. Joseph Mercola:

And the goal, my intention, is to support you in this area because this needs to be done all across the country and you're doing it locally. I know your plans are to spread this at a national basis because this needs to be reproduced all over. Everyone needs food, and it's way less than 1% of the country that has access to this type of food. It might be one-tenth of 1%.

Ashley Armstrong:

If at.

Dr. Joseph Mercola:

Yeah, if at. I think you're right. I think that's right. I mean, it's just one in a thousand people [who] have access to this. So, the demand is going to be huge, and I'm confident – if you happen to get this newsletter early or this article, you could go to the list and sign up. And even before this goes out, you still have a waiting list. You can't even sell it to people.

Ashley Armstrong:

Well, my good friend is now a partner farm, and so we now have one partner farm added.

Dr. Joseph Mercola:

And more partner farms are coming. So, you'll be able to ship at some point. Right now-

Ashley Armstrong:

Yeah. So, you can sign up for the wait list and you'll get an email notified when the eggs are ready. But Nourish Cooperative, we're ready. We ship to all 50 states.

Dr. Joseph Mercola:

Okay, perfect. So, I'm confident that the food that Ashley's producing in her farm systems are some of the best in the United States. No question. Really, really high-quality. Ideally, you can do it yourself. That's what I'm doing here in Florida. But it's going to be a while. It's going to take me three more months before I get my eggs produced from the chickens that I acquire. I'm going to make sure that the farm that is feeding the bugs – I believe they're likely getting fruit. I'll have to make [sure], I do not know that, but that is the key. They have to have carbohydrates. And if they don't, they will know that real shortly. I didn't realize that might be the weak link in their armor.

Ashley Armstrong:

We don't want keto diet chickens.

Dr. Joseph Mercola:

No, no, I get it. Believe me. I only need to be told once, that's it. I get it. It's less than ideal for so many different respects. But I do believe there's an opportunity for you and most of the other farmers in the whole U.S., because Florida and certain places in California probably can do this too, but we can get the bugs year-round. That's not an issue. With no extra additional cost. But I think it's going to make sense once you have the capital flowing in to invest in some greenhouses to make sure you have live grass growing bugs. But also, most likely it's going to involve some geothermal energy production that you can pump – It's not terribly expensive because, essentially, the only capital required is to invest in the system, like the furnace, and then the actual production of the energy, it's in the earth.

You're going to basically pump up groundwater and circulate it in tubes in the geothermal format. So, you'll keep the ground from freezing and the only energy investment on your end would be to run the pump. And you might even be able to do that off of solar, I don't know. But it's going to be relatively minor. It's just running a pump. You're not burning fuel to create energy. You're using the energy that's already there in the Earth. So, does that sound like something you'd be open to?

Ashley Armstrong:

Oh absolutely. That is the long-term goal. The only factor that we have to consider is we have to work with Mother Nature and Mother Nature is much smarter than us. We will never fully

understand her, but we do know some certain principles and rest is a very important principle of Mother Nature. She needs adequate rest because if we just have chickens on the same plot over and over and over, there won't be bugs much longer because the more life we take out of the soil, it's not going to be able to give back.

Dr. Joseph Mercola:

Okay, so here's the strategy then. It's going to be more capital-intensive, but you have a mobile greenhouse that you move around, very similar like the coops, and then you have plumbing design so that the well is built and that you can pump out in the pump. The only thing is that you can divert it to whatever zone you have the greenhouse over. Actually, that may end up being less than ideal because the ground's going to freeze and it'll take a long time to unfreeze it. I don't know. There's a lot of logistics that need to be filled up, but the potential is there.

Ashley Armstrong:

Oh, yeah.

Dr. Joseph Mercola:

I agree. You can't abuse a single plot of land. It will stop working.

Ashley Armstrong:

I mean, we barely have winters anymore. They're very mild. And so, essentially, this would just need to be a solution for about two months and then all the rest of the months of the year, just making sure that the mobile coop is moved. So, mobile pasture-raised poultry, and then in the winter months, there's this greenhouse with grasses and abundant soil underneath. And then during the summer months that greenhouse is rested. That's not used in the summer months.

Dr. Joseph Mercola:

Okay, so let me run something by you because I've been a chicken farmer for three years now. About three years, maybe four. I don't recall when I started.

Ashley Armstrong:

You've been a chicken farmer longer than me.

Dr. Joseph Mercola:

Yeah. Yeah. Wow. But you helped me quite a bit and you do this full time. It's just a necessary hobby for me because I didn't know how to get healthy eggs, and I was not going to eat a linoleic acid egg. There's no way I was going to eat commercial eggs. That wasn't happening on my watch. So, I'm thinking, from what you're saying, that the idea would be to build a coop. I'm going to probably have probably a dozen chickens, I think. It feels about right. I might reflect, maybe down to 10. And put them in a coop that is mobile. Mobile. I need to know the

dimensions of that coop. And then move it around. But also, it's going to have an electric fence around – Actually, that might be a problem for the chickens.

No, maybe put it out. So, the electric fence is around there for the predators because otherwise they'll come and dig under there. And if the coop – because these foxes are just atrocious, they just get in there. It's hard to get them out. But do you think that would be sufficient to put the electric fence around? And it's mobile so you can move it, move the electric fence.

Ashley Armstrong:

So, hear me out.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

So, a small chicken coop, let's just assume it's a mini greenhouse style, and then on the backend you've got a door where they can go out, and then on the backend put a fencing around it in a square attached to the coop. So, then all you have to do is just move the coop and it moves to the fence with it.

Dr. Joseph Mercola:

Okay. Maybe if you can draw it out for me or something, if you can do that. But is that-

Ashley Armstrong:

Or you can get a-

Dr. Joseph Mercola:

Is that just with-

Ashley Armstrong:

You can get a guard dog.

Dr. Joseph Mercola:

A guard dog would work?

Ashley Armstrong:

We don't have any predator problems. Our guard dog takes care of all of it.

Dr. Joseph Mercola:

But then you have to feed the guard dog. But that's probably easier to do. Then you've got to feed them real food.

Ashley Armstrong:

Meat scraps.

Dr. Joseph Mercola:

Yeah. I don't eat much meat. I mean, I eat meat, but not much. I only eat about 3 ounces a day and there are no scraps. There are zero scraps. All right. That's another option that might be easier than the fence.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

How big does the dog have to be to qualify as a predator dog?

Ashley Armstrong:

You got to get a specific breed, so like [the] Great Pyrenees [or] Anatolian Shepherd. And you got to bond the dog or introduce the bond to the young chicken at an early age so that they don't eat the chicken.

Dr. Joseph Mercola:

Oh, yeah.

Ashley Armstrong:

You got to time that appropriately.

Dr. Joseph Mercola:

So, you have to buy a puppy. You buy a puppy?

Ashley Armstrong:

Yeah. Yeah.

Dr. Joseph Mercola:

And do you always-

Ashley Armstrong:

But doing the fence around the coop and just making sure that you move that every day and it's electrified, that's going to take care of most of your chicken problems, especially if you have one of those automatic doors that is sensitive to the light and goes up and down, and you make sure that the chickens are trained to go inside their coop, you'll be fine.

Dr. Joseph Mercola:

Okay. So, I will call you for more details. Are you okay with that, to figure that out? I really want to implement this and I think – are there systems available that have actually created these types of coops? I mean, my handyman could easily make it, but-

Ashley Armstrong:

Your handyman will be able to make it. It's so simple. Yeah, it'll be good.

Dr. Joseph Mercola:

Yeah, okay. All right. All right. Well, this is good. So, maybe that could be part of the processes. Because your passion is to help create healthy food solutions, so as part of that, obviously you're producing it for those who want – most people aren't going to be able to commit the time, effort and resources to do this themselves. But for those who can, I think it would expand the reach of your goal to provide them with the instructions to produce it locally.

Ashley Armstrong:

So, I do not disagree [with] that at all. I know you consider me an expert, but I believe that an expert has at least five years of experience under them. I want a little bit more time to fine-tune everything and once I can find time – we're limited to [a] certain number of hours per day. Once I find time-

Dr. Joseph Mercola:

Yeah, yeah. Of course. Imagine that. Why do we have to sleep?

Ashley Armstrong:

I know, I know. I know. It sucks.

Dr. Joseph Mercola:

Oh, I got to share something with you that you may not [have] realized because we're both on the same frequency with respect to optimizing our health. Once you optimize your biology through the process we've described under this interview, your requirement for sleep decreases, it goes down to four to six hours.

Ashley Armstrong:

Oh, wow.

Dr. Joseph Mercola:

Four to six hours. Six hours you want to shoot for, but you can comfortably go down to four if circumstances require [for] whatever reason. And then maybe have five or six [hours], maybe even seven. The last two nights, or two nights before last night, I had less than seven hours between two nights. So, it was like three and a half hours a night of sleep, and that's pushing a little too much. You'd never really want to go below four unless you just have to. But then last night I slept seven and I feel great.

And one of the principles you can determine if you – I mean, it's hard to know if you [have] optimized biology. You use your fasting insulin level. If it's below 3, it's probably a good clue. But when you go into that territory, because you're probably getting close to seven or eight, which is recommended, and that's true. If you don't have optimized biology, you need seven or eight hours of sleep. It won't work. You need seven or eight. But if you are healthy, you can get by with four to six. So, that might save you a little time because you optimize your biology, you get to benefit from it and you can do more things.

Ashley Armstrong:

So, but-

Dr. Joseph Mercola:

Let me give you the caveat. The caution is that if you notice you're yawning a lot during the daytime or you are just not mentally sharp, that's a clue. That's feedback your body's giving you that you didn't sleep enough that night.

Ashley Armstrong:

But if you're going to push your hours awake, making sure that once the sun goes down, you have adequate light in the room because then if you're staying awake in darkness, that's increasing your stress hormones.

Dr. Joseph Mercola:

Well, how about the revision of this? Because what I do is after sunset, I'm in red light. That's it.

Ashley Armstrong:

That's great. It just would be different if you're sitting in darkness not sleeping.

Dr. Joseph Mercola:

Oh, no, no, no. You've got to have light. You just don't want any blue frequencies after sunset and ideally before sunrise. But I'm not as rigid about the sunrise. If I'm up and walking, I don't

mind blue light in the morning. I don't want blue light at night before I go to sleep. Because I've already slept and blue light's going to impair melatonin production.

Ashley Armstrong:

The position of the light is very important at night. You want the light below you because your photo receptors in your eyes are looking up and so you want the light below you.

Dr. Joseph Mercola:

Yeah. But if you've got red light, it's in the ceiling. It's 3 watts.

Ashley Armstrong:

Yeah, not a big deal.

Dr. Joseph Mercola:

And there's no flicker. I got no-flicker red light bulbs in 3 watts. So, I don't think it's a big issue. You're not staring at the light. It's just enough to see and enough to fool your body.

Ashley Armstrong:

Yeah. No, back to the point of helping people produce food for themselves. A hundred percent, that is a passion that I want to get to one day. I'm just not at the position right now. I think I need a little bit more experience, and I also don't have time right now. Building Nourish and Angel Acres takes up so much time. And then we have our Strong Sisters as well. Down the line, am I going to get there? Absolutely. That would be so enjoyable.

Dr. Joseph Mercola:

We'll definitely collaborate because your information needs to be shared, and I'm happy to promote your work so that you can have the funds to do your mission because you have a very noble mission. Food is absolutely an essential requirement, and you're producing some of the healthiest foods that humans require. The only part you're not getting is the fruit, but that's done. That's an easy part. The hard part of the equation is the animal for reasons we discussed, that is really hard. So, congratulations on being such a pioneer, trusting yourself and having the courage and the bravery to do what you're doing. So, thank you.

Ashley Armstrong:

Well, thank you. I appreciate other people who understand the connection between the two because what your food ate is very important.

Dr. Joseph Mercola:

Absolutely. Yeah. You got it. That's your advantage. And I really believe why you've reached expert status way before anyone else is because you have the fundamental principle that they're lacking. Now you don't have the technical details down that are necessary, but you'll get there in another year or two. You'll be there.

Ashley Armstrong:

Yeah. Yeah.

Dr. Joseph Mercola:

Okay. All right. Well, keep up the good work.

Ashley Armstrong:

Thank you. Thanks, Dr. Mercola. Appreciate you having me on.

Dr. Joseph Mercola:

All right. Bye now.