Enhance Cancer Outcomes With Metabolic Flexibility Transcript

(Transcripts are generated by AI and may contain errors)

From Hunter-Gatherers to Farming

All right, everybody, we are going to dive into metabolic flexibility and how it can improve your cancer outcomes. First, we got to understand where we came from to even have this conversation a short ten, 11,000 years ago.

For thousands of years prior to that, we were all hunter gatherers. And as such we were nomadic. We moved around following our resources, following our food sources all over the globe, in the regions as far as that we could travel to.

But about ten, 11,000 years ago, we decided to start putting down a few routes. And this first started taking place in an area of the world known as the Fertile Crescent, which modern day times we understand is the Mediterranean.

This is also a time when a new genetic came forth because of this change, over ten 11,000 years ago, the Neolithic farming era brought with it a new gene known as the HLA.

The human leukocyte antigen. This is the gene today that is relevant to celiac disease vulnerabilities to viruses, vulnerabilities to autoimmunity, and vulnerabilities to mold toxicity.

So we might think that starting to put down roots and starting to grow our own crops like pulses, legumes, etc. was really handy for our accessibility to food.

It also brought with us some vulnerabilities to our own body, which probably were some of our early on signs that maybe we should rethink, some of these, grains and legumes as, as very staples in our diets today.

So fast forward to the 1850s in what's known as the modern era of humanity. Moving into the post-industrial food revolution is when folks like Dr. Weston A. Price and Dr.

Industrial Food and Health Decline

Pottenger started to notice changes within a few short years of the industrialization where we started milling flour and sugar and salt. We started about, having some access to ice.

We started having some access to preservatives and things we'd never had. We started having access to trans portation of foods and food items across regions of the planet.

We started to see degeneration in our health and they started sounding the alarm back in the 1850s, 60s, 70s and all the way into the early 1900s that we've now created some problems by deviating from the way we've been eating at that time for 10,000 years.

Fast forward to post-World War two. This is the postmodern human. This is when we took all of our our excess from all the world wars of our ammunitions and whatnot and decided, hey, we've got all this leftover stuff.

What are we going to do with it? We decided to put it into the pharmaceutical industry and to the agricultural industry. And lo and behold, first the post-modern human.

This is also where we started genetically modifying things. This is where we started bringing in chemicals into our farming and agricultural and and animal raising practices.

We somehow thought that we could do better than Mother Nature herself. This is when we really thought that we could change the world through chemistry, at a time when we were hopeful of that, because we had seen small victories with certain, disease processes being eradicated.

But we might have wrongfully, given credit to areas that we were, you know, should have should we shouldn't have been giving credit to at those times.

But ultimately, the way we eat today is nothing like our grandparents are great grandparents and certainly not our great great grandparents. Depending on which generation you were born in.

So basically, if you were born after 1980, your food supply looks nothing like the original hunter gatherers, not even anything like the modern humans, and has even gotten worse since then.

So just want you to have a sense that the evolution of food has changed drastically, that what we even call food is sort of a stretch. So we've probably seen this slide before when we talk about test assets, address these food changes over the past 10,000 years, over the past 200 years, and for sure, in the past 60 years have really driven up issues with metabolic health.

In fact, today, less than 6.8% of us are considered metabolically healthy. We have, wrongful relationships to our food. We either have food phobias, or we believe that certain foods are somehow healthier than others.

Modern Metabolic Health Crisis

We kind of follow influencers or industry driven leaders, and what we are being told is the way to eat. We were lied to for generations around fat. We were lied to for generations around the danger of eggs or butter, thinking that we could somehow bring a chemical substitution to the market that would help us.

Instead, it created a metabolic nightmare that we're all contending with today. These factors that standard of care defines as metabolic health are things like belly fat, blood sugar, stable appetite, and energy, strong muscles, and normal blood pressure.

I would also add to this list good lipids. And when I say blood sugar, I also mean insulin. and then I would add your lipids, your fat, your, triglycerides, HDL, etc.

I bring this up because standard of care says that you should be able to achieve normal body fat. Okay. So under 25% for women, under 22% for men. normal blood sugar under Prep.

They say under 100. I think it needs to be strong. You know, we talked about the in the test of stress. We talked about you don't want to be average. So I aim to get that under 85.

Stable appetite and energy. 80% of patients walk into a clinician's office today. Complains about poor energy, strong muscles and bones. This is one of our, areas of weakness that HS has so quickly.

If we don't use it, we will lose it. And blood pressure, being normalized and lipids being normalized. What this also says is that none of these should be achieved optimally via the use of medication.

And today most individuals are taking one, if not all medications to support and change these outcomes. So if you have to take things like ozempic or a statin or a glucose medication or blood pressure medication, you are not metabolically healthy.

All right. That's a clue. If you had to take something exogenous to change something, you're not metabolically healthy. And these are the trends showing that by the way, this trends in disparity is showing that less than 6.8% of us are metabolically healthy.

This study was done and published in 2022, despite it, having data that only reached in 2018. Have we gotten healthier? No, I actually believe that we're probably less than 3% of us being metabolically healthy today.

Why? We are simply overfed and undernourished and overfed in more ways than just food or beverage. We're overfed in stimulation, and for our our lack of dopamine or lack of joy or sweetness in our life, we reach for lots of

other things shopping, porn, food, drugs, alcohol, caffeine, stimulants, screen time, movies, TV, shopping.

Foundations of Metabolic Flexibility

As I mentioned before, all these things are things that we hyper focus on because we're so undernourished, we're so under fulfilled, and yet the more we try and fill those holes, those gaps, the sicker we get.

This is just a really great study I wanted to show you from 2020 that shows that, yes, it's important of what you're eating, but it's also important of understanding how stress, sex hormones and sugar all respond with each other, how they dance together.

If you're someone who's like, I eat perfectly, I eat carnivore, I eat vegan, I eat keto, I intermittent fast. But you don't deal with your stress, or you don't deal with your circadian rhythms and your hormonal health.

You are not fixing your metabolic health if you don't. change your diet, but you exercise away a crappy diet, you believe that you can do that. You don't change your metabolic health.

If you think that you can somehow medicate your hormones back into balance without also addressing your stress and your sugar intake, you are delusional.

You are not addressing your metabolic health. And so where we can start fundamentally is at the foundation. A diet that supports metabolic flexibility is one that's much closer to our ancestry, much closer to our Neolithic farming, relatives and our hunter gatherer relatives.

So fasting was the predominant metabolic flexibility tool since we were little tiny zygotes climbing out of the waters, right? We evolved with fasting and then we started to forage.

We foraged fruits and wild vegetables and wild herbs and seeds that might have been our high, high polyphenol rich foods in nature that we only harvested at the time they were available and weren't sitting on shelves.

You were eating a papaya in Colorado in the winter. This wasn't what was happening then and then fat. We were using animal fat prolifically at that time.

Lard, tallow, right. all of those things, the the fish that we were fishing, meat was something that was a commodity. We hunted for it and it was a feast or famine.

We'd go weeks or months without it. And when we did, we went hog wild, pun intended. When we had good access to hunted game, fished game, you know, shot game, whether it, you know, through bows and arrows, etc.

these were the things we had as hunter gatherers and later into the Neolithic farming era. And then and only then, sweets were very, very rare. We had to go to great lengths to get things like honey, we had to go to great lengths to gather berries and fruits.

They were also teeny tiny. Apples were tiny. We've we've evolved them into being these giant sugar bombs today. But ultimately, looking at getting as close to the way the foods that we evolved from makes a huge difference in your metabolic flexibility.

Ketosis and Cancer Support

And then I bring up this concept of ketosis because for many people, it's a bad word, especially in the cancer space, they think that a ketogenic diet can somehow fuel or cause harm to the body, or fuel or cause harm to cancer.

What I want you to understand is ketosis is not a diet. Ketosis is a physiologic state, and the state of ketosis in of which there are multiple ways to achieve ketosis, one of which is with a ketogenic diet, which is a high fat, low carb,

normal low protein diet is to understand that when we have ketone bodies from a variety of ways, we can achieve that.

In fact, we're all born in a state of ketosis, and in our feast, famine days and our fasting days that we evolved from, we were likely in ketosis more often than we were not cycling through it.

And for sure, in times of famine, our bodies knew to just move that elegant hybrid machine of ours into utilizing ketones for our fuel to keep us alive.

But let me tell you a few of the mechanism of actions that we know of. Ketone bodies and being in a physiologic state of ketosis can have in creating metabolic flexibility and actually help us in the cancer space, restores normal apoptosis in cancer cells because it directly impacts the health and wealth of our mitochondria.

And it's your mitochondria that are directly in charge of apoptosis. It lowers angiogenesis by impacting something known as hypoxic inducing factor and vaso endothelial growth factor.

It stabilizes tumor tissue DNA. So it basically damages the DNA of tumors to help them die. Right. And help them stop proliferating. All right. It reduces the tumor size over time.

So it debunks the tumor. It makes it shrink over time, stabilizes and prevents it from further growth. It's an inhibitor. This means it's an epigenetic switch support.

So this helps your epigenetic expression in a variety of ways, including a lot of the things we're targeting now and standard of care oncology. It creates new mitochondria where you want them.

It lowers inflammation via taking out the garbage of the cells that no longer serve you. It reduces insulin, insulin like growth factor and inter, which are extreme drivers in upwards of 90% of all cancer types.

It up regulates Sirt one, which is one of our longevity genes, and Ampk, which is also a longevity gene. These are also the things that lower when they're up.

mTOR is down and enhances the action of standard of care treatments while reducing the most common side effects. If anything, this is what you want to be doing for any of your patients undergoing standard of care, and so much more.

Our colleagues, like Doctor Adrian Shaq, really well known in the field of metabolic oncology research, shows that a state of ketosis and ketone bodies directly impact all ten hallmarks of cancer.

We don't have a single drug or nutrient that does that. So the fact that this is not just part of standard of care still just baffles me.

Meal Timing, Food Quality, and Stress

When we look at other ways to support our metabolic flexibility, the timing of our meals is likely just as important as what we're eating. So you can do time restricted eating.

You can do a ketogenic diet, you can do intermittent fasting, you can do fasting, mimicking diets as people like Dr. Satchin Panda's work show. Eating within daylight hours tends to be one of the most powerful strategies for inducing metabolic health and metabolic flexibility.

You can focus on your circadian rhythm by eating in those daylight hours as well, focusing on the diet and the quality thereof in the CDC, and of course, focusing on the state of mind your and in who you're breaking bread with, if you will.

Hopefully not bread specifically, but what your community is and the environment in which you're eating. Eating is

close to seasonal, local, regional, nutrient dense, without hormones, antibiotics, chemicals, endocrine disrupting pesticides, glyphosate residues, etc.

you have to go out of your way to look for these foods today, and some of us get labeled as orthorexia, that we're obsessed with what we're putting into our body.

And frankly, knowing the statistics, you should know now we have to be a bit hyper focused and then addressing your sugar intake, addressing your hormonal milieu and addressing your stress response, those three S's, it's really critical for you to have good, healthy metabolic flexibility.

And finally, I co-developed this really great handout. You can go straight to this PDF, in the show notes to see what Keto Mojo, our key to our favorite keto, blood testing company on the market, we wanted to put together kind of a one pager of helping you understand the impact of ketosis and the importance of testing for blood ketones, to know that you are actually using a therapeutic tool in your journey with cancer.

Resources and Further Learning

So with that, you can learn more in both these books as well as if you are a clinician or an allied health care provider that wants to learn how to apply a metabolic approach to your patients.

We've got ways of doing that. And if you want to just learn more about what we're up to at the Metabolic Train Institute of Health or join us in our Annual Metabolic Health Day International, as well as listen to a lot of amazing interviews with folks from the Metabolic Matters podcast.

Be sure to follow me there. Thanks so much, everybody, and be well.