The Metabolic Approach to Cancer: Integrating Deep Nutrition, the Ketogenic Diet and Nontoxic Bio-Individualized Therapies: A Special Interview With Dr. Nasha Winters

By Dr. Joseph Mercola

JM: Dr. Joseph Mercola
NW: Dr. Nasha Winters

JM: Welcome, everyone. This is Dr. Mercola, helping you take control of your health. Today we're going to talk about an unfortunate disease that has really taken over this country, which is cancer. We have 1,600 people dying – not coming down with and being diagnosed, but dying, dead – today and every day in the United States alone. It's 8,100 people a day in China. I know they're a bigger country than us, but proportionately that's still higher. There are a lot of people coming down with this. There's no question that you or someone you know or love is affected by this. That's why the topic of this interview is so important.

I, like most of you, know many individuals who have cancer. I obviously can't consult with them. It's not my fulltime job. I haven't seen patients for 10 years. I've been referring them to clinics. I'm realizing there are a lot of good clinics out there, but what is the strategy overall?

I'm interviewing today Dr. Nasha Winters, who is a naturopathic physician, who specializes in cancer treatment. She has – I'll let her describe it in more detail. But she has basically treated cancer patients but has evolved to a more efficient model. She's actually training the clinicians and consulting with the clinicians who are [treating] the patients. I think it's a far more efficient strategy.

Anyway, I've been very impressed with her work. She definitely is highly embracing the ketogenic diet and integrates that as an enormous strategic tool in the therapeutic planning, but also embraces many other strategies that really are difficult to know, even if you study this thing full-time. I've read a lot of books on cancer. I've interviewed a lot of people.

I actually recently chimed in into one of her recent consultations and was so impressed with her ability to really target things to a specific cancer that would be really difficult to get. I'm impressed with her clinical knowledge and thought it would be useful to have her come on and tell you the strategies she's using. Maybe if you're affected by cancer, you can seek to have your clinician use her as a consultant to fine-tune your strategy.

Because fortunately – I'll just finish this introduction quickly. But I believe – I'll certainly have Dr. Winters discuss her views. But I believe that if you catch them early enough, almost all these cancers are curable. You just got to catch them early and you've got to know what you're doing. You've got to stay away from strategies that are going to take you backwards, which are the big things. With all that long introduction – it was a little longer than normal – welcome and thank you for joining us.

NW: Thank you so much for having me here. It's an honor to be on your show and to be able to share. As you're saying, it's like we've got to do something about the statistics. By the time we're done with this conversation today, we'll have merely hit that 1,600 mark of people's lives lost to a disease that can be treated like a manageable chronic illness today.

JM: Let me counter that. I don't know that we are individually going to be able to change those numbers. But what we can do – Because they're such a small minority of people – We're talking to the minority of people now who understand health at its deep foundational level. But even when you do, you need a really expert coach to walk through this, because you've really damaged your body in a way when you get to cancer. But what we can do – there's no doubt in my mind – we can help those people who have been leading a healthy lifestyle and just needs some help to take it to the next step, but we're not going to make a dent in those 1,600 people. That requires a far more strategic and comprehensive overhaul of the entire system, because there are so many pernicious factors that are contributing to this.

NW: True. Just on a side note, that is my life's goal. It's to eventually be able to start to tackle, dive in and even make a tiny little dent in that statistic. But you're right. Where we can be effective is with the folks who already know they've got this going on, who are in a position where they're still well enough and motivated enough to explore beyond their standard of care options, because that's often not enough, frankly, in today's time.

And then also truly – I think the biggest impact, I think, that we can have, especially with the type of work that you do, is we can really help people look under the hood long before it's a problem. Because really, the only true cure is prevention. We've got sort of layers of this. We've got the folks who don't yet have it or don't yet know they have cancer. We have the folks who are already diagnosed or in a relatively good state of health, whether it's a Stage 1 to a Stage 4. Then we have some of the folks who are just really damaged from years and years of unsuccessful treatments that have left their bodies really broken and maybe not as responsive to this approach.

With that, one of the things that I think is very interesting – and you probably hear this all the time – is I can't think of a single time I've met somebody who has been diagnosed with cancer who has not said to me, "Wow. I thought I was healthy until I had cancer." Or people would just say, "I was healthy until I had cancer." Dr. Mercola, you and I both know beyond a shadow of a doubt that that was an impossibility. They just didn't know.

JM: It's a wakeup call. Cancer, like many other diseases, does not manifest itself, as you well know, until you're 80% of the way there. It's not like the first symptom is cancer. You've got to really progress well into this disease. Many times it takes many years – colon cancer is a classic example – before it really manifests. It doesn't matter how you feel necessarily. Cancer is a res ipsa loquitur factor. It's that the facts speak for themselves. You, in some way, shape or form, were not leading a healthy lifestyle.

NW: Exactly. Or just a simple fact of living on the planet today, no matter how much you try, we are being exposed to many things that we don't see, that we are not aware of, that are definitely damaging our container. In a way that our cells are having a harder and more, more difficult time,

increasingly over these years to respond and repair the way it should. I think that that's one of the strategies that I'm helping physicians understand. Because our medical system is not geared towards prevention. I mean, my gosh, not even close to that. We're very much waiting for a house to be engulfed in flames before we decide to spit a little bit of water on it, right? My strategy has always been "Test, assess, address and then adjust accordingly and repeat as often as needed."

JM: Why don't we start there? Because that's one of the impressive points that you mention in the consultation I listened in on with. It's that you have this testing strategy. I think it was four tests, I believe, that you recommend everyone. In fact, you require them before your initial consultation with them to have done. They are markers of how advanced the cancer is and how well they're doing as you're progressing through with treatment. Why don't you review those tests?

NW: Sure. One thing in your latest book I really loved is the last sort of section or chapter of your book is specific to testing to sort of be able to see where you are before you start the KetoFast process where you are in the process and after and along the way. This is no different when we're looking at a chronic illness. With cancer in particular, there are a ton of tests, as you're also well-aware. Because I have this client who we consulted on together doing some really provocative testing above and beyond. But it was thanks to those basic five tests that gave me the clue as to what else was needed to really assess their terrain.

The first test is simple and inexpensive. It's a blood chemistry. It's a complete blood count (CBC) with differential, which is a complete blood count. That includes things like our white blood cells, our red blood cells, hemoglobin, hematocrit and our platelets. Most importantly of that test that is often overlooked, especially in the realm of cancer and immunotherapy, is your neutrophil-to-lymphocyte ratio (NLR). This is actually prognostic for all overall survival. If you actually go into a PubMed search, you will see that the neutrophil-to-lymphocyte ratio is sort of like the end-all-be-all whether or not you're going to make it or not through any chronic disease process.

Even more interestingly, now that we're putting so much money into immunotherapies and having only about a 20% response rate, most of that reason why we don't have a better outcome is simply because of that neutrophil-to-lymphocyte ratio. When our neutrophils are too elevated and our lymphocytes are too low, we don't have a normal functioning immune system. We can actually tilt the teeter-totter of our immune system into a dangerous place of over-reactivity to some of these new, innovative immune therapies in oncology. For a 12-dollar, paid-out-of-your-pocket, walk-in lab test, you get a really good sense of where your immune system lies. Also –

JM: Before you skip to the next one, what are the ranges considered to be healthy in that? What is your ideal optimum?

NW: Sure. Overall, you want what's considered a 2-to-1 ratio or better of the neutrophil cells to the lymphocytes. That might be 50 to 25, 50 neutrophils to 25. That's kind of your sweet zone. If you go much higher than that, that bigger divide between neutrophils and lymphocytes is a problem. Or if you end up with what we call a "switched NLR," where the lymphocytes are more elevated than the neutrophils, that's often when we're looking at a lot of blood dyscrasias and

blood cancers that are not uncommon after standard of care therapy. This is a really simple, effective way to just even assess if the immune system is on-track or not.

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The other thing we overlooked often is white blood cells. We kind of want them in the sweet spot of 5 to 7. Anything lower than that, which is very common in conventional therapy, is making it challenging to have the body recognize, respond and remember anything that it's being based with, as far as pathologies go.

And then the other piece that we often forget about is things like the hemoglobin. If the hemoglobin is low and you happen to be someone who's monitoring your ketones or your blood counts, your hemoglobin A1C, you're going to get some erroneous numbers because you have to have enough hemoglobin to actually get a true result. They are simple little tricks that we can use with a basic CBC just to see how somebody's immune system is during treatment, after treatment and prior to treatment. It's worth running on your own and paying cash for it just to look under the hood.

JM: The white blood cell optimum was 5.7, you said?

NW: Yeah. Five to 7.

JM: Five to 7. Sorry.

NW: Five to 7. Right. Correct. Exactly.

JM: A neutrophil is a type of white blood cell, but on those CBC results, it'll say WBC for white blood cell count, which includes all of the white blood cells.

NW: Exactly. Another overlooked one on a basic CBC is things like our platelets. When our platelets are elevated above 250, that is also prognostic.

JM: Really? What's the sweet spot for platelets?

NW: Platelets, 175 to 250.

JM: Really? So it's 200.

NW: Yeah. I'm hitting right in that. If we're less than 175, we've got some issues with how our immune system is functioning and clotting disorders. If it's above 250, same thing. Oftentimes elevated platelets can be a good example of a cancerous process. In fact, that's one of the sort of alarms that we'll see in early-stage cancers, our rising platelet counts. We also often see that that's related to fibrinogen – thick, sticky blood patterns, but also related to viral patterns; showing us that there might be some co-infections causing some immune dysregulation, which is also very related to sort of the cancering process that you ignore. Again, it's incredible how this simple 12-dollar test can give us a beautiful snapshot of somebody's immune function.

JM: Yeah. I mean I'm sure almost everyone watching this has had a recent CBC done. It's done on almost every blood test because it's so inexpensive and it provides so much valuable information, including if you're anemic, for the most part.

NW: Exactly.

JM: Look at them and use these results and see if you have some pre-warning signs that suggest something wrong may be going on.

NW: Exactly.

JM: It's so much easier to treat it before than it is to treat it once you have it.

NW: Yes. Nailed it. That's exactly it. And then we do. We kind of look at it really in the oncology world in particular. We really only look at this test to make sure that our white blood cell overall count and our neutrophils are high enough for us to be able to give the next dose of chemotherapy or targeted therapy. That's the only sort of lens that we're looking through through the standard-of-care, oncology world. I talk to oncologists daily. Most of them have never heard about the NLR ratio or the fact that platelets are a prognostic factor for progression of disease or even early warning signs of cancer.

It's pretty interesting to me that that's actually in PubMed searches. It's easy to go in and take a look for any of those standalone tests to see what they mean in the world of oncology. Again, simple. I like that you're kind of encouraging people to pull out and dust off their old lab tests and see if there are some clues there that might warrant a deeper investigation.

The second test I like for folks to run, again, often run routinely, is your comprehensive metabolic panel, CMP, sometimes known as the chem panel. This is typically looking at your electrolytes, your organ's functions, your cardiovascular function, your kidney function, your liver function, via some enzyme activity. This is also a super important clue to see what's going on. For instance, if your creatinine is moving above 1, we know that your kidneys are struggling. They're not filtering properly. Or if your liver enzymes are starting to move above 20 or 25, we know that there are some issues around how your liver is processing things along the way. If alkaline phosphatase is raising, that can often show us first signs of bone loss or bone metastasis.

These are some really powerful ways to assess people's response to the medications, because those enzymes will often go up when they're being beaten up by some drugs. But it's also a really good way to get a sense that there are other organs involved in the overall cancering process. Again, another very inexpensive test. Dr. Mercola, you likely remember that about 15 years ago we actually ran routinely what was called a chem-20 panel.

JM: Or a chem-24.

NW: Exactly, right? These were routine. That included the two other very important tests that I now have to order separately since it's not part of, which is the lactase dehydrogenase, which is probably the most underutilized and most important test across all chronic illness patterns. It is a

marker of metabolic function. My husband, a biochemist, likes to say that if the LDH is elevated, or in simpler terms, if the lactase dehydrogenase (LDH) is on, then the mitochondria is off. That's a pretty interesting way to look at this.

You can even break down that overall LDH into its five constituents of these five isoenzymes and really know precisely where the hiccups are happening in that metabolic process, whether it's at the level of the bone, the lung, the kidney, the liver, the red blood cell, pretty fascinating, and again, very inexpensive.

This is also the main way to monitor things like lymphoma, most leukemias, multiple myeloma and even melanoma. It is considered sort of the cancer marker for those. Yet it's a very misused and even misunderstood and forgotten lab test. I can't tell you how many times I've asked doctors to run an LDH for the patient and I'll get back a low-density lipoprotein (LDL). It would happen two out of 10 times. It's crazy.

JM: Wow. That is nuts. But you didn't have to worry in the past because it was part of the normal panel. But what is the connection between LDH and mitochondrial function?

NW: This is where we're looking at how we are processing lactase dehydrogenase, the process of how we're fermenting or processing our energy through our Krebs cycle, through the shuttle through our Krebs cycle to produce adenosine triphosphate (ATP). It's intimately in relationship to the dehydrogenases, whether it's pyruvate or lactate dehydrogenase. This starts to give you some clues that all is not well in the mitochondrial building when that level starts to rise. Interestingly enough, one thing I neglected to mention as we started talking about the labs is that labs, of course today, are based on the average of the population in the region in which they're being run. For instance, if you live in Alabama and you're running a glucose level, they're still saying you're fine in 120 fasting glucose.

JM: No way.

NW: If you're in Colorado, they're saying that 90 is fine. It even varies from region to region. But overall, you don't want to be average today with regards to your lab values. When I'm talking my functional ranges or ideal ranges – for instance, the lactase dehydrogenase through, say, LabCorp – it should be ideally under 175. I believe the cutoff is around 263. If you run it through Quest, that's a different metric that they run and should not be under 450. It has a higher cutoff at around 600 or 650. You want to be well under the top end on lactase dehydrogenase for optimal ranges.

JM: Can you be too low?

NW: You can. That's an excellent question. When you're too low, that's often a major indicator of extreme malnutrition, often muscle breakdown, muscle wasting, sarcopenia, cachexia, which is also a very dangerous place to be in the pendulum of an oncology or chronic illness process.

JM: Okay. And then the other test.

NW: Yeah. The other one that used to be standard with those more extensive chem panels not too long ago was the sedimentation rates, also known as the erythrocyte sedimentation rate (ESR). This is a really powerful simple test that just basically looks at how fast your cells are falling out of solution, falling out of the plasma.

That test, if you fall out really quickly, that kind of means that your blood is pretty – everything's kind of floating right through there. We ideally like that set rate to be under 10. If it starts to go above that, that starts to show that it takes a little bit for those cells to kind of fall out of this webbing, fibrinolytic, thick, sticky scaffolding that actually has been very akin to a lot of issues in chronic inflammation, autoimmunity and even increasing our risk of metastasis, which depends on that sort of fibrinolytic scaffolding to move about the building.

You don't typically die from primary cancers unless they're strategically placed in some valuable real estate in the body. However, we do have a higher incidence of death from metastasis. When I look at that number, it tells me how well someone – how smooth things are flowing through the system of the body.

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JM: Okay. How do you compare the set rate to the hsCRP, high-sensitivity C-reactive protein? Because it seems that would be easier to do.

NW: Yeah.

JM: But the same blood test. We actually used to run said ESRs in our office. It's an easy test to do. But it's my assessment that the hsCRP might be a more sensitive tool, but I'm wondering what your experience shows.

NW: With the hsCRP, which is the fifth test I request for everybody to run – I love seeing that that's a recommended test for you in your books as well. This is also something that we have spent too many years sort of making it seem like it's just related to cardiovascular health. But it, again, is a prognostic factor. Folks with elevated CRPs, no matter what kind of disease or condition they have, have poor prognosis and lower survival rates overall. Again, found throughout all of the literature searches specific to that lab value.

How it differs is because CRP is just a general marker of inflammation. It doesn't quite show us the where. It definitely tells us the what. Like, it's happening, right? It's a very important marker. For me, functionally, I want that under 1, unless you have a lab that has a cutoff under 0.3, then I want that value under 0.1. That's why we always want to make sure we get a quantitative. Because if they say less than 5, it could be 4.9. Doesn't that drive you crazy?

JM: It's worse.

NW: Exactly. I want a quantitative CRP, high-sensitivity C-reactive protein, if at all possible. Because it gives us the most information. We really can monitor it closely. But here's where the interesting pieces comes together.

Any of those tests, specifically the LDH set rate and the CRP, any of them by themselves have a lot of good studies backing them for their role in monitoring a cancering process or a lot of other chronic illness' inflammatory processes. But what I've learned over 25 years at this point in looking at –

At this count, probably 200,000 or more of these labs run on tens of thousands of patients to look at very particular patterns. It's that when all three of those levels are within my functional ranges – so below 10 on set rate, below 1 or 0.1 on CRP, below 175 or 450 on LDH – if a person has all of those within my functional ranges, I know that they are behind the wheel of their car, okay? I know they're driving. No matter what the scan, no matter what the tumor markers tell me, I know that patient's terrain and mitochondrial metabolic health is still robust enough that no matter what the tumor burden, we can still move this vehicle down the building, down the road.

When I start to see those numbers collectively rise, because everyone's – You'll see a thrown-off CRP, a thrown-off LDH or a thrown-off ESR. If I see for instance a thrown-off ESR, I know that they're likely having some type of autoimmune response. We see this a lot in rheumatoid arthritis (RA), Sjogren's, Hashimoto's flares. A lot of those patterns of autoimmunity really will throw off an ESR. Then you kind of get a kind of sense of, "What?"

Or if we have, let's say, a CRP that's really out of range but the other two are perfect, that could be that you just had dental work or had a really intense workout or really stubbed their toe or stepped on their child's Lego. The LDH might be that they had a bender or drinking with their friends for the weekend or have been taking some steroids and their bones are breaking down very quickly, or just went and did a humongous hike and broke down some muscle very, very quickly.

But collectively? That's the key. It's when all three are in the functional range, the body is still in control. The train is still in control. When it starts to rise, that's when we know we're on a slippery slope. I will tell you this from years of experience that when I have seen people with no evidence of disease scans and perfect tumor markers, no matter what the cancer type was, if that trifecta is elevated, I'm holding my breath. I am more frightened for those patients than I am for the patients who still are showing significant tumor burden on scansor even elevated tumor markers. It's only a matter of time in those patients when it is exploding. That basically means that the cancer stem cells are lining up to take action. That's what we don't have very good success with in Western medical treatment strategies.

JM: Thank you for expanding on that brilliantly. I really appreciate that. I want to take off from there from these cancer stem cells. I recently did an interview just a few weeks ago actually with Dr. Thomas Seyfried, who you're a big fan of, as well as am I. We had a discussion about the cancer stem cells. He really helped me understand that it really isn't a cancer stem cell as much as it is a hybridized and morphed macrophage that comes in and typically fuses with some of the cancer cells. And because it's a macrophage, it spreads through your blood and could seed into other tissues.

The reason I'm mentioning that is because he's of the strong opinion, unlike many people who treat cancer, that he's strongly opposed to biopsies, just for this very reason. He says you could increase seeding cancer stem cells or hybridized macrophages throughout the body. Even though

it may help in the initial treatment of the disease, you might die a few years later down the road because the cancer has metastasized. I'm wondering what your thoughts are on biopsies and the treatment of cancer.

NW: It's interesting. His concern of that seeding – We have had those concerns for as long as I've dealt with my own cancer since 1991, even through my medical training through the mid-'90s. It was these were absolute concerns. It's always been sort of cuckooed or suppressed of this discussion, and yet we've seen many times that depending on the timing, let's say, of your cycle when you have a mastectomy or the type of anesthesia used at a time of a biopsy or the state of the overall health or even the size of the core biopsy chamber that we definitely have that potential to seed.

What has happened is up until the last few years, we still had to do it no matter what. We hold onto that sort of option of diagnosis and treatment, help guide our treatments, because that was sort of our gateway of understanding precisely what we were dealing with. But the beauty today is that we have come into the era of precision medicine. We've come into the era of really evolving and improving on blood biopsies, where we don't have to puncture into the tissue and have – even if it's more theoretic, because – Dr. Seyfried will point out some of the studies that are out there showing that it's beyond theory at this point.

But ultimately, even those who are still arguing that it's just theory, well, guess what? We have the opportunity now to actually look at the blood and gauge those little guys that are moving about the building outside of that primary tumor, because the primary tumor itself, frankly, by the time it's big enough and loud enough to get our attention, we already have seeding happening. We already have cells moving around. In fact, on any given moment, we all have cells. But when we have a functioning immune system, a functioning terrain, our body is handling that on a day-to-day basis. But over time, we get enough insults and injury to the whole terrain, then we don't have the ability to kind of keep house as readily as we had previously.

To me, where I think medicine is going – I attend and listen to a lot of studies, research and work summits on circulating tumor cells and circulating stem cells – to know that biopsies are likely not going to be utilized anymore or not for long.

JM: That's great. Super.

NW: Yeah. That's where we're going. There are definite pros and cons of all of these, right? We haven't perfected it but we are certainly moving in the right direction. We can actually – What I love about the blood testing for circulating tumor cells is today we can even get circulating tumor cell counts on platforms such as Biocept out of California and others that are actually showing us what is in circulation, so we can actually monitor every couple of months to see that whatever therapy we've chosen, whether it was complete standard of care, completely alternative or some hybrid of the two, that we are actually making a dent. If we aren't, we get to change course right away.

We don't have to guess or wait until something's, again, big enough and consuming enough to our body's resources to capture our attention and then make a plan. That's when we get in trouble. It's to wait for when it's too late.

JM: Okay. One of the other challenges that Dr. Seyfried has, and I suspect you share, is that there are three primary tools that conventional medicine has to treat cancer. One is radiation, the other is chemotherapy and the third is surgery. He's opposed pretty strongly to the first two. I'll let you give your viewpoints on it. But it seems to be that surgery is indicated many times. But there's a specific strategy that can be used for surgery, which essentially is optimizing nutritional ketosis.

NW: Yes.

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JM: Putting the person into fasting, even for a few days prior to that, so that the margins of the tumor can be more well-defined and demarcated. The cells become less aggressive because they're relatively debilitated and they're easier to identify and remove. I'm wondering if you agree with that and what your comments are on the other two strategies. Thirdly, if for whatever reason, you can't convince your clinician or are unwilling to switch and find a different clinician to avoid using a biopsy, if going into the same strategy of nutritional ketosis or deep ketosis would be for a biopsy if you had to, because it is a type of surgery.

NW: Perfect. All of these things, I'm excited you're asking questions about. Because in the perfect world, the type of client who I would be working with or consulting on will not have already done their biopsy or their surgery, right? Unfortunately, that is rarely the case. Although, again, my mission is to change that. It's like, "Let's take a breath, step back and really create a robust terrain that can mitigate as much of that concern of either seeding or progression of the disease, with regards to a biopsy or a natural surgical resection."

JM: Let me just put and insert a little tangent here and let you continue.

NW: Yeah.

JM: But that is one of the primary reasons for this interview. It's to make sure that people understand this before they come down with or one of their loved ones comes down with cancer, so you don't make that mistake.

NW: That's the thing I tell people, the emergency of cancer, unless, as I mentioned earlier, unless it was a particular tumor that came on fast in a part of the body that's blocking something like a vessel or obstructing a colon or whatnot, those become medical emergencies. However, the vast majority of cancer diagnoses are non-emergencies. The real emergency is the diagnosis itself and the way you react or respond to that emergency will often really dictate your success at overcoming or maintaining this process.

I'm really thankful for the opportunity to say this on a much larger platform because it's very important. That being said, if I know someone is getting ready to prepare for a surgery or a biopsy – because I treat them the same, whether it's just a tiny little punched lesion on the superficial to

look at if this is a melanoma or something that's opening up the body cavity and going on an excavation.

That being said, we like to spend at least a couple of weeks prepping the body, exactly as you were saying. We like to start things like modified citrus pectin. We start to get them into a fasted state or a metabolic flexible state for the weeks leading up, and a fasted state going into the surgery itself if we are lucky enough to have their SNPs, their single nucleotide polymorphisms. We then can really help them decide on the best strategy for pain management.

We do our best to have them avoid opiates at all cost because it's really related to slowing down wound healing, increasing cancer cell proliferation and destroying the microbiome, as well as all the issues that it has around addictions and at really not helping the pain in the way that it needs to be helped. We work on other means of that as well.

And then from that, we also do kind of a post-surgical intervention of how to help them heal up from that wound as quickly as possible. Maybe a bit more protein is needed at that time, maybe a little bit less sodium is needed at that time, just these little tweaky strategies person by person to really prep them.

If they're a woman who is still menstruating, we will try and schedule their surgery where the estrogen levels in their menstrual cycle are at their lowest. That's been an interesting strategy we've used for better outcomes. Same thing whether it's a breast, whether it's uterus, any type of surgery, we really try and lower the estrogen levels. There are strategies we can do to help our patients have better outcomes and better recovery from the treatment itself.

Testing is a very powerful tool, so are some homeopathic remedies, as controversial as they are. The nurses in my community at the hospital might tell me, "I always knew it was going to be an easy night," when they saw this gallon of water that a patient would bring in and say their name, "Filtered water for Joe." The nurses always knew. They're like, "That has to be a Nasha client." Because I would have them load them up with homeopathics, like phosphorus to help with drug reaction and bleeding issues, arnica and staphysagria – all of these different things.

The nurses knew it would be an easy recovery night. They wouldn't probably be dealing with drug overdose issues or bleed outs in the middle of the night, because these were things that really enhanced their outcomes. Funky little simple strategies such as that.

But specifically, when we look at the big stats across all tumor types, all stages, all demographics, chemotherapy has about a 3% success rate across the board. Radiation about a 12% success rate across the board. Surgery about a 50% success rate across the board. It's no wonder that Dr. Seyfried would be more in favor of surgery. Now, when I say success rate, what I'm meaning is a debulking, a cytotoxic pushback, making smaller of the tumor itself from a variety of ways, and a response. That doesn't mean a cure. That doesn't mean no evidence of disease, right? We kind of have different semantics in the cancer world compared to a lot of other health conditions.

That being said, when we look at, for instance, utilizing something like radiation, it's been well understood that if a patient's insulin and glucose are elevated, the radiation is basically ineffective,

because cancer cells are desensitized to radiation when they're being bathed in sugar. I think about all the patients who are metabolically unstable, metabolically inflexible, prediabetic – I hate that word because that also means that you're already diabetic. You're just before we can officially entitle you as such.

But that basically means you just created a lot more damaged environment, a lot more possibility for mutating cells and a lot more possibility for recurrence and progression, simply because someone didn't take the time to just do a simple finger stick or blood draw just to see what your glucose levels were.

Another thing that makes radiation ineffective is elevated vasoendothelial growth factor. Again, a simple serum blood test can help you know how successful your cancer is going to be, with regards to a radiation treatment. We can prep patients. We can maybe spend a few weeks or a few months getting them ready for their radiation by lowering insulin growth factor (IGF), hemoglobin A1C and glucose and adding in some radio sensitizers, such as melatonin or astragalus, into the mix to help these patients actually have better response to their therapy. And even better, around the world, in particular, but in a few pockets here in the United States when you combine radiation with hyperthermia done on the same day, the outcomes are extraordinary. You get a synergy and a cumulative effect that's far more robust and powerful, lowering the side effects, as well as helping strengthen and embolden and create what we call an abscopal terrain effect of an immune reaction that actually helps take and harness that radiation and make it act like an immunogenic therapy.

And then backtracking over to chemo again, the way we do chemo, to that maximum tolerated dose approach is barbaric. It's incredible how we could take a therapy that we've been using for 70 years without much improvement in our outcomes, lower it down to what's known as metronomic levels or fractionated levels, giving it at about a tenth of what we would normally give.

When you do it at that level, you not only create a cytotoxic direct cell kill, but you actually simultaneously enhance an immune response. The way we do chemo today obliterates the immune system. The only way you can really overcome cancer and stay in a maintainable place or a remission place is with a functioning immune system.

JM: Absolutely, which is my next follow-up point, because really, the chemo and the radiation, the major downside, as you mentioned, is that they obliterate the immune system. That radically increases your risk for recurrence down the road. Even though you have a short-term cure or remission, long-term it's a death sentence, because they're destroying the very cells that function in your body to prevent a recurrence.

I'm wondering what your views are, because you've treated thousands and thousands of patients, if you feel there really is ever a place for chemo or radiation, especially modulated as the way you're saying, reducing the dose by 90%, especially optimizing their metabolism so that the cells are more resistant and putting them on low, so that they're making ketones and their glucose levels

are low. You maybe even have some glutamine inhibitors so that the cancer cells are essentially starving and they're weakened and they're very susceptible to being killed.

NW: Exactly. Interestingly enough, I don't ever make that call for a patient. I believe very strongly that the folks who consult with me, be it the patient historically or their doctors, now, on their behalf, I'm really there to support where the patient is. Unfortunately today, most people are very brainwashed that there's only one way.

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What I'm trying to help people understand is we can take that one way and make it far less dangerous and far more effective by manipulating it by doing so via the extreme biochemical individuality of the person that I'm treating or supporting. Getting that understanding of exactly what their tissue type is and beyond just "Oh, it's breast cancer, estrogen and progesterone receptor testing-positive (ERPR-positive)," that's a tiny tip of the iceberg.

We can, today, actually, look at their targets and look at other molecular markers, such as estimated glomerular filtration rate (eGFR), mammalian target of rapamycin (mTOR), insulin-like growth factor 1 (IGF-1) and checkpoint kinase 2 (CHEK2). I mean there are so many things we can look at to sort of get a sense of the flavor and the personality of the tissue itself, which shows us some of the other metabolic issues going on that we can then treat with things like metronomic chemotherapy or targeted therapies, or things like off-labelled drugs that specifically target some of those pathways, or nutraceuticals, certain herbs and supplements that also target a lot of those metabolic pathways. We don't guess. We actually put together a very precise, bullseye approach to each and every individual. We continue every three months while they're in the cancering process.

Until their trifecta is perfect, we continue to assess and we continue to tweak the treatment. Because those cells, once they've been exposed to a new treatment over a short period of time, typically three to six months, they will have morphed and mutated into an entirely new animal. We have to be a few steps ahead of that process each and every time.

Back to your initial question of "Is there ever a time and a place for chemotherapy?" My teacher, Dr. Bastyr, before he died, basically said, "You can use chemotherapy, surgery, radiation and targeted therapies naturopathically, You can use them very biochemically individualized and very thoughtfully and intentionally. But don't just put it like – just napalm on the field or put everybody on the same protocol."

That's where if there is a giant tumor burden or if there's a person who's very frightened to just go at it the alternative route and has deep faith or belief that their conventional therapies are where they need to go to get the help they need, then by all means, let's figure out exactly what standard of care therapies your body's going to respond to. Let's find out what's going to lower the dose drastically. Let's bring on therapies that will also enhance and target other pathways.

Because we can't hit every single pathway with chemotherapy, or it will kill the patient right out. But there are things like the ketogenic diet, which impacts all ten of the hallmarks of cancer simultaneously, thereby enhancing the effect of whatever therapy you overlay on it. None of these

therapies should ever be considered individually, nor is there ever going to be such a thing as a single magic bullet for cancer. That is where we get seduced by the pharmaceutical industry and even the nutraceutical and alternative medical industry, to think that there's one cause and one cure for this process. It is just that. It is a process and it's just as unique in each of us as our fingerprints.

JM: There's a common perception that sugar feeds cancer. To a certain extent, that's true, but it's actually far more complex than that. It's an artifact of that perception. There's another concept that people believe that keto is the magic bullet to treat cancer. While keto is important, it is – I'm a massive fan of keto. I integrate some form of it. I don't believe continuous ketosis is good for virtually anyone, because I believe in cyclical ketosis.

But having said that, I'm wondering if you could give us your opinion about that and how it's integrated. And then as an extension of that, the challenge that we have with many late cancer patients where you get into cancer cachexia and they are under their ideal body weight, which is actually a contraindication for any type of fasting or even intermittent fasting if it's really severe cachexia and how you handle that.

NW: Great questions. Now, for some reason, though I've been doing this for myself and tens of thousands of patients for almost 27 and a half, 28 years at this point, I've been applying the concepts of metabolic flexibility to myself and others for many years. I was very careful with the language I used in clinical practice because you can imagine back in the late '90s if I had started trying out ketogenic diet, I would have been, as a naturopathic doctor, would have been hung out to dry before I ever got started.

But as the momentum in the conversation started to get out there, I could kind of come out of my closet a little bit, as far as how I approach things. I've sort of been labelled as the ketogenic promoter. But like you, I see it as a tool. I see multiple ways to achieve metabolic flexibility, which might include high-fat, low-carbohydrate eating, which might include intermittent fasting or narrow-window eating scheduling, which might include exogenous ketone supplementation, which might include certain pharmaceutical interventions, which might include caloric-restrictive patterns of eating. That being said is one of the things that I found with a diet that enhances metabolic flexibility as we've all gotten out of that in the last 150 years. We were all naturally meant to be these hybrid engines.

All of the muck that we've put into our machinery is too much burning of carbohydrates. When we talk low-carb eating, that was actually normal carb eating until about 1850, when we started to process sugar, flour and salt and started to put it in everything. We were all, in essence, low-carbers. This wasn't a fad. This was just the way it was. We've gotten to this place now where we put these sort of hats on. We create these dogmas. We create these kinds of dietary pissing contests. It gets really weird and skewed. But the reality is as I test and assess every patient, if I have a patient who's successfully eating a low-carbohydrate, vegan diet and their labs reflect that it's working for them, I'm not going to change it.

Or the same thing. If I have a person who's eating a carnivorous diet for, say, a terminal brain tumor, which in my mind always put me on edge, but their labs are saying it's working for them,

I'm not going to bug it. These are the biochemical individual things that I look at with my patients, including their epigenetic expression, which also shows who's going to have a certain response or lack of response to a certain way of eating.

But ultimately, what happens when we eat more in a metabolically flexible state or have ketones in our system at certain times, especially around our time of chemo, radiation, surgery, targeted therapies and hormone-blocking therapies, we enhance those therapies. It's like a Trojan horse. It's like somehow those ketones are like a Trojan horse that carry that toxic therapy right to its target. It gives some support to the healthier cells around it. I see it as a therapeutic tool. I never see it as a standalone by itself.

That, I think, is an important piece to put out there and to realize there are multiple ways to enhance these outcomes. But that's one of the most significant ways to hit multiple targets at once and really lower a lot of the side effects a lot of our patients are dealing with in these therapies. I'm sorry. There was one more follow-up question that you had.

JM: How you address the importance, especially if you're doing a surgical intervention and the patient should be in a fasted state, but it's contraindicated because they're severely underweight because of the cancer cachexia: What is the strategy in that type of individual? To me, you're between a rock and a hard place. What do you do?

NW: Well, I test, number one. Because being skinny will not kill you. Being cachectic can. You can't just look at someone and say you're cachectic or not. We do that. We do that when we start to see the weight come off on a scale and folks go in for their chemotherapy. Doctors freak out. Their team starts to tell them, "No matter what, don't lose more weight. Eat, eat, eat, eat, eat." Yet, cachexia is an inflammatory, cytokine-driven process. It's driven by sugar very much. It's inflammation and metabolic imbalance.

The worst thing you can ever give a patient with cachexia is Boost, Ensure or total parenteral nutrition (TPN). Actually, on many cancer wards, TPN is basically known as the beginning of the end. When you look at the first ingredients of all of those things I talked about, it's highly synthetic, highly toxic, four different types of sugars, most of them very synthetic – corn syrups and gluten and all types of things that kick up that inflammatory process even more.

JM: Excuse me. But those who don't know what TPN is, it's total parenteral nutrition, which is IV therapy. It sometimes has to be done if the people can't eat by mouth for whatever reason.

NW: Yeah. Here's where we actually assess in my clinical experience to see if somebody's actually truly in cachexia. That's with a metabolic panel. We look at protein, creatinine, calcium and albumin. Specifically, if protein is under 7 and albumin is under 4, then we know the patient is slipping into sarcopenia and to metabolic wasting, into this process of cachexia. You can see that in morbidly obese patients. You can see that in patients who, by all visual standards, are on the scale of totally normal. This is not something that you can eyeball clinically. It has to be tested.

You can even do body fat impedance testing, because body mass indices (BMIs) are BS, OK? We don't ever even – If you're still looking at those, throw that out. But body fat impedance and these

blood tests are very simple ways to know. So I've really taught my patients, their families and their medical team that –

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JM: Interesting.

NW: Yeah. I teach them like, "If you have a patient who is very skinny," – Let's go back and think about the time we learned about the concept of cachexia the most was after World War II, when the soldiers came in and liberated the concentration camps. You have all these people who were severely, severely malnourished. Many of them survived simply because of ketones, okay? Some of them, however, flipped over into a state of cachexia – sarcopenia and absolute metabolic wasting that was breaking down as quickly as possible. These well-meaning soldiers coming in to liberate them gave them candy bars.

JM: Worst thing they could do.

NW: Exactly. All these people who – I always want to cry when I think about this. Thousands of liberated prisoners died from something known as "refeeding syndrome," which is when you take somebody who's in a metabolic wasting state – sarcopenic, cachectic state – and you suddenly, after they have not eaten something for a while, give them sugar, they will die. That's a thing.

Have your listeners go and Google refeeding syndrome. We were not taught about this in medical school. But when you start to look, it's a very dangerous medical condition that can shut the organs down very, very, very quickly. We see this a lot in cancer wings around the world. My patients, interestingly enough, patients who have come out of cachexia the best were those who we were able to safely fast or safely kick them into ketosis, whether it was exogenous ketones, or start to slowly increase their fat intake to what was tolerated, because the nature of cachexia is an absolute loss of hunger.

Thanks to things today, such as medical marijuana, we can often restart their endocannabinoid system and re-up their ability to have hunger and kick in that part of the brain that has been shut down with a state of cachexia and actually stabilize them and then reverse it. This is a condition that is not reversible by Western standards.

JM: That is very interesting. I've recently encountered information too that suggest there's a pretty strong correlation between total protein levels and albumin and mortality.

NW: Yes.

JM: The lower those go, the higher your risk of dying prematurely. That's another good indication. I'm wondering if you find a patient in that condition – and maybe if you can tell me the optimal levels. You said below 7 or below 4, I think. But I mean, what's the optimum level? And then would it be reasonable to put a patient on a carnivore diet, which would be absolutely zero-carbs, significant amount of meat, probably some collagen or glycine to offset the methionine-to-glycine ratio. And then that would put them in ketosis, because there are no carbs, even though they have protein.

NW: Right.

JM: Is that a strategy you'd considered or toyed with?

NW: Yeah. For cachexia, you can get away with that for sure, a period of time. Because you will definitely have some gluconeogenesis and some mTOR. That short period destabilized the bottom falling out.

JM: With a restricted eating window, like six to eight hours, so that you are resting your mTOR.

NW: Yes. Exactly. That has been a strategy we have used successfully. We've also been able to successfully use total parenteral high-fat and feeding tube fats as well. We've been able to basically – in clinical situations – make our own feeding-tube foods.

JM: You just give them intravenous (IV) coconut oil, right?

NW: Basically kind of. I mean not IV, but you can do it through feeding tubes.

JM: Yeah. Feeding tubes. Sure.

NW: But you can do some really amazing amino acid IV therapies that can stabilize folks. Especially, like, that albumin piece is quite powerful. You can get them some IV albumin, which is so weird that we really fight against this.

JM: What are the ideal levels for the protein and the albumin?

NW: You'd want protein and albumin. Protein above 7 and albumin above 4. If one of them dropped, I'm not worried. But if both of them dropped, that is definitive in my mind that we're starting to switch into muscle wasting. Now when I see that, I start testing the patient weekly on their chem panel until that stabilizes. We can usually turn it around within 10 days to two weeks.

JM: Interesting, interesting. How long does it take to level out to the ideal levels?

NW: Within that two-week window, typically.

JM: In two weeks, you can get them to 7 and above 4. Wow. That is fantastic.

NW: If there's a lot of ascites, so there's a lot of fluid buildup on board, we might have to do some other strategies around it. That if I'm lucky enough to get them away from their well-meaning registered dietician and their overly worried family members and help them understand the process, then we have success. But oftentimes, that nature of watching your loved one whittle away is very terrifying. Our desire to just feed them whatever it is they want to eat overwhelms us. But it's like you wouldn't feed a diabetic who's dying of organ failure from diabetes. You wouldn't start feeding them Dunkin' Donuts.

JM: Well, some hospitals might. Some hospitals may in fact do. They may do that.

NW: You're right. Unfortunately. But thinking, this where Jess and I – in our new book that's coming out, we're going to have an entire chapter on this topic, because we allude to it in our book. But it's probably the most challenging discussion when it comes to cancer and nutrition that there is and a very focused part of the education of the ONI, of the Oncology Nutrition Institute.

JM: Absolutely. Yeah. For the cancer cachexia, do you have any recommendations for grams per kilogram or protein. Does it go up instead of 1 gram, it might go up to 1 gram and a half or 2 grams per kilogram?

NW: That's exactly it. I'm trying to keep patients between 0.8 and 1 grams per kilogram in cancer patients normally.

JM: Normally. Right.

NW: But when cachexia hits, we start to go up by a couple of tens of a point every few days. We might go 1.2 grams, 1.5, 1.8 or 2 max. I don't go above 2.

JM: You don't go above 2. Okay.

NW: We don't need to.

JM: Okay.

NW: Right? That's what's pretty interesting. I'm really pleased that you brought this into the discussion. Because it is, probably to me, the saddest part of my work is to watch people unnecessarily succumb to cachexia and not cancer.

JM: That's a reality. I mean people die from this every day.

NW: About 40%. Yeah.

JM: Yeah. Alright. Well, that is really valuable insights. I really appreciate that. Because to me, that's one of the biggest dilemmas.

NW: Agreed.

JM: There are very few people who understand it at your level. It requires a foundational comprehensive understanding of nutrition, which very few clinicians have. And then being on the trenches and treat tens of thousands of patients. It's not many people who have that combination. You're certainly one of them. Thank you for that feedback.

NW: Yeah.

JM: What has been the resistance in your recommendation of this modulated or moderated radiotherapy and chemotherapy? What percentage of the clinicians who the patients are consulting with will accept these modifications? Do you have any specific strategies to help the patient convince their clinician, or perhaps even recommend to find an alternative clinician who's more open to integrating these recommendations?

NW: Absolutely. You know, a few years ago, I would not have even had an opportunity to sit down with a general family practitioner and have this conversation. And yet, today, every week I'm speaking with conventional oncologists all over the world that are being, frankly, kind of pushed, coerced or forced by their patients to have a consultation with me on their behalf. At first, they're a bit resistant, until they realize that I'm simply trying to enhance their outcomes. That I'm not trying to do an either/or. I'm trying to help them understand that the tools in their toolbox can be used differently and can be used a bit more effectively and even more safely.

It's taken things like some of these tumor cell assays and blood cell assays, like Biocept, Guardant360 or FoundationOne, to help them start to have a common language to understand that there are more targets to address than simple standard of care chemotherapy radiation or surgery. That's been exciting of this sort of era of precision medicine. [It] has really changed the conversation. We're all more in-dialogue versus an either/or process.

That's number one. Number two, the limiting factor, for instance I have a doctor I speak with a lot from University of California San Francisco (UCSF), very up in the field of this. The problem is, ironically, if he recommended metronomic, which is the lower fractionated dosing of chemotherapy, to his patients, it would not be covered by insurance.

JM: Right. Even though the cost is less.

NW: How insane is that? That is considered off-label drug use or out-of-the-box use. It is not considered standard of care, therefore it is not covered by insurance. Unfortunately where we are in this moment, which I am on a mission to change, is that you will likely have to track down people out of network out of pocket to get the proper treatment, to actually test, assess and address your cancer to your biochemically unique self to have a good outcome. That sucks, but that's just the way it is right now.

JM: Alright. That's a great answer. I wasn't expecting that.

NW: Sorry. It's a bit sad, but true.

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JM: No. But it's the reality, the truth. I thank you for making such progress in the field and helping change the behavior of many of these oncologists. Hopefully when they see the results, which is a long-term play, they'll become more intrigued and hopefully integrate this into their regular practice and not as they require you.

But the process of you describing that highlights the next question, which is how you operate as a clinician. Initially, you were seeing patients yourself, but you've abandoned that model because

it's just not scalable and you can't help as many people as you need to. You're only really – at this point – consulting with clinicians, like the oncologists or what would probably be the most common, I would imagine. But maybe their family physician or generalist who is administering the therapy to integrate these. Can you describe how your practice has morphed and what the current format is and that if someone was interested, who is challenged with this diagnosis and either them or their family members, how they would seek guidance from your practice?

NW: Perfect. Well, first of all, for years, I had a family practice here in the Four Corners region of the United States, kind of far away from everyone. A little bit cowboy-ish where I lived. As a naturopathic that time in an unlicensed state, we basically had to create relationships with our local physicians to be able to practice safely and effectively.

Over time, I built up a reputation among my colleagues to the point where they came to see me themselves or refer their own family members or their own patients over to us. I started to realize that as a naturopathic physician, I offered tools that they couldn't in their conventional, standard-of-care practice. That was just the building of relationships. That's where it started. Over time, that evolved where – Because of my own personal success with my own terminal cancer diagnosis, people started to pay attention as I started to see other patients who were given death sentences and were able to far outlive their expiration date or go into remission or have an incredibly robust maintenance disease process that they're still thriving today. It just kind of creeped out word by mouth.

I had an opportunity to speak at an Ovarian Cancer Summit in 2012 that literally changed the trajectory of my life. Because that's a small group of women – about 24,000 women a year diagnosed with ovarian cancer and over 17,000 women a year dying of ovarian cancer. This is a small group of women who feel very abandoned by their medical institutions who are desperate to look for things, to keep themselves on this planet for as long and healthfully as possible.

Because of that, that's a small group. They talk to each other worldwide. They started coming from all over the world to my tiny little clinic, like trains, planes and automobiles, to get down here to Durango, Colorado. Quickly, that became unscalable and overwhelming. Then I started hosting cancer retreats where I would basically do these deep, four-day immersions to basically teach them everything I could about their own terrain, about how to test, assess and address their own labs, about some of the vetted therapies that might be appropriate for them. And then send them back into their communities and hope that someone would help them implement this. That was hugely successful. In fact, that's what became the base for the book, "The Metabolic Approach to Cancer: Integrating Deep Nutrition, the Ketogenic Diet and Nontoxic Bio-Individualized Therapies", which is my book that came out in May of 2017, which outlines this process very specifically.

But even then, that became non-scalable and overwhelming. What has happened in the last few years, when I left private practice and just started consulting, is that the bottleneck has always been the physician, whether you're a naturopathic doctor, whether you're an M.D., a D.O., whether you're a specialized trained oncologist, they would get these very extensive reports or lab requests or even lab results and simply go, "I don't know what to do with this," or simply say, "I'm not going to do anything with this," which is unfortunate.

Seeing and hearing that over and over again made me realize that we have about 50% of the population will have cancer in their lifetime in the United States. We need to get physicians, boots on the ground, to be able to help change the outcomes.

That's where I've been putting my energy in. Today, whether physicians have heard me speak on podcasts or at medical conferences or patients have historically worked with me or heard about me through other patient forums – Social media today can be a gift and a curse, but it's ultimately a lifeline for many folks going through this process.

But now they're going in and requesting their physicians to have a consultation with me on their behalf. For me to step in and take that bird's-eye view and help the doctor see what I'm seeing and help them understand the strategy of testing, assessing and adjusting the treatment along the way and helping them sort of filter through the riffraff of all the misinformation and bad information that's out there for both practitioners and patients alike, because of my 25+ years travelling all over the world, keeping my own butt alive all these years and tens of thousands of other patients,

I think that it's becoming a pretty cool, accessible, appreciated strategy among my colleagues. It's a lot of fun to see lightbulbs go off and to see them put together all the pieces of their life and education, coming together at once to realize they actually do know this stuff. They just have never quite forayed it or put it together in this way that can really change how their patients are being managed.

JM: Yes, indeed. I was intrigued at the consultation that I sat in on of the additional testing that is offered that is really specific for the diagnosis. That's something that you do in these individual consults. Because obviously, there's a five basic test, which is such a valuable tool that no one has to see you for that. I mean you could just go and do some mantras themselves. You've told us what the tests are and you've given us the optimal ranges. That's something that should be done by virtually everyone.

But in addition to that, there are other specific tests that can be very useful in monitoring. That's another strategy and a benefit from having a consultation. It's to have these other tools and other specific interventions that can be utilized, depending on their circumstances. It's an individualized, customized approach. It's not a cookie-cutter process.

NW: No. Because you could have – Like for instance, the person we had our consult with was someone who has a superficial squamous cell carcinoma of the skin. Now, squamous cell carcinomas, people don't typically die of these, but they can start to get on the move and they can become a bit necrotic and create secondary infections and, over time, metastasize and cause problems. But ultimately, we aren't afraid of those types of cancers. However, they're a clue. They're a clue on imbalance in the system.

As I was telling you in sharing with the other doctor on that call, squamous cell is an example of a type of cancer that is very much a viral process. Again, as we were alluding to earlier, when you treat a squamous cell lung carcinoma or a rectal carcinoma or cervical carcinoma or skin carcinoma, with chemo and radiation, you are frankly going to upset the immune system so much more that that viral pattern will simply pick up momentum and really go bonkers. That's what we

see often with all those cancer types I just described – They have a very aggressive recurrence and progression rates. Because they're not being treated properly. They're not being looked at and assessed properly, and that's a big one.

JM: Interesting too, the patient who we were consulting with was a long-time follower of mine. And was living in extraordinarily healthy lifestyle. It's a surprise to her that she came down with this diagnosis. It's always, from my perspective, useful to take a problem or a complication in life as a really – and to embrace it as something really great and take a pronoiac effect. Because you know it's good for you. Ultimately, it's going to change things.

In her case, I think it will because it's identifying variables or factors in her life that contribute to this. Once they're addressed, they will not only treat that specific problem, but also help a lot of other pathways and variables that will prolong the life and make living a longer and healthier life possible.

NW: Absolutely. You know, it's funny how many people have said to me – As we started at the beginning of the conversation today about how many people said, "Well, I was healthy until I got cancer." After I worked with people for a while, suddenly they'll say, "I'm healthier than I've ever been with cancer."

JM: Yeah.

NW: What a difference. What a total, total shift.

JM: Even in your own circumstance too, I'm sure, being a naturopathic physician and going through the whole process. I mean pretty much all the M.D.s or students are committed to living a healthy lifestyle. It doesn't mean they're healthy, but they're committed to it. They just maybe not understand what it takes to implement it for them personally.

NW: And it's interesting. Another opportunity that speaks to this is I have a lot of patients who are all very savvy, faithful Mercola followers and people very much like the client we just consulted on. They've done all the right stuff. They've gone to cancer centers in Mexico or Germany. They've spent a fortune or maybe their life savings – 70,000, 80,000, 120,000 dollars.

I'll sit in front of them and I'll take that bird's-eye view to their history, to their chronology, to their terrain, to their labs, especially if I had some old labs and new labs and information, as well as adding in the new labs that need to come in. We realize very quickly that they might have gone to the best doctor at the best clinic and have the best treatments that they want, the best choices for that person at that time. I see that over and over again.

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I always encourage people, "Take a breath. Dive deep into your terrain. Really understand what's making it tick right now before you choose any intervention. And then you will likely not have to see me again because you won't likely be that 70% recurrence rate that the American Cancer Society says – 'All patients who's had this diagnosis will have 70% of the time.'" That's the place

where I'm trying to help people understand that just take a moment and reframe and get clear on what is specifically right for you.

JM: Alright. Many, many people need this type of service. If someone watching this personally would benefit from it or has a relative who would, friend or loved one, how do they engage your services or have their clinician engage their services more specifically?

NW: Well, it's very simple actually. You just go to my website, DrNasha.com, D-R-N-A-S-H-A dot com. Scroll all the way to the bottom if you don't want to read a little bit of the background of who I am and what I do. But when you get to the bottom, you'll see a handy dandy section that's just like a patient resource section that has lots of great free tools. In fact, when you're on the website for a few minutes, a freebie pops up on the five steps of what to do when you're diagnosed with cancer, whether that's the first time or a second or a third round. Please download that. Please read it and share it. It gives a lot of the information that we just shared on this discussion today.

The next piece though is that if you do find that this resonates with you, whether you're a clinician or a patient or a loved one of a patient going through this. Go to the doctor section. There's a doctor resource. Doctors can just do this online. Just sign up for a consultation with me. It breaks down exactly what's required, those five labs we discussed. Any other relevant data, testing, imaging, anything, I would get it all. The more the merrier, right? Also, requesting the patient to basically create a chronology, significant events of their life that led to that diagnosis or why their physician might be consulting with me.

And even another additional piece is that they could take the little questionnaire, the 10-part questionnaire at the front of my book, so the patient already has their own understanding of what might be the priority in their terrain of where to focus first. That is something else that kind of elucidates for them before they even have the follow-up conversation with their physician of what we discussed. The patient prior already has a good idea of what's out of sync for them and where they need to begin.

But that is something that I'm having an amazing ability to connect with so many physicians worldwide to watch this change not just the patient they're working with directly, but to watch it impact their entire practice. Because this conversation we have is not just specific to that patient. I mean, it is. But it's going to apply like – Suddenly they realize, "Well, I've got six people with a similar pattern." It starts to play out for the doctor to understand they need to be thinking of every single one of their patients in this way. And then the doctor goes back to the patient and basically reports what we taught. Hopefully – knock on wood – the feedback I'm getting is they are following through with the types of testing and recommendations that we cover in that consultation.

JM: If they're not following through or for whatever reason their current existing clinician or consultant refuses to consider this as an option, do you have an opportunity for a patient to go to your site and ask for help in finding a local physician to them who you know would be receptive to this approach?

NW: Absolutely. We absolutely do. Hopefully by year's end, I have a four-month physician intensive training getting ready to start up of basically – more like a mentorship of people who I have already been doing this process with, a few doctors who have worked with me closely over several years who want to take this further and want to basically become a resource for patients where they can be available to them virtually. That is something that is coming together. We're already happy to make some recommendations if someone does have a doctor who's resistant to having this consult. There are definitely some folks who have already worked virtually who we can connect you with in order to have this consultation on your behalf.

JM: That's absolutely terrific. Because if it didn't exist, then we certainly need it to. I want to thank you for creating this resource and really providing a rational strategy as an alternative to what this devastating diagnosis could be. As a result of the diagnosis, many people rush into a form of treatment prematurely without the wisdom and wind up generating loads of expenses and harming themselves, more importantly. The finances can be recovered typically, but your health cannot be.

Even if you don't do anything with your consultations, it's crazy not to get it first. It's relatively inexpensive. At least you have a firm base understanding of how it's going to work. You've given us the tools or the markers to identify and follow whatever program you follow to see if it's going to work. I think it's a great strategy. I think it's somewhat irrational and perhaps foolish not to integrate it into whatever program you choose. It's certainly wise to put it up into the consideration. I thank you for making it available for everyone and all the work that you've done and will be doing.

NW: Thank you. I really appreciate it. It's interesting to make this change because I loved working one-on-one with clients. But I know it's not sustainable. I know more and more people are needing this help. I'm having – This is relatively new to me, to be really focusing entirely on the physician. I have to say, I am really pleased to see the receptivity. Like I said, some of the conversations will start out a bit like, "Hmm," the person on the other end of the phone, by the end of the hour, they're basically like, "Can I do this to other patients? Can I do this for myself?"

It's so gratifying to see people waking up and realizing that I'm not a charlatan. I'm not getting anything. I'm having a conversation with your doctor for an hour on your behalf after looking through your records. I'm not getting paid to like do your treatments. It's very much a conversation of helping reframe the thinking and the approach that we take in medicine and in oncology in particular.

JM: Yeah. That's a good point that you've identified. You don't have a conflict of interest, unlike most oncologists. Because it's my understanding that – We didn't touch on this, but I think it needs to be mentioned that it is the only specialty in medicine that is legally allowed to sell their therapy. Their therapy is, without any question or doubt, literally the most expensive therapies in medicine, typically costing six and sometimes even seven figures. They get a significant percentage of that. Talk about conflict of interest. I mean their incentive is to sell you an expensive therapy because they're going to financially benefit from it. Now it may be subconscious, but it doesn't matter. It's still there. It is there. You've got to know that going into this. The oncologist is financially benefiting from chemotherapy, which is very expensive.

NW: Or simply – because I've had some really nice conversations with a lot of oncologists – they are so boxed in on what they can and what they can't do and say. I mean truly, they are imprisoned by their medical system in many cases of some of the folks I talked to, that I see them get this glimmer of hope, understanding and awareness. I've seen a few of them really go to bat for and out of the cave for their patients and get certain testing done and lowered doses of their treatments done. It's been incredible to witness that they are making ripples within their own profession.

JM: I'm glad to see you've catalyzed that change because we certainly need it. More importantly, I'm sure you've identified who these oncologists are, so that's another benefit of consulting with you, because you know who these open-minded, truly well-intentioned clinicians are who have somehow been able to isolate themselves from the obvious conflict of interest and are able to provide the best therapy for their patients. You know who the winners are and it's great. That's a benefit you get from consulting with you. To me, it's a win-win situation. You may have to fly. They may not be in your local community, but drive a few hours. I mean your life's at stake here.

NW: Absolutely. Most people will have to travel outside of their communities, at least initially, to establish that first contact in some situations. But for how things are right now in the world, that's a must to have, especially if you're a Stage 3 or 4 patient or a patient who's had a recurrence or multiple failed responses to therapies. You must start to get out of that sandbox and venture into a new one.

JM: Okay. The name of your book again? So people can pick that up too?

NW: Yeah. "The Metabolic Approach to Cancer Integrating Deep Nutrition, the Ketogenic Diet and Nontoxic Bio-Individualized Therapies," which is co-authored with my colleague and amazing – You've met Jess Higgins Kelley as well. But she is also – Just a fun aside there, Jess also just got accredited for the first and only post-graduate-level certification in cancer nutrition out there. It's like a post-graduate certification for clinicians and nutritionists, certified nutritionists, to get a focused oncology nutrition training, because that is another area that is sorely lacking, so really training into that population metabolic approach, which is key.

We also have a book coming out next year on very specific diets, dietary therapeutic interventions for very particular oncology situations, and also a book next year on mistletoe that will be coming out. I know we didn't get to talk much about it, but there's a lot of interesting things when we look at vetted therapies that could be very supportive for this patient population. I just want your folks to be hearing these ideas, let them bubble in their brain, so when they hear and see them in the next year or so, they'll be ready to learn more.

JM: Thank you so much for taking some time with us and really enlightening us on some of the foundational principles and some incredible tips that each and every one of us can benefit from because it's a challenge. It's a modern-day challenge that we're virtually all exposed to in some way, shape or form.

NW: Thank you for having me. It's a lot of pleasure.

[END]