The Health Edge

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Cancer and Lifestyle

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| Speaker 1: | Welcome to The Health Edge, translating the science of self-care. I am Mark Pettis and I’m joined by my friend, colleague, John [Bagnulo 00:00:29]. John, good morning buddy. Good to see you. |
| Speaker 2: | Good morning, Mark. It's great to see you as well. |
| Speaker 1: | We were talking recently John aboutcancer, this topic of cancer which conjures up so much incredible fear and something I know that you have been dealing with in your family and with your son Mack. There is more and more evidence John that lifestyle for so many can contribute to one’s risk of cancer and also can impact significantly one’s response to treatment and how that cancer ultimately does once it emerges. |
|  | I think the science continues to evolve and like so much of what we talk about, genetics clearly has a very important role and for some cancers, perhaps more than others and yet lifestyle, we know, can significantly impact how the genetic risk manifests and ultimately how things how things play out. So it’s a pretty much topic but one that I think has a great deal of relevance from a self-care perspective. |
| Speaker 2: | Yeah… Really it’s an incredibly complex topic of course. I think more often than not, Mark, I think people have generalizations that they make in cancer, not only just your average person that’s interested in being healthy and reducing the risk for cancer but even a lot of health professionals and clinicians will have pretty strong, I guess, feelings or ideas about what cancer is and it's been a real awakening for me what we’ve gone through with Mack these last couple years because as you know, there's just so many different moieties of cancer and different factors that can contribute to the development of different types of cancer. |
|  | There are certainly numerous cases that are predominantly genetic in then, there's more and evidence that some cancers, especially brain tumors for instance, can be more of a mitochondria-based disease where the mitochondria basically just start to really become dysfunctional for one reason or another and that as you know, Mark, it’s really interesting because that really lends itself to different types of metabolic therapies. It's really amazing. |
|  | It has been an incredible journey and I think that the writing on the wall was that nutrition is going to play even greater role here in the decades to come. |
| Speaker 1: | Yeah, and I think what many people may not realize, John, is that cancer cells, cells that become rogue that lose their way, lose their what researchers would call "capacity to differentiate" so as cells become more specialized whether that’s a colon cell or brain cell, or a kidney cell that ... Cells are programmed to mature in ways that allow this differentiation to occur and when you look at the number of cells in the human body, 10 trillion plus, it’s readily acknowledge that rogue cells not infrequently emerge so people may not realize that cancer cells often emerge, remain under the radar screen. |
|  | Our bodies really have this incredible innate sense of recognizing something that’s not going right and taking care of it before it turns into something that ultimately we experience as a diagnosis. One interesting aspect of the epidemiology of cancer, when I think about it John, is that cancers A) are much more prevalent. Same with all chronic diseases. |
|  | To my knowledge, despite the sophistication of cancer treatment, molecular treatment, biological treatments and so much more is understood about the genetics and mutations and even now the epigenetics of cancer and responses to treatment, without question, have gotten much better. In some respects, I think cancer has become more of a chronic disease. People do live much longer with it but at the same time, the sophistication around cancer, understanding and treatment really has not done much to alter the prevalence which continues to go up. |
|  | The only exceptions I’m aware of are instances where we have developed capacity to screen and pick up pre-cancers, so colonoscopy is an example, picking up what we might call an adenoma, something that’s precancerous, you remove it and the likelihood of anything progressing to cancer goes down dramatically. Colonoscopy is one example of screening that can pick up precancerous lesions. The other would be Pap smears, which of course have been around a long time and we know that the HPV virus is an example of a viral-induced malignancy with Pap smears can be picked up in these precancerous forms and ultimately dealt with. |
|  | Outside of those categories, John, at least to my thinking, most cancers there still is not a lot of focus on prevention and cancer prevalence continues to go up and so we know that lifestyle and environment and the environmental conditions of the cells in the body are increasingly likely to interfere with the mechanisms that have evolved that recognize these rogue cells and manage them. Really, a lot has to happen for rogue cell to ultimately succeed and it’s happening often so it really does beg for environmental and lifestyle and environmental toxin considerations as the major drivers that probably do take people that may have a genetic predisposition. |
|  | I think to the very interesting point that you raised John that this is probably much more than genetics, and even though that’s where 90% of the focus of research and many treatments are at, the mitochondria and other aspects of cell function may have just as important or maybe even more important role and those do lend themselves to potential nutritional and other lifestyle interventions. |
|  | I do think that lends ... Though it shifted significantly, still very much looks at this as a genetic issue, a bomb that drops out of nowhere and it’s kind of a roll of the dice and yet from what we know of all the epidemiology and the many fields of research here is it’s much more nuanced and complicated than that. |
| Speaker 2: | Yeah. Yeah, it is interesting that so much of the research and even treatment interventions are all focused around genetics when there's some really, really great beacons of light or hope coming from the other areas. |
|  | In our experience both here in the United States as well as in Europe I think really shed light on this potential because most people aren't aware of this Mark, and your point is right on that cancer is an ongoing process in all of us. Cancer cells are always being initialized and certainly there's some pretty good evidence by epidemiologist that the older we get then the greater this level of cancer initialization which is where you have a cell that goes rogue that has on some kind of aberration and it's metabolism or it’s genetic transcription. There’s an error. |
|  | The body is amazing at keeping up with the development of these rogue cells. In the immune system, it needs several things to be able to properly identify them. We also need to have a limited fuel supply so that these rogue cells don’t continue to grow and to have the ability to spread, so there's all these different layers to it. |
|  | What I've learned in the last couple years is that there are tests that for whatever reason are not maybe being used here in the United States at the time and place that we'd expect them to be that are being used in Germany and in the Netherlands and in areas of Europe. |
|  | In the case of our son, it was really interesting. They took cells from our son’s brain tumor that were circulating throughout his body and they ran those cells with very unique testing in Germany and they found out what were the things that influenced the growth of those cells that inhibited those cells from going from a rogue cell in the blood or in this case being cultured. |
|  | It was really interesting because when we looked at how those cells responded to different types of both pharmaceutical as well as botanical extracts and substances, later on after we returned to the United States and this is months later when we had some testing done through foundation one which looks at very unique metabolic patterns in samples of the tumor. In this country, they tend not to. If someone has a brain tumor, they tend not to take cells from the blood. They rely very heavily on tumor samples which is really interesting because sometimes you can’t get tumor samples that are alive or that represent what’s going on. |
|  | It’s really interesting how you have this very, very significant dichotomy between what's practiced in areas of Europe and what's practiced here in the United States and I would say that in many cases what's going on here in the United States in the area of oncology is years behind what they’re doing in Germany and other places. |
|  | Where I'm going with this Mark is when you take a look at the way a cancer cell responds to different substances, it’s really interesting because some of these cancer cells are highly sensitive to extracts, botanicals as well as the Chemo agents that influence only one particular biochemical pathway that’s required for that cancer cell and it can completely shut it down if you have an idea, if you have an idea of what's going on through this type of testing, this cellular testing. |
|  | When I look at that, I think that there is hope. There really is hope. I just think it’s interesting that not as much testing is being done on cancer metabolism as is being done on genetics. Now we have immunotherapy as an intervention where a lot of different companies are trying to develop vaccines to cancer cells, helping the immune system recognize what’s on the surface of a cancer cell. |
|  | It's probably going to take a combination of approaches to really put a dent, a serious but put a serious dent in this, as you mention in this increase prevalence of cancer and it's not happening right now. We have all these different factions or belief systems within the field of oncology. Some people believe very strongly in a very traditional, conventional, chemotherapy and radiation and going that route and others are now much more interested in vaccine type therapies, immune therapies and then you have a very, very small percentage of I would say less than 1% of oncologist here in this country that believe an intervention can be metabolically ... Like a ketogenic diet which I’m and I know you are as well, Mark, a big fan of for a variety of reasons. |
|  | It might not be a one-size-fits-all. A ketogenic diet might not work for every type of cancer but at the very least it buys almost every cancer patient time. There’s some controversy as to how long will a ketogenic diet will that give the patient benefits. Will it be six months? Will it be a year? |
|  | But if you look at the work of people like Dominic D'Agostino in Florida, you look at Thomas Siegfried at Boston College and others, it’s really clear that cancer cells, almost all cancer cells are highly glycolytic, so they require an abundance of sugar for their rapid growth and development and if you shortchange a cancer cell that's highly glycolytic of sugar and carbohydrates, if you make those cancer cells have to operate on ketones, they don't grow as rapidly and you can in some cases, in some cases again it’s not a cure-all for all cancers but in some cases, no a ketogenic diet can really have a major impact on the outcome of a particular type of brain tumor. |
|  | Again the work of Dominic D’Agostino and Thomas Siegfried, if our listeners are not familiar with these two researchers, you can check out their YouTube videos, their talks that they have available. They certainly have some amazing results in animal studies and a handful of human anecdotal case studies where people have had glioblastoma’s and have gone on a ketogenic diet and have had remarkable results. Yeah, I think it's going to take a combination of approaches |
|  | That's what we’re doing with our son. We went to Europe for a very interesting type of macrophage activation protocol. He’s also on a ketogenic diet and he gets a significant number of botanicals that have known or well-established effectiveness against his particular type of biochemical aberration. |
|  | It's really complex., but you know what's great about it Mark is it shows, I think, it shows that there is going to be a way down the road when you start to look at the results that a lot of these different interventions are having, if you put a couple of them together, one plus one can equal five. It's really fascinating to say the least. |
| Speaker 1: | Such a remarkable [lengths 00:15:23] John through which you have experienced this and have, I know, long thought about this even before your son confronted a cancer diagnosis, but this lens of the metabolic environment that either increases what is unique about that cancer cell and what it requires metabolically breaking down and sort of perpetuating this I think is a very different lens than how conventional oncology looks at cancer. |
|  | This probably isn’t the best metaphor, John, but cancer ... if one thinks of cancer as like weeds growing in a garden, the current approach is to use Round-up. We use some pretty effective and toxic herbicides, if you will, in that example and we know that they can certainly powerfully impact cancer cells. They also impact normal human cells and there’s always some element of collateral damage and at the same time, true of all that we talk about in terms of chronic complex disease, the current approaches tend not to address in any meaningful way the metabolic environment from which these cancers may have emerged. |
|  | This might be a good segue, John, to look at what we know in terms of current research of some of those metabolic fault lines, fault lines that will sound very familiar to listeners of this podcast because they're fault lines for most chronic complex diseases and we know, John, that the epidemiology, much of the emphasis in terms of public health messaging around preventing cancer falls into a handful of categories, really important categories: smoking cessation’s- |
| Speaker 2: | Of course. |
| Speaker 1: | Tobacco, we know to be one of the most commonly accepted and understood environmental carcinogens that increases the risk of most cancers and that go well beyond just lung cancer, so certainly efforts there continue to be so important. Smoking rates have come down dramatically. |
|  | A generation ago about almost 40% of American's smoked and that’s been cut pretty much in half and of course many smokers now start at very young ages so that continues to be a very important lifestyle risk. Then there's a lot of epidemiology ... Again, I don’t think this will surprise anyone listening to this podcast, that people who don’t consume a lot of plant-based foods unprocessed plant-based foods, fruits and vegetables tend to be lumped together are at much greater risk and these are pretty strong correlations. |
|  | We know that weight and maybe more specifically, body composition- |
| Speaker 2: | Yeah, that's a huge one. |
| Speaker 1: | -with increased fat and visceral fat, abdominal fat does seem to have a very strong and very high correlation with particularly hormonal influence cancers like breast cancer, ovarian cancer, prostate cancer in men, colon cancer, so we know that any lifestyle strategy that promotes visceral fat will increase cancer risk and any lifestyle strategy that reduces or totally eliminates visceral fat, which is possible can dramatically reduce cancer risk. |
|  | This goes along with the metabolic fault lines of insulin resistance- |
| Speaker 2: | Inflammation- |
| Speaker 1: | -diabetes and inflammation and then sort of one last category that that maybe we can come back to, John, because I think you and I might have a bit of a different take on this is this sweeping condemnation of sun exposure and this notion that the sun is something to be feared, and the ultraviolet radiation from sun should be avoided at all cost as a is a significant risk factor for cancer, particularly skin cancer. |
|  | There's actually some evidence to suggest that ... this is a dose and it may be a timing effect and our public health message intended to reduce skin cancer may actually be promoting other cancers because people simply are not getting enough full-spectrum light and the vitamin D and the inflammation and insulin resistance that may be impacted by that, John. That’s a bit of a long-winded way of saying, this is ... these I think the metabolic fault lines of inflammation and insulin resistance are important metabolic landscapes. |
|  | Vitamin D we would add to that and there are many others, but this is where I find a major opportunity to help people connect, how lifestyle influence those metabolic landscapes and how ultimately they can more consciously manage those metabolic landscapes in a way that will have impacts that really are they thinking about, like reducing breast cancer risk, ovarian cancer. That’s where I think the research is evolving yet very much outside of mainstream thinking. |
| Speaker 2: | Yeah that was great. I think you covered what I consider to be the foundations or points of the foundation that are really weakest for most of the American population. If you have low levels of vitamin D then macrophages and for listeners that maybe aren't familiar with this, our immune system and the cells that make up our immune system, of course, have these receptors on the surface of their cells and these cells need to be more vigilant. They need to be aware. They need to have a better radar, so to speak, for cancer cells. |
|  | Vitamin D has been shown to make macrophages better at identifying cancerous cells. So if you have low levels of vitamin D, you tend centuries that are out there that are sleep at the wheel and are not really as good at picking up cancer cells. I look at vitamin D, Mark, absolutely as being an enormous component of this and I would say that if you take a look as you describe and you take a look at the last several decades, and you look at how vitamin D levels have continuously with the public health campaign to keep the people out of the sun, it's juxtaposition. |
|  | These are basically inverse relationships. You have less sun exposure, you have higher prevalence of most forms of cancer and really take a look at things biochemically. It’s not just the fact that vitamin D keeps macrophages more vigilant. It’s also the fact that vitamin D is a known inhibitor of numerous pathways that drive cancer cells. A lot of them are like NFKB, nuclear factor kappa beta. Some of these pathways are driven by that. |
|  | [NTOR 00:23:00] pathway is another really important pathway for many cancer metabolisms. You have so many of these biochemical pathways that have several points within their cascade of events that vitamin D has the ability to interfere with, slow down or stop and so I think that’s critical. I think anybody with cancer should be at the very least, given a large dose of vitamin D initially to really try to slow things down or should be encouraged to get out in the sun as often as possible. It’s incredible. |
|  | I just am amazed at how at today’s date and time, we don’t have a greater emphasis on this in the field of oncology. I think it’s one of the most sorely missing components to treatment. Then as you mentioned when you have a high BMI, body mass index and have more fat you have greater aromatase activity in both men and women. Most people aren't aware of this but in a lot of women for instance, who are diagnosed with estrogen positive breast cancer and have high BMIs are never told that they need to lose weight as you as you mentioned because when you drop body weight, you drop that aromatase activity down and that's going to significantly help women who have estrogen positive breast cancer. |
|  | No emphasis is in place to date on losing body mass index to drop weight. That's another thing I just can’t understand. So many people who are diagnosed with cancer are told to eat whatever they can to keep their weight on as the oncologist advises a man or woman to try to really maintain a high BMI because as they go through chemotherapy, they go through treatment, they're going to lose weight. I think that's really throwing fuel on the fire, telling people to eat whatever they want so keep weight on because while it's important to not get into [inaudible 00:24:46] here and have a significant drop in muscle mass, the last thing someone wants to do with cancer is to ratchet up their body mass index. |
|  | All you’re doing is creating greater substrate fuel sources for the developing or growing cancer. As you mentioned, secondary to that body mass you have insulin resistance and insulin is also in many cases a rate limiting factor for some of those biochemical pathways that we talk about. If you have lower levels of insulin because you’re on a lower carbohydrate density diet, if you're really starting to make a shift away from carbohydrates, especially the refined kinds and those which are associated with the most dense sources of carbohydrates, then insulin levels come down. |
|  | When insulin comes down, [IGF1 00:25:28] can come down and all these other inputs to those biochemical pathways so it just makes sense for people to try to get to a healthier weight, get outside in the sun without sunscreen or sunblock. If they can't do that, then take a vitamin D supplement. It may not be as ideal as the sulfated form of vitamin D which we know has the greatest interface with cancer and the greatest ability to help us in that area but even without sulfated vitamin D, there's pretty good evidence that cranking up our vitamin D levels is going to be at least modestly or in some cases greatly beneficial, even though it’s not the sulfated form. |
|  | There's all these different aspects to it, but as you mentioned Mark, in this country it’s like what can we do to cut, radiate, poison cells and unfortunately there’s a lot of friendly cells that are casualties in those processes. In some cases it does so much damage to the healthy cells that your analogy with the garden, you never get a healthy garden to come back. You might kill the weeds but you burned out everything else and you're got bare soil that can’t really support the kind of life that we need. |
|  | It's a complicated and it's a very scary topic for many individuals. It’s frightening when people hear the word "cancer." I am very apathetic where people are coming from. I understand why they take that kind of one single approach that’s all based on some kind of very very intense, potentially damaging process like in the way chemotherapy, but I think people need to understand that it isn't going to be just one road to Rome. You’re going to have to really, I think to make an effective run with cancer, to really turn up your chances, you've got to apply pressure on it from a lot of different areas. |
|  | I think metabolically, it makes sense because it doesn’t just give us anticancer effects. It makes people healthier overall and I think that's what we've got to look at this as is how do you become healthier overall? You don't look at this as "Well, let's get rid of the cancer and cut off our arm in the process." Let's support our body's immune system and at the same time become less insulin resistant and have better overall cardiovascular health. |
|  | It’s really a multi-pronged approach. I think it's gaining traction. I don’t know if you'd agree with that Mark but I think there's more and more, certainly Americans that I talk with and I may be getting a very biased population in who I have these discussions with but I meet more and more people who are really intrigued by the potential to ketogenic diet or maybe using very large doses of turmeric, or cumin. It's interesting. We're at a very interesting time right now in medicine. |
|  | As you know, there's this is this influx of so much of this integrative component with a very traditional, conventional approach. I try to be hopeful, Mark, that we're going to gain some ground here in this area of medicine. |
| Speaker 1: | You touch on so many profound points, John. I do think the pendulum is swinging. The integrative strategies to care are definitely on the upswing everywhere and I think there's still a huge gap, at least in my experience in what an integrative model truly looks like and how it is how it is operationalized. |
|  | This whole notion of cancer as a chronic disease, John, I do think is an important shift in how we think about, what some might refer to as "survivorship." Anyone who’s experienced a cancer diagnosis or as a loved one or been a caregiver can appreciate that the chemo, worthy as it may be, the surgical oncology, critical as it may be, the radiation critical as it may be are ultimately limited parts of this broader mosaic that you just so beautifully touched on where ultimately what people need is any strategy they can get to reduce these inflammatory pathways. |
|  | This is where mind-body techniques become really important, where connection with other people, group support and sort of loving connection become such an important dimension. You touched on so many dietary issues, John, of avoiding these carbohydrate-dense foods and processed foods and sources of environmental toxins whether it’s in our food supply, or our cosmetics or the things that we use to clean our homes with, whether it’s maybe an awareness of mold in one’s environment at home or at work. |
|  | While that may not intuitively connect one to a cancer concern, what we’re suggesting is that anything in one’s environment that impacts lifestyle that can promote inflammation or body fat or insulin resistance really should be an explicit target of how one navigates cancer management. I do think the pendulum still has a bit of a way to go before the survivorship and truly holistic programs gain more traction but it’s definitely happening. |
|  | I think because cancer does get so much ... There's a certain emotional spin to cancer and you know this John, you're just on this journey that it does get the attention. People are just really interested in it and are fearful of it and concerned about it. I think it does tend to draw attention that way in the research community and in the clinical community. |
|  | What we’re talking about really I think can be profoundly empowering and helpful. The other dimensions of this John, as we sort of bring this to summary is we know that plant-based foods and things that you often talk about, these phytonutrients and you mentioned [sir 00:32:06] cumin and turmeric have powerful anti-inflammatory and epigenetic and antioxidant capacities, so things that the body would need more of in order to neutralize a rogue cell are just naturally packaged in those foods and whether the mechanisms are genetic or epigenetic or anti-inflammatory or mitochondrial stability, we know that phytonutrient dense foods that are high in fermentable fiber and I think the micro biome as a whole, that’s a whole new uncharted frontier with respect to cancer risk. |
|  | But what we now understand about the role that the micro biome plays in inflammatory pathways, mitochondrial function, insulin signaling, one can only assume that the micro biome probably plays a huge role in perpetuating cancer risk and and/or response to treatment. So all that we’re talking about in some way even though these pathways and mechanisms aren’t clear right now and can impact again those metabolic influencers in a very favorable way. |
|  | Phytonutrient dense foods, I think we would rate very highly from a prevention and management perspective and what jumps into my head, John, when you look at breast cancer, there's a lot of research suggesting that estrogen metabolites ... We sometimes think of estrogen as a single molecule but we know that estrogen as its metabolized has different byproducts with very different personalities and some people refer to this 2 to 16 hydroxy-estrogen ratios and that’s pretty geeky but these are estrogen metabolites that can be measured often in the urine, sometimes the saliva, that we know if you have a very low ratio of this 2 to 16 that your risk for cancer might be very different than if you have a higher ratio. |
|  | If you look at the cruciferous vegetable family, the Brassica from broccoli to cauliflower to bok choy, kale, we know that those pathways can be significantly shifted toward the more favorable ratio. That's just an example of one small slice of the nutritional science that would suggest how these particular phytonutrients dense vegetables that are high in what we call [endo-free 00:34:55] carbinol and these- |
| Speaker 2: | Sulforaphane- |
| Speaker 1: | -Sulforaphane's can modulate metabolic pathways that for some women who may be more predisposed to forming riskier estrogen metabolic pathways could transform those pathways. Most people don't think of broccoli as an important breast cancer prevention, nutritional intervention, but we would make the case to them. It is enough evidence to suggest that there’s a lot of opportunity here to be influencing these pathways. |
| Speaker 2: | Yeah, definitely. I think that if you take a look at breast cancer in the one family of plants that has the strongest overall efficacy at reducing risk, maybe not, obviously not treating on its own but just reducing risk, it would be the [inaudible 00:35:43], collard greens as you mentioned, your [inaudible 00:35:47] Kale, your arugula, all of those, that family. Of course broccoli and Brussels sprouts, Brussels sprouts may be out of the entire family the one that at times can have the highest concentrations of those [endoles 00:36:01]. |
|  | Mark, your point before that was dead on. You have three or four major areas with which phytonutrients can significantly inhibit cancer growth, can give someone an added dimension to their hopefully very multi-pronged multi-faceted approach to whether it's treating cancer or it's trying to give themselves the greatest overall risk reduction. When you take a look at those phytonutrients you started to mention, you have detoxification in the case of these Brassica families and those estrogen metabolites, when they are not being effectively detoxified and they're spending time in what we call "purgatory," they become very nasty and can cause some serious damage so you really want to make a smooth transition as they go from estrogen to being eliminated as a water-soluble basically toxin to the liver. |
|  | When you take a look at those processes, you have as we mentioned, you have an ability for many phytonutrients to stop inflammation. Inflammation and reactive oxygen species, those both respond well to phytonutrients with very high antioxidant value. Then you have the ability for phytonutrients to inhibit angiogenesis and angiogenesis of course, Mark, is the growth of blood vessels into masses or tumors. Tthat’s what allows cancer to take it to the next level to where they become ... In many cases, cancer itself doesn’t kill people as much as it basically ruins an organs ability to effectively support our health. |
|  | There's all these different levels with which you want to try to intervene and angiogenesis is a big one. You have the metabolic interventions keeping sugar away from the cancer cells. You have the anti-angiogenesis approach which I think is really important for people to acknowledge as they try to put together a healthy diet if they have cancer or they are trying to help a loved one with cancer. You have the anti-inflammatory, a high antioxidant value that you mentioned to really reduce the chances of this initialization and to then help with the earlier stages, so all of these different things. |
|  | When you start to take a look at all the attributes that plants can have, you try to choose vegetables and those fruits, I don’t ... I think sometimes people here eat more fruits than vegetables and they really load up on fruit. Some fruits have very, very marginal return on terms of what they can offer in the way of cancer, risk reduction or as assistance in treating. I would look at your very dark berries with low sugar contents and some of your citrus fruits like lemons and limes. Those have the most upside. |
|  | When it comes to vegetables, almost all vegetables, we've talked about the Brassica’s, but whether it’s looking at what's found in tomatoes, what’s found in peppers, what you find in members of allium sulfide family, garlic, ... Leeks, in particular. I think leeks are one particular vegetable that have an enormous upside when it comes to incorporating them into the diet of someone with cancer. Leeks are out of all the vegetables we've talked about, leeks may have the greatest anti-angiogenesis properties and leeks are also great for the micro biome. They're going to give us so much fermentable fiber that can help us generate more butyric acid. They are just a great thing to incorporat in the diet. |
|  | Then just in summary from my perspective to touch on something you mentioned earlier that's a really, really important point in this conversation is how people do you know that they're told they have diabetes or they're told they have a serious blockage in one of their coronary arteries and they're told that they should either go on some kind of medication for their diabetes, maybe they should consider on insulin or in the case of someone with a no coronary occlusion, they're told, "Well, listen. You know," their cardiologist tells them, "I think this is going to require surgery, so you might want to consider open-heart surgery." |
|  | How many of these people do you know say to themselves or they say to their family, "You know what? I'm going to try to do this on my own. I'm going to try to beat the diabetes with a good lifestyle. I'm going to try to really clean up my diet. I'm going to get more active. I'm going to drop my body mass index," or someone with a 75% coronary occlusion says, "You know what? Before I go in for this open-heart surgery, I'm going to really clean up my diet. I'm going to get more active. I'm going to crack this stress reduction. I'm going to meditate. I'm going to adopt the ways of someone like Dean Ornish," whether we agree with all the nuances of that, we know that he's produced some significant results with just meditation alone. |
|  | Yet people have that empowerment with those two types of chronic disease which are ever bit as life-threatening as cancer and yet when people hear they have cancer, that empowerment, Mark, goes right out the window. If someone is told they have cancer, they immediately say, "Look, this is going to take chemo therapy. It's going to take something that's going to be highly destructive," and they don’t consider the possibilities that can come with what we're talking about, this multi-facet approach that have metabolic components, green tea extract and some these other botanicals which green tea extract is something we could spend a whole podcast on. |
|  | You take a look at the research around green tea extract and all these different types of cancer, it may be at the top of the list right there with turmeric and just a handful of others. The point I'm making, Mark, and I think you'd agree, people lose that empowerment when they hear "cancer." It has so much intensity and people have so much, just so many preconceived notions and have that realistic dire circumstances around it that they don’t think about what they could do with respect to at-home, on their own or with family support. |
|  | They just think, "You know what? This is all I’ve got for an option." I find really intriguing that other diseases which are ... Look, more people die of heart disease every day than anything else. A lot of people do try to take that on with support. Maybe they do have other pharmacological interventions at the same time, but they at least atink about the potential for their diet and their lifestyle to intervene with that disease process, but when it comes to cancer, people just are ... they just really turn over the reins to someone else. It’s really intriguing to me. |
| Speaker 1: | It is a very revealing dimension of how we think and perceive and respond to all aspects of our health and diagnoses that we confront, John, and so many interesting sociocultural reasons for that and so many interesting ways in which the medical enterprise has perpetuated that powerlessness and like so much of what we talk about, John, and I think if there were a sort of a principal or theme woven through all that we talk about in the way that we think, it really is this issue of shaking individuals to a level of awareness and consciousness that can make them more aware of what is possible because I think a lot of this is just lack of awareness and lack of education. |
|  | If your medical oncologists and you read articles in the paper every day of these sort of miracles of the new immunotherapies and I’m not by any means diminishing, I wouldn’t hesitate to go for such treatment if I was confronting something that could benefit from that but it is ... I’m off struck at how little awareness people have with respect to a cancer diagnosis of their potential to alter their metabolic landscape in a way that could profoundly change their lives. |
|  | Yeah, this is the current state and people need more awareness and people need more help with this. There is no question, right John? The research in various life science fields is demonstrating opportunity, but it’s not easy for that to work its way into mainstream thinking. The medical establishment has created so many "miracles" of modern science which I think is a bit of an oxymoron. The assumption is, "I'm living at a time where I’ve got these miracles available to me. If the bomb drops, better that it drop in 2016 than 1990." That’s a bit of the mindset and hopefully anyone who thinks that listening to this podcast will begin to think a little bit differently about the potential to change those cards that they may be holding. It's a powerful story. No doubt about it. |
| Speaker 2: | Yeah, six months from now if revisit this, I think we both hope that there is a greater pendulum swing here towards a more metabolic-based therapy or at least adjunct therapy. For any of our listeners that are either dealing with something like this now at this time or they have a loved one who is struggling with this, it’s really important to consider all your options and I highly recommend that our listeners consider alternative approaches in combination with something that they may be open to from a very conventional approach. |
|  | Again, this is not a ... It doesn't have to be a monolithic approach and that’s unfortunately the way it's portrayed is that if you're going to do chemotherapy, "Wow, you better be careful with things like green tea extract because it's going to nullify the effectiveness of the chemotherapy," and there’s all of this ... It's really highly biased the way it’s portrayed now, Mark, that it has to be that one approach or "my way or the highway" is what I often hear from people who are having these discussions with their oncologist. |
|  | That's ridiculous. For someone to be told that they have three options surgery, radiation and chemotherapy at their disposal and that nothing else is to support their health is asinine and I become very, very agitated with it still, not only from our own personal experience with our son, but I just hear this every week. |
|  | Someone I talk either through email or on the phone who's faced with a diagnosis, again I’m not in practice, I'm not advising people exactly what to do, but I just say, "Try not to be paralyzed by fear. Consider all your options and look closely at this research because it’s unfortunately underrepresented." |
|  | Most people are told by their oncologist that there’s no evidence that a ketogenic diet can be an effective component, that there’s no evidence that the diet has any role in the outcome and that's just not true. I would, in fact, put many of those interventions head-to-head against some of the most standard operating procedures or protocols that are used with different types of tumors because when you really get down to the nuts and bolts of the research that's been done on so many chemotherapy-based interventions, the research is not as supportive as most people are told. |
|  | You have so many different types of cancers and you have these populations that have widely differentiating types of biochemical pathways driving the cancer and then when you really take a look at the effectiveness of a particular drug or chemotherapy-type intervention, you don't get the numbers that make it a compelling case for that intervention. |
|  | Again, I think that the way, whether it's a ketogenic diet or as you and I were talking about different metabolic interventions with botanicals and things like that, they’re often portrayed as, "Well, that's anecdotal." We have this one case where that worked and that’s unfortunate that it’s just portrayed that way because in some of these interventions, there is a significant amount of evidence that it can at least help, that it can slow the cancer. |
|  | It may not be a cure but as we talked about throughout this discussion, cancer evolves. It changes and we too have to adapt over the course of treatment. It may be that a ketogenic diet works for the first six months or a year and after that maybe you have to shift to something that's more anti-angiogenesis or something that has a greater ability to inhibit a particular pathway like NFKB or NTOR or has to suppress IGF1. |
|  | It’s complicated, but I just really encourage our listeners to not be paralyzed by fear to the point where they give up their empowerment. Look at options whether that be in Europe or here in the United States and there’s a lot of different approaches to this. We were lucky enough to find GCMAF, that's G-C-M-A-F. It has other names like [gallic 00:49:10] acid. It's a macrophage activator. It’s not used here in the United States. It's not FDA approved but it worked for our son and we went over the Netherlands and he got treatment with that. |
|  | I would say that that’s been an enormous component to his knock-on-wood, ongoing success, so there are a lot of different options out there and people just have to stay open-minded. I'm not saying that they’re all equally evidence-based or have equal effectiveness, but it’s important to stay open, to do your homework, to talk to as many people as you can, and in the end, again stay empowered. |
| Speaker 1: | Yeah. Great, great message to conclude on, John. We would remind listeners that other podcasts that we’ve done on ketogenic diets and ketogenic approaches and intermittent fasting, inflammation, there is a lot of information there that if people want to get a little more specificity around can go back and listen to as it relates to the themes that we’re bringing up here today, John. |
|  | We as always appreciate people listening to The 'Health Edge. Check out our website. We will have show notes and a YouTube recording of this podcast and others. John, you mentioned two researchers. I want to just bring those names up one more time in case people want to look at, specifically at their work. |
| Speaker 2: | Yeah, so Thomas Seyfried or Seyfried, however you'd like to pronounce it is S-E-Y-F-R-I-E-D. He's a researcher at the cutting edge of ketogenic diets and how they interfere with cancer metabolism, how they can stop particular types of brain tumors from growing altogether. He's at Boston College. He's got a variety of talks that are available online. |
|  | Then there’s Dominic D’Agostino who's in Florida, I believe at the University of Central Florida and also does an enormous amount of cutting-edge research. Both of these researchers I consider to be A1 in terms of their scientific approach, the way they really appreciate all the different nuances of cancer types, and which are more susceptible or where a ketogenic diet can be more effective. I really like both of those individuals work so much and I highly recommend their works. I believe that Dominic D'Agostino has a book out now that could be very helpful to people. |
| Speaker 1: | Great. Great, John. As always John, great to be with you buddy. |
| Speaker 2: | Great to be with you too. |
| Speaker 1: | Thank you for your willingness to open and share a little bit about your personal journey. |
| Speaker 2: | Absolutely. |
| Speaker 1: | These are not always easy things to share, but I know that it helps a lot of people to just hear how this manifests and it’s just extraordinary work that you and your family are doing. |
| Speaker 2: | Thank you. |
| Speaker 1: | It's inspiring, so keep up the good work there. We appreciate people tuning into The Health Edge. Be well. |
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