

Diet and Functional Integrative Medicine for Cancer Diagnosis

Powerpoint with graphs and statistics showing what she is describing and discussing

Narrator (VO):

Alright well I'm gonna talk today about a holistic approach to prostate cancer. So you guys already kind of heard about me I guess. So 19 years of ob/gyn and for the last definitely four if not longer I've been doing functional integrative medicine and as you mentioned I'm currently the medical director of integrative medicine at Summa. It's a bit on hold now with efforts going elsewhere currently with COVID. So you guys are probably wondering what does a gynecologist know about prostate cancer. I know you're all thinking that so let's just address the elephant in the room right. So I may have a background as a gynecologist but as an integrative medicine boarded doctor as well as functional medicine, we can really talk about dietary changes, supplements and really any nutritional advice. However why am I so passionate about it? This guy over here, my dad, he's a prostate cancer survivor as well. Nineteen years ago this month, the 15th was his surgery. So that's one reason why I really jumped at the chance when Jeannine reached out to me because of course anytime, this is an older picture my kids are older now, but I wanted you guys to know that I do have a vested interest and I'm also gonna tell you that the prostate is like the uterus. So I feel that I'm an expert on the uterus so I will share how the prostate is like that so. Anyway, today we're gonna discuss, I like to talk about what actually is cancer. What is integrative medicine? What is functional medicine for those of you that don't know? What are hormones that feed cancer? What are the lifestyle changes that I suggest for cancer and really you can apply this for any cancer. I am going to specify about prostate but really any cancer. I'm gonna talk about supplements and nutrients that I would recommend and then also dietary changes. So just to start, I always kind of talk about what is conventional medicine and what is functional medicine. So you have Hagar saying "what's wrong with me, doc?" and he says "you eat too much, you drink too much, you're short of breath, you don't get enough sleep, you don't exercise, you have bad knees, a bad back, you need glasses, your hearing is bad, you have a sinus condition, your hair is dirty and oily and you have dandruff" and what does Hagar say? "Is there a pill that I can take for that?" Okay so this is kind of what medicine has degenerated to at this point. That we see you have a problem, you get a pill, you don't always look for the cause. So in contrast, what is functional medicine? So in functional medicine we're gonna look at the cause. So if there's a tree and you have a symptom such as diarrhea for example. I'm gonna look at the roots to see why do you have diarrhea? Is it a food intolerance, is it an infection, is it something else? So by getting to the root cause we're gonna treat the cause and potentially cure. SO if you are cleaning up litter out of the river, you could do that all day long unless you went upstream to see who is dumping the litter and got rid of it there. Does that all make sense? As I said you guys can interrupt me for questions anytime and I'm gonna try to type in the chat too if you have questions. So that's functional medicine. So what then is integrative medicine? Integrative medicine is a wider net that includes functional medicine and other things like acupuncture, chiropractic, naturopathic, but we all kind of are part of a team. So what is cancer? Let's stop and think what cancer is. Cancer is actually a failure of the immune system to get rid of abnormal cells before they become full-blown

cancer. So basically we know that a healthy cell metabolizes oxygen from glucose and produces ATP and that's called aerobic metabolism. Cancer cells are anaerobic and so they siphon off the glucose from the healthy cells and they have energy and spread. So there are some people that think everyone has some type of cancer and depending on genetics, environment, a lot of things, family history, that cancer is what manifests in your body so more and more we're getting into the genetic causes. So there is something called a cell cycle and when that happens and the cell is rapidly dividing the cell is supposed to commit suicide, but that doesn't happen with cancer. Something turns it off, something prevents it. So the cell keeps dividing dividing dividing and that's what cancer is. So the causes of cancer and that varies by which cancer obviously but a lot of it can be determined by genetics, toxins, environment, viruses, pesticides, and diet. So there's a lot of multifactorial causes like I said. Now depending on which cancer we're talking about we can hone in a little bit more. So today we're gonna talk about the hormones that can effect cancer, specifically prostate cancer. We're gonna talk about estrogen and testosterone, cortisol and insulin and then at the end we're gonna talk about lifestyle considerations for either cancer prevention of recurrence or improving your battle. So just some statistics: the prostate cancer is the second most common type of cancer and the fifth highest cancer related deaths in men worldwide. And so there's a six fold higher incidence in Western country. Interesting that African-Americans have the highest rate, Caucasians and then Asians the lowest. So they've determined that our environmental factors such as diet, obesity, smoking, and exercise effect prostate cancer rates. So we're gonna talk about insulin, cortisol and estrogen and a little bit of testosterone as well. So this is a very complicated diagram of your steroidogenic hormone. So you have steroidogenic hormones and you have something called peptide hormones. So your brain makes certain hormones, your thyroid makes certain hormones, your pancreas, but all of the hormones that we call steroidogenic hormones come from your adrenal gland and interesting that cholesterol is thought to be the father of all hormones. So for men, testosterone can be made partially from conversion of DHEA and also partially in the testes. But look how closely related testosterone is to estradiol. So they're very, very closely related and there's another hormone called estrone. So they're very similar, they're on the side. We're gonna talk a little bit about cortisol here. So this think of the both sides of this diagram as a teeter-totter. We want this side which is called catabolic, so it breaks your body down to balance with this side which is anabolic, which builds your body up an especially when we're talking about any metabolic disease like aging or inflammation. So when we're talking about breast, uterine, melanoma, and prostate cancer, we think about estrogens and so part of the reason that there's such a problem with breast and prostate now is because estrogen is really available in our environment. We're seeing it in our preservatives, our chemicals, and there are things called endocrine disruptors which are in our plastics. Which that can not only affect sperm production and testosterone production but increase estrogen production. And like I showed on that diagram, estrogen and testosterone in men is a very specific balance. If you tip the scale towards estrogen you're gonna have less testosterone. So do men have estrogen? Of course they do. IF you think about men have generally a different fat depositions. Usually men do not put on weight in the hips. It's usually in the stomach but then you might see men that start to put it in you know the pectoral area and the hips, that's gonna be estrogen pattern weight gain. So estrogen and testosterone are very important to have the proper balkance in both men and women. And so high estrogen in men can increase the risk of

metabolic problems. You can start have muscle wasting. It can feed enlarged prostate and prostate cancer and then also then increase your risk of heart disease. So it's like a Goldilocks in the sense that you need some estrogen for your bones and for your heart but you don't want it to be too much. So you want it to be right in the middle. So here's my diagram of the embryological development and you can see then actually the normal, in an embryo, the normal default gestation is to female. You have to actually turn a gene off to become a male. So I always kind of say like "oh you know like God wanted everyone to be a woman and then something went wrong" just kidding, just kidding. Anyway so you can see here that embryologically, here's the uterus and here's the prostate. So those cells are gonna come from the same place and they're gonna respond to the same hormones, okay? So, if we're talking about healthy estrogen metabolism, that's just as important for men and so estrogen metabolism happens in the liver. It's a two-step process. There are enzymes that are genetically coded. So just as if you would sweep your floor then mop it and that way it would be two steps to cleaning the floor, that's how your liver will get rid of estrogen. And remember testosterone is gonna be the same pathway. So not only do you need those enzymes to work correctly, you need all these other things to be in balance. So you need specific supplements to foster those enzymes to where you need specific vitamins which act as cofactors. Cofactors are like these, so if I had a bakery and I wanted to make muffins, I need a muffin pan. If I had cake batter I could not make muffins without that muffin pan. So that muffin pan would be thought of as a cofactor. That's what's helping that batter turn into a muffin so you can see vitamins are important, specific diet is important, and for sure healthy intestine is important for all of your hormone balance, especially testosterone as well because after the liver clears any toxins or hormones it's gonna dump it into the intestine. And if your intestine isn't healthy you're not gonna, you're not gonna excrete it and you're not going to detox from that. So you can see how there's a lot of things here that affect your healthy hormone metabolism. So what are my, my kind of tips to decrease if you knew you had a risk or if you had it. I really think probably initially around the time of diagnosis it's really important to know your hormones and that is not what a typical urologist will do. They'll make the diagnosis, they'll treat you and then decide what kind of treatment you need after that. But there's not really ever a discussion why. Why did you get it? You know, so what would we do in functional and integrative medicine? We would look at a urine test that looks at how your body processes hormones and we would consider getting a genetic test not specifically for the genes of prostate cancer but the genes that are associated with metabolism of toxins and estrogen and testosterone. So when we're talking about hormones besides for estrogen and testosterone, what other hormone is important for cancer, specifically prostate cancer, is cortisol. So cortisol is one of the hormones that's produced in your adrenal gland and there's a circadian rhythm so, the environment has a circadian rhythm but also your body has that circadian rhythm. Such that you wake up in the morning, cortisol is the highest, you have the most energy and then it slopes down and when nighttime comes you're supposed to be tired and drift off to sleep. Now when your body senses stress, cortisol will elevate. Okay so the body is in now fight or flight to get out of the stress. So think about it if you're hunting for food and you're a caveman escapes from the bear he doesn't sit there and think "oh my gosh what am I gonna do about that bear, am I gonna where, am I gonna hunt for food, am I gonna get a security system for my cave?" No, he has life or death stress and then he has a period of rest and restoration. And you know the caveman slept 12 hours because there

was no electricity, he was eating that trendy Paleo diet, so he was eating healthy and he was constantly exercising right? Well fast forward to today's day and age. Our stress is now, were quarantined or isolators, social distance or your work is different. You're worried about your business, you're worried about your family. So the brain doesn't know the difference between being worried about an infection, having treatment for cancer, or being chased by a bear. The effect on the body is the same to mobilize you for fight or flight. Well that kind of process actually breaks down your tissues and causes muscle wasting and a lot of other things. And so cortisol, when it's too high is not good for your immunity. It can cause autoimmune problems and also if it's too high eventually if your body kind of burns out from that kind of stress then it will become low. And there have been studies in cancer patients when their cortisol is kind of flat that they have a worse prognosis of their cancer because of that. So this is your body's immune system and your ability to fight off things. So what are the symptoms of increased cortisol? Well sometimes people might feel like their fight-or-flight might be anxiety, nervousness, decreased concentration. Some people might have water retention, heart palpitations. Maybe you have a low blood sugar. People a lot of times have a problem falling asleep or staying asleep and then if cortisol has been high for long enough you might feel tired but wired in the sense that you can't go to sleep. And cortisol specifically is another hormone that makes you gain weight in your stomach. That estrogen is also one of the ones. So after it's up for a while, cortisol eventually comes down if you don't do anything to combat the stress. So you may get apathy, a burned out feeling, you may have low stamina, fatigue, low sugar again, joint pain, muscle pains, low blood sugar, and salt craving. So it's really important to have stress management with any cancer at all times. So what are the energy patterns for low adrenal function? Well typically morning is the worst time of day. And if you're someone that the alarm goes off in the morning that's when you feel the worst. Now if you have the luxury of sleeping until 9:00 in the morning, 7:00 to 9:00 in the morning will be the best sleep. Most people that have a lot of stress will drink a lot of coffee and then by mid-morning they feel okay and the depending on what they eat for lunch, they have the three o'clock rut. Where they're reaching for more caffeine or maybe even sugar. Now if you seem to get through your day sometime around 6 or 7 o'clock most people feel okay. Then they're multitasking, catching up on work, emails, those kind of things. And they feel better in the evening but then when it's time to go to bed they're tired but wired. So generally we test cortisol in the saliva. So we can see what your circadian rhythm is and the good news is that treatment is generally lifestyle and dietary changes. Sometimes some supplements, very rarely do we need to give a prescription. So this is an example of what a cortisol test would look like and so in men we would do, in me and women we would look at the cortisol curve and we would pay attention to this hormone DHEA. And so this is something that would be good to know. DHEA is a precursor for testosterone. So insulin, if there's an, if there's a hormone that is the problem with cancer by far the biggest one is insulin. And so that's why we're going to talk about dietary instructions today because this is one of my biggest pet peeves is when people have cancer and then you know no one ever, a lot of times people don't die from the cancer. They die from complications of the cancer, from infection or from malnutrition from cancer. So a lot of times when people are getting chemo, they're nauseated, they don't want to eat and then what does their oncologist say? Eat donuts, eat whatever you want just so you eat and that is like the worst thing that you could do. First of all there's a lot of data that says fasting during cancer treatment is actually better to kill off the

cancer and second of all eating sugar is like one of the worst things. So we know that sugar feeds cancer. They've actually done research where they've taken a cancer, put it in a petri dish in a lab and given it glucose and then the cancer grows. But when they give it insulin it grows like crazy. So what is insulin? Insulin is produced by your pancreas. Its job is to regulate sugar, okay. So think about this, if cortisol is getting you prepared to run from a bear, cortisol wants your blood you're gonna be up. Then what does insulin do? Insulin says uh-uh I want your blood sugar to go down. So cortisol starts making the blood sugar go up, insulin makes it go down and it keeps going back and forth. They keep fighting each other until your insulin stops working and you become pre-diabetic. A lot of people are not screening for pre-diabetes, they're waiting until you get diabetes to tell you to worry about your diet. And the standard American diet is cereal or bagel or pastry for breakfast, a sandwich for lunch, meat and potatoes for dinner. It's very, very high in carbs. And the more carbs you eat without your macros being balanced it's gonna spike your insulin. So that is definitely not a good thing for a cancer patient. So what can you do to minimize your cancer risk? Well it's pretty well documented, don't smoke, you know we have a healthy body weight, be active, eat well, think about toxins in your environment. Now the alcohol question, it's gone back and forth depending on the cancer. Should you have one drink a day, should you have two drink a day, is alcohol good or bad. So I usually take a holistic approach to cancer. So there's a great book called The Truth About Cancer by Ty Bollinger. It's an integrative book and he says the holistic cancer prevention approach takes into account all three aspects of human existence. The physical, the mental, and the spiritual. And that's where integrative medicine really comes in because there was another group, there's another book I'm trying to, I'm - blanking on the name of the book about cancer patients that the prognosis of cancer patients that did the best weren't the ones that ate a certain diet or took a certain supplement it was the ones that felt involved in their decision making process and in their, in their care and the ones that have hope. And so when you don't have hope and you don't feel like you have control and you have to do whatever everyone tells you, in this study that was what caused, was correlated with the poor prognosis. So this is a really interesting study. This was published in the Harvard Health Letter in May, four years ago and they published, I don't know why this was not on Good Morning America. So healthy lifestyle can prevent 40% of cancer cases and 50% of cancer deaths in the United States. So this study looked at a 136,000 white men and women in the United States and they looked at four health habits. One was 150 minutes of moderate-intensity exercise per week, two maintain your BMI between 18 and 27.5. So remember 25 and above is overweight, so they're even giving you to 27.5. Not smoking and drinking in moderation. They didn't specify what kind of drink. They just said one drink for women, two drink for men and habits were associated with preventing lung, colon, breast, pancreatic, and kidney cancer which those are cancers that are killers. So these also, these statistics also affected other cancers. So I don't know why cancer patients aren't told these four health habits because I think it would be huge. So when we're talking about spiritual health everybody has their own religion, faith, spirituality so whatever brings you peace often times can decrease your cortisol. So when you have cortisol that's too high, that is no good. Like I said it's feeding cancer, it's a disrupting insulin. So emotional wounds and toxic relationships a lot of times when you get sick you find out who shows up so a lot of times you go kind of go through that naturally. So when we're talking about physical health if there's anything that I

could, I could recommend is sweating. Sweating is really good for detoxification. So whether you like to do a hot yoga, if you're sweating when you're playing golf that counts and you're walking you know as long as you're not driving the cart. You're walking some on aerobic exercise gets oxygen moving and blood flowing and we know sweating is good for moving. And as we saw in that study in the Harvard Health Letter how it actually decreases cancer. So avoiding toxins is important, for sure, some people say don't eat any vegetable oils, even if it says organic okay. So canola oil, bad. So we're talking about olive oil, if you want a high heat there's coconut oil. Avocado oil has been really good but ditch all those hydrogenated vegetable oils. Okay, refined sugars, now I'm not saying never to eat anything with sugar and I'm talking about refined sugars so obviously like high fructose corn syrup. Now I'd rather you put raw sugar in your coffee than an artificial sweetener Aspartame, Nutrasweet, Splenda that all stuff is really bad. A lot of cancer patients, we suggest avoiding gluten and casein. Casein is the protein in dairy. Now there is b-casein that is carcinogenic but there's also if you've seen it I think it's a-one that actually you can see it acne it's a different kind of milk that is seemed to maybe not be as toxic but generally I'll put all my cancer patients on anti-inflammatory diets which is no gluten and no dairy, no excitotoxins, no msg, no artificial sweeteners and then also no genetically modified foods. Now we could go farther and say don't microwave your food, look at your plastics, look at nitrates, look at your cookware. You know, I changed out all my cookware to eliminate toxins. Do I use the microwave? Sparingly, I do. If I have a choice, I'll use the burner or the oven but you know sometimes I do. Don't put plastic on something that you're putting in the microwave and make sure you're not using plastic Tupperware. You're using glass in the microwave. So have you guys heard of the environmental work group? So EWG every year puts out a list called the Dirty Dozen and the Clean 15. So I haven't seen it yet for 2020, so this last year's, last year's list. So basically what this says is this, the Dirty Dozen are the list of foods that you absolutely must have organic because of either where they're grown, the crops, the pesticides that are used. So always on the top of the list are strawberries, spinach, kale. Okay grapes, apples. Now the Clean 15 are foods that you do not need to have organic. So that's helpful because you know it costs more money. So for example, avocados, they have a thick, you know, rind, you do not need to buy organic. Onions, asparagus. You know so this is the list of the Clean 15. So either it's because of where they're grown or how they're grown that you don't need organic. So every year they come out with the Dirty Dozen. So pay attention to that and when you see that make sure you're getting organic. Alright so this was an interesting study I found, recent study, February 2020, on the influence of diet and nutrition on prostate cancer. So just what you guys want to hear about. Okay, this was in the International Journal of Molecular Science. So they did, they looked at multiple studies that showed high fat diet increased your risk. They saw no association with protein, so you sometimes you hear oh cancer don't eat meat, eat meat, don't eat meat, eat me. So this study is saying nope there did not appear to be a correlation. Some studies showed dairy increasing the risk and so I talked about how I tell my patients not to eat dairy. So it seems like you can eat your meat as long as it's organic. And the quality of carbs matters. So refined carbs, fruit juices actually increase the risk of prostate cancer. So if you're eating carbs like a sweet potato, like resistant starch, like a plantain, a yuca, those kind of things are gonna be okay, beans. But the refined carbs are not. Especially fruit juices. Furthermore they said that some studies show vitamin A to be protective and that's what you'd get if you ate tomatoes, lycopene. Vitamin D across the board was

beneficial. Some studies showed vitamin E to help, some said no effect and the large amounts of green tea, there's something called EGCG that's in green tea that could help. And some studies showed that the gut microbiome was related and so I for sure think the gut is related. That's the other study that we always look at, microbiome in cancer patients, because a lot of times those patients are given antibiotics for surgery or radiation or something and so your immunity starts in your gut. So what's the diet that I recommend then? Well if you think about your plate, you want most of your plate, at least half your plate to be your veggies and you want to make sure some of your veggies are raw because when you steam them or you cook them you're losing the nutrients. So what's the best way? I mean you could roast but when you steam some people think a lot of the or boil a lot of the vegetable, the nutrients will go out into the water so some people say rose some people say you know saute in oil but I definitely would recommend eating a fair amount of raw vegetables. I eat a raw salad every day. Lots of herbs and spices are very anti-inflammatory. Ginger's very healing to the stomach, turmeric very healing to the stomach as well as a spice. So other things that you can include in your diet: papaya and kiwi have enzymes that are thought to potentially break down cancer. Of course you've got your antioxidants, your berries, your dark berries, that antioxidants are like scavengers. I think about reactive oxygen species as sticky things and the antioxidants are come up and binding up all those reactive oxygen things so they don't damage your cells and damage your DNA. And then garlic is very immune stimulating. So you know I can't vouch for your breath but definitely it's gonna help your immune system. Eat lots of salmon, of course unless you have allergies to any of these things. Salmon provides vitamin D and omega fatty acids and then like I said raw foods will provide the proteolytic enzymes that actually help you detoxify. So what are the supplements that can help? Okay well first of all we talked about proteolytic enzymes, so those are enzymes that help you digest your food and there's some studies that say it helps cancer. For sure vitamin D is imperative, especially where we live. I have yet to meet someone who lives here that does not supplement with vitamin D that has a normal vitamin D. When you're outside in the summer months between the hours of 12:00 to 3:00 but you gotta be you know like your thorax is bare no sunscreen if you're out for half an hour you'll get 10,000 units daily. Just as an aside, there's a lot of data on vitamin D being very helpful for coronavirus and COVID-19 that decreases transmission and decreases severity. So if you guys aren't already taking 5,000 units of vitamin D, I'm recommending all of our patients to take that. Now we talked about the green tea, chili pepper extract, I don't know I mean I think I would just probably tell you to use that liberally with your food if you like it. I don't know that those are a lot of data about the actual supplement. Now turmeric or curcumin is an anti-inflammatory most people can tolerate it. A few people depending on your genetics you may not be able to, apple cider vinegar is something that helps you detoxify and also helps you break down your food because as you get older you have less and less stomach acid. And then probiotics, now I generally don't give a generic probiotic recommendation because, because for our patients we're doing a stool test. And what that does is it looks at one of the bacteria in your gut, do you have the right amount? Do you have too much or too little? Do you have an overgrowth of some type of bacteria because that can for sure affect a lot of your symptoms and your immune system. Reishi mushroom is something that I tell all of my cancer, now there are a lot of mushrooms so depending on the cancer you may have heard lion's mane, you may have heard cordyceps, you may have heard turkey tail, reishi mushroom is something that helps

almost does almost everything that all the different mushrooms do this is generally the one that I recommend. It defends against tumor growth and improves your liver and detoxification, it promotes heart health, it balances your blood pressure, your blood sugar, inflammation and allergies. So there's a lot of things that reishi mushrooms can do and some people take it in the powder form and a spore form so that's something that I usually recommend for our cancer patients. So essential oils, I know that Stewart's has a very active essential oil program so I would encourage you to take advantage of it because there are a lot of healing stories that talk about essential oils. So what -- did essential oils are a botanical extracts of plants. So they're steam distilled and extracted so they're super super concentrated and so some of the compounds actually have metabolic effects on your body. The ones that I recommend are frankincense, so you've heard of you know the gifts that the Three Magi gave to the baby Jesus, frankincense is one of them. I've actually seen reports of people who put, I mean who had cancers that were inoperable, I'm not saying it's gonna work for everyone but, boswellia is what frankincense is. It's a strong anti-inflammatory antioxidant so some amazing reports of how it actually helps to shrink cancer. So how do you use it? Do you put it on your incision, do you put it on the actual cancer? Some would say put a couple drops under your tongue, it doesn't smell real great but if you can tolerate it that's one of the things that you can do. Myrrh, another gift that the Magi gave the baby Jesus, that actually works directly on the hypothalamus in the brain to reduce inflammation. Not as much data for myrrh, again I'm not really sure you'll enjoy the smell of that but that's another thing that might help. And then there's other oils that we suggest to decrease stress because we talked about how important it is to have cortisol managed when you're fighting any type of cancer. So lavender is a big one, peppermint and sage, clary sage is another one that can really help to decrease stress. So just a little asides of might there's myself at my practice, I have a naturopathic doctor who sees most of the men in our practice. We work holistically with patients and we have, you know, the same loyal staff and a health coach on staff here as always. We just launched an online DIY course. So for people who want more information this is the platform I'll put the lecture on. We have a male hormone health course I just actually finished it today. So it's kind of on demand a lot of information about, about what kind of things you can do to naturally balance your hormones you know. What do the hormones do, how do they get unbalanced, what kind of diet, what kind of supplements, what kind of testing. Have a full, full course for women and a lot of other, there's a couple women on the call but there's a full course for all kinds of women's health as well and for women's health issues as well. And as always we try to stay very active on social media for free information on Facebook, on our website, I'm on Instagram. So I'm always happy especially with cancer having actually my father and my mother last year had cancer for kidney cancer so it's something that has touched my family and something that I feel very strongly about to help. I feel that when people are diagnosed with cancer they are given the treatment to cut it out, kill it and squash it but very little recommendation of how to manage, how to prevent recurrence and maybe if there is a why. So that's where integrative and functional medicine comes in for any cancer to think, is there a source is there an imbalance in your body that we can work on. Is it hormones, is it stress, is it gut, is it nutrients, what is it? So that's, that's basically how, how I like to do things.