



My Nutrition, My Genes

Speaker 1 ([00:03](#)):

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Jill West ([00:25](#)):

Nutrigenomics is really a very new and kind of emerging field. I found it really does help motivate people to make healthy changes, which as we know as adults, making lifestyle changes aren't easy. And so when you have that personalized information, it definitely helps. And then also helps people really stick with those changes long-term because it's specific to their genes and their body.

Kenny Wong ([00:51](#)):

I'm Kenny Wong, a board certified genetic counselor and the chief product officer at xCures where we use AI to help advanced cancer patients identify the best treatment options. Every two months, we'll continue to bring experts in to help break down complex topics in genetics that are making people curious, with the goal of turning curiosity into knowledge you can apply in your own lives. If you have an idea for a topic you'd like explored, please email the show at nsgc@nsgc.org.

Kenny Wong ([01:23](#)):

Hi everyone. Welcome to our next episode of the Genetic Counselors and You podcast. With areas opening back up across the country and the world, many of you, I know I am, might be looking forward to going back outside and enjoying the summer. Hang out with friends and family. The American Psychological Association conducted a survey in February this year and found that 42% of adults in US reported undesired weight gain since the start of the COVID 19 pandemic with an average gain of 29 pounds.

Kenny Wong ([01:57](#)):

How do I get back on track and stay healthy? Are there foods that would work better for me, based on my DNA? In this episode, we invited Jill West, a registered dietician nutritionist to share her thoughts. Jill has over 25 years of experience as a registered dietician nutritionist and has their own private practice, Jill West Nutrition Consulting, serving clients throughout the US. Prior to starting her own practice, she published the book 400 Moms about helping busy parents feed their kids. She has worked in several major medical centers, including Joslin Diabetes Center, University of California, San Francisco Medical Center, and University of California Davis Health System. Welcome Jill and thank you for joining me today.

Jill West ([02:46](#)):

Thank you, Kenny. It's great to be here.

Kenny Wong ([02:49](#)):



Thanks for joining our podcast and I definitely have a few questions for you. I think maybe first of all, it would be good if you could share your experience with genetic testing in nutritional health for the audience.

Jill West ([03:02](#)):

Sure. Yes. So I've been using nutrition-related genetic testing for about six years. Some medical clinics and registered dietitians use it as the initial evaluation when they're meeting with every patient. I use it a little bit differently. I incorporate it when patients or clients, I kind of use those words interchangeably, when a patient or client expresses an interest. So it's not required or utilized for all of my clients, but really when personally they're most interested, I guess, is how I'd put it.

Kenny Wong ([03:41](#)):

I see. And so what I'm hearing is that for patients that may be interested in this, and I've heard the term nutrigenomics come up online quite a bit, can you share what nutrigenomics means from your perspective?

Jill West ([03:55](#)):

Sure. So nutrigenomics is also sometimes called nutritional genomics, just so people if they're hearing different terminology, it's the same thing. And I think about it as the relationship between our genes, what we eat, or some people would say your nutrition, and our overall health. It helps explain how our bodies respond to or metabolize what we eat and drink. And also how our bodies respond to different types of exercise based on our own DNA. Nutrigenomics is really a very new and kind of emerging field, meaning that the research has really only been going on for about the past 20 years. Once the human genome project had been completed, this area of research really started to expand and there's some very strong science behind it and more research is emerging regularly. But I just like people to know it's still a very young field.

Kenny Wong ([05:03](#)):

And I'm sure there are a lot more consumers that are interested in this, especially when there's more awareness around health in general right now.

Jill West ([05:13](#)):

Yes, definitely. And as more of this research comes out and more people are hearing, well, of course, with all the other genetic testing that's available too. And then this one, the nutrigenomics is really very specific to nutrition and dietary components, as opposed to other kind of health or diagnostic testing. This is not diagnostic. It's really much more about how your body utilizes food and those nutrients. And then you can benefit from knowing, based on your genetics, how your body might respond.

Kenny Wong ([05:52](#)):

I see. Thanks Jill. And so after the pandemic, although I guess the pandemic is still happening right now, but have you noticed a difference in what your patients are looking for when they reach out to you?

Jill West ([06:05](#)):



Yeah. So your statistic, Kenny, from the American Psychological Association about weight gain during the pandemic certainly rings true. And I was also a bit surprised by the average weight gain of 29 pounds was higher than I would've expected, but I have definitely been hearing from people about the pandemic weight gain. And in addition to weight, really reflecting on their overall health and how they can boost their immunity and how to be as healthy as possible moving forward.

Kenny Wong ([06:43](#)):

So related to that point, then what brings people to talk to you about genetics and nutrition?

Jill West ([06:49](#)):

So oftentimes the first question is, how would I benefit from this kind of testing? Why should I want to do this? And there are some very specific examples where I and my clients have found it really helpful. So one of those examples would be someone who has a family history of heart disease, and they're really wanting to prevent that. Or they've recently been told by their doctor that their cholesterol is high and this kind of nutrigenomics testing can be very helpful because when you know how your genes affect certain nutrients, and I'll give you some specific examples here in a minute, then I can really help personalize the recommendations that I provide to them about what to eat more of, or potentially, what to eat less of to lower cholesterol and hopefully prevent heart disease.

Jill West ([07:44](#)):

So a couple of examples of the test that I use, the nutrigenomics test that I use with my clients will measure how your genes affect how you metabolize caffeine and also sodium. And the reason that matters is that if you're a slow metabolizer for caffeine, then you want to limit caffeine more than the average person, because it's a heart disease risk for you. And same thing with sodium. If you're sodium sensitive, then watching your sodium intake is going to make a bigger difference for you and your blood pressure than somebody who isn't sodium sensitive. So those are kind of two examples, caffeine and sodium. And then this nutrigenomics testing also can measure how your body responds to saturated fat and the omega 3 and 6 fats, as well as exercise. And so that's where that personalization really comes in for somebody who has a family history of heart disease. So that's one example. Can I give you another?

Kenny Wong ([08:46](#)):

Yeah. That would be great.

Jill West ([08:48](#)):

Okay. So another example might be somebody who's struggling to lose weight. So they've been working it, the weight doesn't seem to be coming off. The nutrigenomics testing can help provide information about whether a high protein diet or potentially a low fat diet may work better for him or her based on their genetics and how they metabolize those specific nutrients. So again, it kind of helps personalize what weight loss program is more likely to work for an individual based on their DNA.

Jill West ([09:23](#)):

And then there are some people who are interested simply for general health and longevity. So some people need to consume more of certain nutrients like vitamin D or vitamin B12 because based on their



genes, those nutrients may be lower or the way they metabolize them and respond to them would be lower. So by knowing which particular nutrients they need more of, or potentially less of as well, it just, again, to optimize health and longevity, they can focus in on foods that can provide those nutrients. And if needed, supplements. Which aren't always needed, but if so, they know which nutrients are most important for them specifically to focus on. Does that make sense?

Kenny Wong ([10:15](#)):

Yeah, that makes sense. I have also a question based on the examples you brought up. So what I'm hearing is that patients, people come to you and in doing this testing, they may be able to know a little bit more about why. Do you find, at least from your experience, that as a result of the testing, that there's a higher compliance from people to follow sort of the diets that you would recommend as a result of knowing the why?

Jill West ([10:45](#)):

Definitely. And not only the why, but what do I need in particular? So there are all these different food plans out there and different recommendations and what works for one person may be different than what works for another. So this really helps narrow in on this is based on my DNA. So it definitely motivates people to make changes and to stick with those changes long-term because it's personalized. And there's actually research, there are studies that have been done, actually looking specifically at behavior change and long-term compliance, showing that this kind of testing does support that and promote those changes.

Kenny Wong ([11:31](#)):

Thanks, Jill. And I guess beyond some questions and examples that you brought up, can you share some concerns that some of your patients may come to you with when they're bringing up genetics and nutrition?

Jill West ([11:45](#)):

I think that typically the biggest one for me has been having that personal information potentially available. And I know the company that I work with takes this very seriously, and they mark every sample with a unique bar code. So there's no personal identifying information that's stored at their lab and all the genetic data is sent through a secure encrypted server. So they definitely take that personal health information very seriously. And clients can also request that their sample and genetic data be destroyed after the testing is completed if that makes them feel more comfortable doing it. And the testing that I use doesn't test for any markers that can be used to determine paternity or identify relatives or identity of an individual or anything for forensics. It isn't that type of genetic testing. It's truly the kind of nutrition focus only.

Kenny Wong ([12:51](#)):

I see. So it sounds like there are some concerns around privacy and also whether that [inaudible 00:12:56] be tied back to them. So you could also anonymize when you fill in the requisition form, for example. So if I'm interested in pursuing testing then, how do I go about doing that as a consumer?



Jill West ([13:11](#)):

Yes. Great question. And there are companies that provide test kits directly to consumers, and then there are companies that provide test kits only through a healthcare provider. The company that I work with is called NutroGenomix and that's NutroGenomix with an X at the end, rather than a CS. It's a little confusing sometimes to people. So NutroGenomix, I really consider to be the gold standard because they're leading researchers and experts in the field of nutrigenomics. And again, to really take the privacy aspect of this seriously, you can order your tests through a healthcare provider. And from my perspective, the benefit of that is you then have this healthcare provider to help you interpret the results and create that personalized food and exercise plan, versus getting the results in the mail. And it's like, okay, now I have my results, but I don't really have a summary or the highlights or a plan to move forward with all of them.

Jill West ([14:14](#)):

So that's what I really like about it being provided through a health care provider. And I will say, this isn't an advertisement or an endorsement by the National Society of Genetic Counselors. It's just an example of a company that I have experience with and really trust. I also don't receive compensation from the company in any way. It's not an affiliate program. There isn't a financial benefit to me or the practitioner. Basically consumers pay for the test and they pay their practitioner for the consultation. And with this one in particular, you can go to the website, which is nutrogenomix.com and search for a practitioner. And there's a section called locate a clinic. And you'll find with your zip code, find practitioners near you. And the practitioner would then order the test kit to either be delivered to the person directly, or it can be done in their office if they have a brick and mortar kind of clinic.

Kenny Wong ([15:13](#)):

I see. Thanks Jill, that's helpful for sharing with listeners who are interested in [inaudible 00:15:19] testing after listening to this episode. So can you share some key takeaways for the audience today? That'd be helpful.

Jill West ([15:27](#)):

Sure. Yeah, absolutely. So one key takeaway is that the nutrigenomics really does personalize your food plan in order to really know what to eat more or less of based on your DNA. And as we talked about a little already, I have found it really does help motivate people to make healthy changes, which as we know as adults, making lifestyle changes aren't easy. And so when you have that personalized information, it definitely helps. And then also helps people really stick with those changes long-term because it's specific to their genes and their body. So that's definitely one key takeaway.

Jill West ([16:08](#)):

A second would be that there are definitely many food and lifestyle changes that you can make to improve your health without doing genetic testing. So it's not essential. It kind of goes both ways that depending on what motivates you and is affordable. I've helped many, many people lose weight and improve cholesterol or get healthier without genetic testing. If that's the route they want to go as well. So it helps motivate some, but it's not essential for everyone would be my second takeaway.



Jill West ([16:43](#)):

And then the third one is that nutrigenomics can be really helpful for people who are interested in preventing some of the health conditions their parents and grandparents have had. So like we talked about, heart disease, also high blood pressure and diabetes. By eating according to your genes, there's so much we can do with lifestyle to set ourselves up for a long and healthy life. And so if that information helps people get on that track, then it can be a really great tool to do that.

Kenny Wong ([17:13](#)):

Thanks Jill. Well, thank you for joining us today for this episode. Jill has also shared a few resources that you can also read upon. It's available in the episode description and also on aboutgeneticcounselors.org. So thanks Jill again for your time today.

Jill West ([17:34](#)):

Thank you, Kenny. It's really been great to be here. And if anybody is interested in more information, they can learn more at my website, which is www.jillwestrd.com. Thanks so much for having me.

Kenny Wong ([17:49](#)):

Thanks everyone, and talk to you on the next episode.

Speaker 4 ([17:53](#)):

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