Fighting Cancer While You Sleep? The Untold Power of Natural Killer Cells Transcript

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Introduction to Natural Killer Cells

Bottom line, gut health equals natural killer cell health. Your gut is your immune command center, with over 70% of your immune system residing in your gut, which you know, say it with me, if you've been listening, health starts in the gut, but the gut starts in the mouth.

So if your oral microbiome, which leads to your gut microbiome, is inflamed, then your natural killer cells will not function optimally. This is Doctor Talks, real talk from real doctors on the issues that matter to you most.

Welcome to Vitality Made Simple. This is the podcast that equips you to feel better, look better, and to enjoy better relationships. You know, life is all about relationships.

And I'm your host, Dr. Debbie Osment. Today I want to talk about natural killer cells. These are quite a remarkable thing to talk about, yet often overlooked in the area of immunity.

But strong natural killer cells are absolutely essential for your vitality span. Now you'll see natural killer cells written as NK cells and they are truly one of your body's greatest allies.

They're part of an elegant built-in defense system primarily responsible for recognizing and eliminating unhealthy cells. So that includes unhealthy cells like cancer cells, virus-infected cells, fungal infected cells, and even parasitic infections.

You know, here on Vitality Made Simple, I think it's so important to concentrate on things that we can do for ourselves. And so that's what initiated this podcast topic.

Natural killer cells are a type of white blood cell. Specifically, they are a lymphocyte. Now they are fast, they are intelligent, and they are powerful.

But they require the right support. And you can boost and strengthen your natural killer cells naturally.

What NK Cells Do and Why They Matter

And this is going to fortify your immune system. So this is going to be a podcast that really empowers you today with simple strategies. Now, to begin with, exactly what are natural killer cells?

Natural killer cells are part of your innate immune system. Now, that means that they are your body's first responders to any kind of insult, you know, such as, I mentioned above, a virus, a bacteria, even a cancer cell.

Now, natural killer cells react immediately, within minutes or even sometimes hours, to seek out and destroy cells that are infected. against all kinds of pathogens.

It's a very non-specific response, the innate immune system is, but it's very rapid and it doesn't require any prior exposure to a pathogen to be effective.

Now, this is in contrast to your acquired or your adaptive immune system, which develops over time as a result of an exposure. Say if you you had the measles and so your body naturally is going to mount a defense against the measles.

That's an acquired or adaptive immune system. And in contrast, natural killer cells are part of the innate immune

system. They don't have to recognize it to still go after it.

They can tell if it's a danger and they're going to attack it. The natural killer cells roam throughout your body, constantly scanning for abnormal cells.

And when they find a cell that's infected or cancerous, they release cytotoxic granules, these granules that kill things, tiny biochemical bombs that kill that bad cell on the spot.

The important thing to remember is that they do this without needing prior exposure. So that's why it's so important to keep them strong. This is really a big deal because most immune cells need time to learn what a pathogen looks like.

They have to, you know, as I said earlier, acquire the ability to recognize it and then they have to adapt to it. That's why natural killer cells are so important for vitality because we don't know what we're going to face.

They're ready. They're waiting for any new invader. It's like, you know, you have this onboard team of medics who act immediately when they see a potential problem.

This is why natural killer cells matter more than ever. And so I want you to know that there's so much you can do that doesn't cost any money and you can boost these natural killer cells.

So the, the obvious question at this point is, well, Dr. Debbie, if I have these amazing natural killer cells, why do I get sick? And you know, that's precisely what prompted this podcast because here's the kicker.

Your natural killer cell function can decline. due to many factors. Number one is age. Well, I want to keep having birthdays. I don't know about you. So, you know, we can't change that, but there are things we can do to help mitigate those natural changes with age.

Chronic stress will cause natural killer cells to decline. Poor sleep, lack of exercise, toxins, inflammation, of course, inflammation, nutritional deficiencies, and drum roll, please, Even loneliness, isolation, and boredom will decrease your natural killer cells.

But I have lots of good news and I love good news because there's so much you can do to support and enhance your natural killer cells naturally.

What Weakens NK Cell Function

And that's what this week's podcast is all about. Simple, evidence-based, and sustainable strategies that will empower you to enjoy a more robust and active natural killer cell population.

And none of this is going to be expensive. None of this requires a prescription or medical intervention. But every one of these strategies that I'm going to talk about today are going to help you build resilient disease fighting vitality naturally.

And you can be thinking with each one of these, oh my gosh, I love my natural killer cells. So let's start with sleep. Now sleep is really your immune superpower.

And we talk about sleep a lot. Of course, if you're obviously somebody who wants to be feeling good, so you think a lot about sleep. And I believe the biggest thing in our world is making sleep a priority because there are so many interesting things that keep us awake.

It's really hard in our busy world, but that's why I really wanted to start with sleep when it comes to natural killer cells. When you understand the importance of these natural killer cells, it's a really good reason to not take sleep prioritization lightly.

And it's not about just feeling tired. Your internal defense system takes a serious, serious hit when you shortchange your sleep. So you might be thinking, oh, I can power through it, but studies show that just one night of poor sleep actually reduces natural killer cell activity for up to 70 percent the next day.

So this reminded me of something wild that happened in dental school. It was during finals week. We had like eight finals and 13 quizzes and I was dead thinking, you know, still probably at age about 24 thinking I was impervious to any kind of illness or anything anyway staying up studying getting ready for all this and I developed this giant fever blister on my lips so big that I could see it it was so sickening and then so you know studying hard taking these tests got called to the Dean's office and I was thinking oh my gosh what's wrong I got called to the Dean's office I go up to the Dean's office and they had their cameras out and they're like hey, we want to take some pictures of you and of this big fever blister.

I mean, super embarrassing, but it really drives home the fact that here I was at 24 years old, probably, you know, super healthy in so many ways, but very, very sleep deprived.

And when you're sleep deprived, viruses that are latent in your body can really take over. So don't be like Dr. Debbie and get too tired like that. So aim for seven to eight hours of consistent quality sleep.

And actually, it requires a plan to wind down. You've got to turn off your screens about two hours before bedtime, kind of turn down the lights, start thinking, you know, happy thoughts, maybe take an Epsom salts bath.

Sleep and Exercise for Immune Support

Epsom salts is actually magnesium sulfate. and it soaks through your skin. That magnesium is going to help you relax. So we've got sleep. Well, let's think about exercise as another potent natural killer cell booster.

Now the key is here that it's not too much, not too little, but just right. You want Goldilocks exercise. Regular moderate activity increases your natural killer cell number and its ability to fight disease.

Now notice that I said moderate. The research is so clear. You don't need to train for a marathon. In fact, overtraining physically can actually suppress your natural killer cells due to elevated cortisol levels.

So, you want to boost your natural killer cells with rational exercise. That would include 30 to 45 minutes of walking each day, light strength training, maybe two to three times a week, and we've had some good podcasts on that, and stretching daily.

Stretching is going to help you reduce stress hormones. Now, we talk a lot about all of this on Vitality Made Simple. Movement is going to make your life better in every single way.

So we've got sleep, we've got exercise, let's talk about sunshine. Natural killer cells need vitamin D in order to mature and function properly. Your body makes vitamin D naturally.

It's hard to get enough vitamin D from being outside because you have to get safe sun exposure for 15 to 30 minutes a day and I tell I tell my patients, if you want to get it naturally, you've got to be outside at solar noon.

That's when your shadow's shorter than you are. And it's really naked at noon. You've got to have a lot of skin showing. So that can be kind of difficult to do in our world unless you have a really big fence.

Now, low vitamin D levels are associated with reduced natural killer cell activity and increased vulnerability to viruses and tumors. So, what do you do?

You want to test yourself. Depending on your lifestyle and your latitude, you may need to take a quality vitamin K2D3 supplement. Most people that I've recommended getting tested are very, very low.

Optimal blood levels for immune support are between 60 and 90 nanograms per milliliter. So make sure that you

get your vitamin D tested. Okay, we've done sleep, we've done exercise, we've done vitamin D.

Let's talk about chronic stress reduction. I'd really rather word this as unwind time. Because when you hear stress, you're like, yeah, yeah, yeah. I mean, what in the heck am I going to do about the stress in my life?

Because we all have stress. But it's important to remember that it's the chronic, unrelenting stress that's really kryptonite for your natural killer cells.

And you've got, again, kind of like sleep, you've got to be super intentional. about finding ways to have fun. That's why I like to say unwind time. You know, when you're stressed, your body releases cortisol and adrenaline.

And cortisol and adrenaline are very wonderful in small burst. It helps us get things done. But it's over time that these hormones suppress natural killer cell activity.

And actually, they shrink your thymus. Your thymus is the organ that makes immune cells. Now, here are some surprising ways and free ways to boost your natural killer cells by taking more time to unwind and have fun.

Vitamin D and Stress Reduction

Try to decide which one of these is my favorite, but I actually love them all. So let's start with laughter. You've heard that laughter is good medicine.

Well, it really is, and it's really been studied. And wouldn't you love to be in that study where you get to be tested about laughter? I think that would be so much fun.

But laughter increases natural sill or kill activity. It's very immune strengthening and they've studied it mostly among like people who are, you know, being treated for cancer.

Another one of my favorites in terms of unwind time is getting outside in nature. I sort of call that vitamin N for nature. You know, there's, you hear a lot these days about forest bathing.

Which is sort of a specific way to get out in the forest and just concentrate on the forest But it's really about relaxing in nature letting it soak in just being outside Sometimes when I'm really studying and working on this book I'll just I'll just set my timer and then go outside and just look for butterflies look for bugs Just be out take deep breaths.

It's so much fun. And then of course Another big part of unwinding for me is prayer and Bible reading. That is so key in my life. I try to spend time every day reading God's Word and asking the Holy Spirit to speak through God's Word to me to lead me and guide me, and that helps take away a lot of fear.

You know, I actually have on my website a free download, a free ebook called The Fearless Forty, and it's 40 different Bible scriptures that really help you deal with stress.

That is a super way to help build your natural killer cells by decreasing stress. So, could we ever have an episode of Vitality Made Simple without talking about the gut?

No, I don't think so. Bottom line, gut health equals natural killer cell health. Your gut is your immune command center. with over 70% of your immune system residing in your gut.

Which, you know, say it with me, if you've been listening, hell starts in the gut, but the gut starts in the mouth. So if your oral microbiome, which leads to your gut microbiome, is inflamed, then your natural killer cells will not function optimally.

Oh my goodness, this is why Before I even understood it, before I started testing the oral microbiome in 2010, I would see people that had even low-level gum disease, even a little bit of bleeding, and they were sort of more on the sickly side.

They would be the people that would say, oh, I get everything that comes, you know, if it's going around, I get it, if it's going around. And it doesn't have to be that way.

When your natural killer cells are really functioning optimally, you're not going to be catching everything. Just because it's out there, you're not going to catch it.

So you want to make sure you do some what I call start somewheres to help your gut be more healthy. One thing you can do is incorporate more fermented foods into your day.

Those are things like sauerkraut, kefir, kimchi, fermented yogurt, I've got all kinds of videos, free things that you can make these things at home. Those fermented foods are going to put a more diverse population of bacteria into your gut and those bacteria are going to do all kinds of things to boost your immune system.

The other thing you want to do, of course, is to avoid processed sugar. Yes, processed sugar. I mean, you can enjoy some sweetness like honey and molasses, but it's that white processed sugar that has nothing in it that's going to help your natural killer cells.

You also want to avoid, you know, these industrial seed oils that we're hearing so much about. Things that, you know, we didn't know were bad. until lately.

Things like canola oil, corn oil, sunflower oil, safflower oil. These are the highly processed oils that are so inflammatory and they squelch natural killer cell activity.

Of course, be sure and eat a fiber-rich, yummy, colorful diet of fruits and veggies. I mean, always think of colorful foods. Think of carrots, beets, broccoli, onions, berries.

Things that look pretty on your plate. Eat what you love. I tell people you shouldn't have to choke things down that you don't like. There's enough variety out there that you can find things that you really like that are going to supply these nutrients that your body craves so much.

So also enjoy beans and legumes.

Gut Health and Immune Function

I loved episode 125. That's pretty far back with Karen Hurd. She talks about the detoxifying effects of beans. And of course, toxins are one of the big things that suppress natural killer cell activity.

So, a healthy gut is going to help you build resilient natural killer cells. I have a free course available on my website called Upstream Gut Health talking about simple ways to help your oral microbiome that are going to also help your gut microbiome.

Hey, it's all free, folks. Take advantage of it. Another way to boost natural killer cells is to really know what strategic nutrient-dense foods you need.

You're going to need zinc for immune function. And you can often eat your way into it without a supplement. Oysters, pumpkin seeds, beef are all rich in zinc.

Selenium also supports natural killer cell activation. And you can find selenium in Brazil nuts. This is going to shock you, because it did shock me. You only need one to two Brazil nuts a day.

Isn't that better than a pill? Wouldn't you rather have food? Because selenium is also so important for supporting the thyroid and supporting antioxidant function.

Antioxidants need selenium to function better. Mushrooms are great for natural killer cell activity. You know, mushrooms such as shiitake, maitake, turkey tail, they all contain beta-glucans, and this has been shown in

numerous studies to stimulate natural killer cell activity.

Of course, in episode 180, I talked to Doug Evans about sprouted foods. That was really a fun podcast. It's super easy, super inexpensive, and super nutrient-dense and delicious to grow sprouts.

I grow broccoli sprouts and some salad sprouts, sprouted some lentils, but pretty much have something going all the time. Remember, life should be delicious and when you find these delicious, real foods, your body's going to respond by giving you more of what you need.

Now, lastly, but certainly not least, we have to talk about purpose and connection. This is really what I love, love, love to talk about because the power of purpose is often ignored in the immune conversation.

But I have seen this so clearly in my clinical practice. I've seen people who literally died of a broken heart. when they had something happen in their life.

It's just super important to remember that we are body, soul, and spirit. Now research shows that people with a strong sense of purpose actually have stronger immune profiles and that includes having more active natural killer cells.

So you know we loneliness and isolation matter they're linked to lower natural killer cell activity you know our body thrives on relationships and part of those relationships are living out our values and you know this connection really matters it translates into physical health people have to have a reason to get up and get dressed in the morning.

It's just such a reminder that God designed us for a relationship. Love God, love people. We need our faith community, we need our friends, we need our family.

We really have to stay connected. So what's the takeaway? Building resilient defenses is simple and natural. Your natural killer cells are part of an elegant, built-in defense system.

Nutrition, Purpose, and Connection

They are fast, intelligent, and powerful. but they require the right support. So here's a quick summary of today's natural killer cell vitality plan, seven areas that I talked about today.

I wanted to just concentrate mostly on things that you can do yourself. Sleep, you want to have a plan and make it a priority. Exercise, get moving, but not too much.

Sunshine, if you can't be naked at noon, you might need to supplement that a little bit, but it's very inexpensive. Unwind time, de-stress, laugh, play, pray, get outside, read God's Word, gut support, you know, eat good foods that keep you pooping every day, you know, but the gut health starts in the mouth, so we're all here talking about that a lot.

It's easy to do and you just have to know that it matters. You want to have these nutrient-dense foods on your plate that are beautiful and delicious, and then of course purpose and connection.

is all going to translate to more vitality. And none of this is expensive. None of this requires a prescription. But every single one of these strategies will help you build resilient, disease-fighting vitality naturally.

So remember, you were created to enjoy your vitality for a purpose, not just for survival. Live life to the fullest. We don't need more gimmicks. your body with just a little wise support is designed to know exactly what to do.

So check out the free resources on my website, the fearless 40 upstream gut health, stay curious, stay connected, keep it simple. Blessings until next time.

Thank you for tuning into doctor talks. We hope today's episode has enlightened and inspired you on your path to

optimal health. Each day is a new opportunity to make choices that empower your well-being.

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