The Hidden Threat: Microplastics and Your Kidney Health Transcript

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Introduction to Microplastics and Kidney Health

This hidden environmental factor could be silently affecting your kidney function. And I want to equip you with the knowledge to protect yourself. So microplastics are tiny plastic particles less than five millimeter in size, often much smaller, sometimes microscopic, that have invaded virtually every corner of our environment.

This is Doctor Talks. Real talk from real doctors on the issues that matter to you most. Did you know that the average person consumes about a credit card's worth of plastic every week?

That's roughly 5 grams of microplastics making their way into your body without you even realizing it. Welcome to Wellness Focused with Dr. Visma Irfan's podcast, your prescription for optimal health, longevity and true vitality.

I'm Dr. Bismarifana, functional nephrologist on a mission to help you break free from symptom management and step into a life of thriving health. Today, we are diving into a topic that's been gaining significant attention in recent research, but isn't yet discussed in most kidney doctors.

The relationship between microplastics and kidney disease. This hidden environmental factor could be silently affecting your kidney function.

How Microplastics Affect the Kidneys

And I want to equip you with the knowledge to protect yourself. So microplastics are tiny plastic particles less than 5 millimeter in size, often much smaller, sometimes microscopic, that have invaded virtually every corner of our environment.

They are in our water, food, air and sadly even in our bodies. These aren't just passing through us harmlessly. Emerging research is showing that they are causing significant damage.

particularly to our kidneys. As someone who looks beyond the standard approach to kidney health, I find this research particularly alarming but also illuminating.

It helps explain why we are seeing rising rates of kidney disease even in people who don't have the traditional risk factors like diabetes or high blood pressure.

Let me break down what the science is showing us about how these tiny plastic particles affect your kidneys. First, when microplastics enter your body, they don't just pass through.

Studies showed that they can accumulate in various organs including your kidneys. Your kidneys are filtration organs designed to remove waste from your blood.

So it makes sense they would encounter these particles. Once in the kidneys, microplastics Especially, polystyrene microplastics which are common in food containers and packaging can trigger several harmful processes.

They create oxidative stress which is essentially an imbalance between free radicals and antioxidants in your body. This oxidative damage can injure kidney cells and impair kidney function over time.

Microplastics also trigger inflammation and chronic inflammation is a root cause of many kidney problems.

Gut-Kidney Connection and Case Example

This inflammatory response can lead to fibrosis, essentially scarring in kidney tissue, which permanently reduces

kidney function. What I find particularly interesting from a functional medicine perspective is the gut-kidney connection in this process.

Some research indicates that microplastics can damage your intestinal barrier, which we often call as leaky gut, which then allows toxins and inflammatory molecules to enter your bloodstream and reach your kidneys.

One study showed that polystyrene microplastics impair the gut barrier leading to increased levels of certain inflammatory compounds that are associated with chronic kidney disease symptoms.

So this highlights what I always emphasize to my patients. The interconnectedness of our body's systems. Kidney health isn't isolated. It's intricately linked to gut health, immune function and environmental exposure.

I remember a patient I saw about 6 months back, a man in his early 40s who came to the kidney institute with declining kidney function. But none of the usual risk factors.

He was fit, had normal blood pressure, no diabetes, no family history of kidney disease. After a comprehensive assessment, we discovered unusually high levels of certain inflammatory markers.

When we did a deep dive into his lifestyle, we found he was consuming a lot of bottled water that had been left in his hot car regularly and he was reheating his food in plastic containers almost daily.

We created a personalized protocol for him that included, among other things, switching to glass water bottles, avoiding plastic food containers specially for hot foods, filtering his water and supporting his detoxification pathways with specific nutrients and phytochemicals.

Within six months, his inflammatory markers had decreased significantly and his kidney function not only stabilized but actually improved. Now I can't say definitely that microplastics were the sole cause of his issues, but the correlation was striking.

Of course, everyone's body is different and what worked for one person might not be the right solution for another. This is why personalized assessment is so crucial in functional medicine.

So what can you do to protect yourself from microplastics and their impact on your kidneys?

Practical Ways to Reduce Exposure

Here are some practical steps. First, reduce your plastic exposure. Use glass, stainless steel or ceramic containers for food and beverages. Never heat food in plastic, as heat accelerates the leaching of these chemicals from plastic into your food.

Second, filter your water. A high-quality water filter can remove many microplastics from your dintering water. Third, be mindful of food sources. Seafood unfortunately can be a significant source of microplastic.

Consider the source of your seafood and perhaps limit consumption of certain types. Fourth, support your body's natural detoxification pathways. Your liver and kidneys work together to remove toxins, so supporting them with adequate hydration, antioxidant-rich foods, glutathione, and certain nutrients can help.

5. Maintain a healthy gut Since the gut kidney access appears to play a role in microplastic, induced kidney damage, Supporting kidney health with fiber, fermented foods and possibly specific probiotics can be beneficial.

Remember, the goal isn't to induce fear, but to empower you with knowledge. Small, consistent changes in your daily habits can significantly reduce your exposure to these potentially harmful particles.

While the research on microplastics and kidney health is still emerging, The evidence we have so far suggests that being proactive about reducing your exposure is a wise choice for long-term kidney health.

At the Kidney Institute, we consider these environmental factors as part of our comprehensive approach to preventing and addressing kidney issues. I want to emphasize that if you are concerned about your kidney function or have been diagnosed with kidney disease, this information should complement not replace conventional medical care.

Closing Thoughts and Medical Disclaimer

Always discuss any lifestyle changes or supplements with your physician, especially if you are on medication. Thank you for joining me today on Wellness Focused.

I hope this information helps you take one step closer to optimal kidney health and overall wellness. Remember, knowledge is power, especially when it comes to protecting your health from hidden threats like microplastics.

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