The Science of Food, Hormones, and Sleep Transcript

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Introduction to Hormones, Sleep, and Nutrition

Did you know that poor sleep disrupts your hormones? Hi, I'm Dr. Uma Naidu, a Harvard Nutritional Psychiatrist, and I wanted to talk to you today about something I am asked all the time, hormones, especially in women, but also sleep and nutrition.

Now, let me tell you first what hormones are. Hormones are the body's chemical messengers influencing nearly every aspect of health, from energy levels and mood to metabolism, fertility and sleep.

When our hormones are in balance, we tend to feel stable, energized and resilient. When they are disrupted, however, symptoms such as fatigue, mood swings, weight changes, low libido and restless sleep can arise.

One of the most overlooked aspects of hormone health is sleep. Sleep is when the body recalibrates its hormone production, allowing everything from stress regulation to reproductive function to run smoothly.

Yet sleep disturbances are increasingly common in modern life, often creating a cycle of stress and hormonal imbalance that nutrition can help break.

How Sleep Regulates Key Hormones

As a nutritional psychiatrist, I view hormones and sleep not just through the lens of endocrinology, but also in terms of how diet directly affects brain chemistry and the gut-brain connection.

Let's explore how hormones in sleep are intertwined, and how food can be a powerful tool to support hormone balance and restorative stress, the sleep-hormone connection.

Sleep is not just downtime for the body. It is an active period of repair, detoxification and hormone regulation. Several key hormones are directly tied to sleep.

Melatonin, often called the sleep hormone, it regulates our circadian rhythm or internal body clock, signaling the the that it is time to rest. Melatonin production depends on both light exposure and nutrients like tryptophan, magnesium and vitamin B6.

Autism, the body's primary stress hormone, follows the diurnal rhythm, highest in the morning to wake us up and lowest at night to allow us deep rest.

Chronic stress, late night screen time and poor diet can dysregulate cortisol, making it hard to fall asleep or stay asleep. Growth hormone is released during deep sleep.

This hormone supports tissue repair, muscle growth and metabolic health. Poor sleep reduces growth hormone release, impairing recovery and even insulin sensitivity.

Reproductive hormones like estrogen and progesterone as well as testosterone. These influence sleep quality mood and thermoregulation. Many women notice disrupted sleep during PMS, perimenopause or menopausal due to hormonal fluctuations.

Nutritionu2019s Role in Hormone Balance

Insulin and leptin and ghrelin. Sleep deprivation alters appetite, regulating hormones, increasing cravings for sugar and refined carbohydrates. further perpetuating hormone imbalance.

In short, sleep and hormones are a two-way street. Balanced hormones promote restorative sleep, and quality sleep keeps hormones in balance. Now how does nutrition impact hormones and sleep?

Food is not just nutrition but also inflammation for the body. The nutrients we consume influence how hormones are produced, how effectively receptors respond to them, and how efficiently they are cleared once their job is done.

Let's look at some key dietary factors that shape hormone health and place stress on the body, increasing cortisol and disrupting insulin sensitivity over time.

This cycle contributes to fatigue, mood swings and poor sleep. Eat fiber-rich vegetables, whole grains like quinoa and barley, legumes and balanced meals with protein and healthy fats to slow glucose absorption.

Also limit refined carbs, added sugars and many late-night desserts that can interfere with melatonin release. Now how about supporting stress and sleep hormones?

Cortisol and melotonin are opposites.

Foods That Support Stress and Sleep Hormones

Cortisols should be highest in the morning while melotonin peaks at night. Nutritional strategies can help maintain this natural rhythm. Magnesium, found in leafy greens, pumpkin seeds and dark chocolate Magnesium is a natural relaxant that supports melatonin production.

Tryptophan and vitamin B6, turkey, salmon, chickpeas, eggs, and sunflower seeds provide the building blocks for serotonin, which converts to melotonins.

Complex carbs at dinner, foods like sweet potatoes and lentils help amino acids like tryptophane cross the blood-brain barrier, aiding sleep. balancing reproductive hormones, adding in diet which plays a crucial role in estrogen and progesterone balance, which also affects not only reproductive health, but also mood and sleep quality.

Things like cruciferous vegetables, broccoli, cauliflower, arugula contain compounds that support healthy estrogen metabolism. Healthy fats like avocado, olive oil, walnuts, flax and chia seeds as well as fatty fish provide raw materials for hormone production.

Phytoistrogens in fruits like flex seeds, edamame and chickpeas may help smooth out fluctuations during perimenopause and menopausal.

Diet for Reproductive and Gut Hormone Health

protecting the gut-brain hormone axis as the Gut Microbiome plays a critical role in metabolizing hormones and regulating inflammation and producing neurotransmitters that affect sleep.

The things to eat include prebiotic rich foods like onions, garlic, asparagus and beans, probiotic foods, like plain yogurt, kefir, kimchi and sauerkraut, and polyphenols from berries, green tea and cacao.

Also limit excess alcohol, processed foods and artificial sweeteners that disrupt gut bacteria. Some practical eating strategies for hormone health and sleep.

To make this actionable, there's some daily food and lifestyle strategies. In the morning, balance energy and cortisol. Start with protein and fiber to stabilize blood sugar.

Think eggs with spinach and avocado or Greek yogurt with flax and berries. Get natural light exposure early in the day to anchor your circadian rhythm, which is your body's internal clock.

Avoid high sugar breakfasts by pastries or juice that spike cortisol. Mid-day, support focus and steady energy. Build

meals around lean protein and colorful vegetables and salads and healthy fats.

For example, grilled salmon with quinoa and roasted broccoli and a side green salad. Green tea offers a gentle caffeine lift plus alpha-ionine, which calms the nervous system.

In the evening, promote relaxation and melatonin. Dinner should include complex carbs and magnesium rich foods like lentil soup with leafy greens or baked sweet potato with roasted chicken.

Daily Eating Strategies for Better Sleep

Avoid caffeine after 2pm and keep alcohol minimal as both disrupt melotonin and sleep quality. A calming bedtime snack might be a chamomile tea with a handful of pumpkin seeds or tart cherries in plain yogurt with the sprinkle of cinnamon.

Cherries are a natural melatonin source. Lifestyle factors beyond diet. Nutrition is powerful, but hormone health and sleep depend on lifestyle synergy.

So to maximize results, consistency matters. Go to bed and wake up at the same time daily if you can. Stress management, meditation, yoga or journaling.

Reduce cortisol surges. Regular movement, exercise, all of these improve insulin sensitivity and boost endorphins. But avoid intense workouts right before bed.

Sleep hygiene, dim the lights in the evening. Keep your bedroom cool and unplug your screens at least an hour before bedtime. Hormones and sleep form a delicate feedback loop.

When one is out of balance, the other quickly follows.

Lifestyle Habits to Support Hormones and Rest

The good news is that food can be one of our greatest tools to restore harmony by eating in a way that stabilizes blood sugar, stabilises the stress sleep cycle, balances reproductive hormones, and nourishes the gut.

We give our body the building blocks it needs to regulate its internal rhythms. When we prioritize both sleep and nutrition, we are not only supporting our hormones, but also protecting long-term brain health, emotional well-being and vitality.

Thanks so much for watching. I hope you learned something about the power of sleep, the Power of Nutrition and how all of these can help our hormone health.

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