



## **Day Nine: Better Sleep = Healthier Gut and a MUCH Happier Brain**

There is just no way around it. We have to have good quality and enough sleep every night in order for our guts and our brains to be healthy.

To give the brain time to get cleaned out every night, we must go through 5 complete sleep cycles. Each one of those is about 90 minutes. That's why we need about 450 minutes or 7 to 8 hours per night.

The body does the majority of its repair and restoration when sleeping. Lack of sleep increases inflammation and makes the body more susceptible to infection by lowering immunity.

Where does the gut fit into this?

The gut produces upwards 95% of our body's serotonin, the neurotransmitter that influences mood and healthy sleep patterns. That's why nourishing your microbiome with essential nutrients is key to a better night's rest, beyond sleeping more hours and improving our nighttime shutdown routine. The foods we eat influence the production of neurotransmitters that control our sleep patterns, and ultimately, the balance of good and bad bacteria in our gut.

During the day, our cortisol levels (the stress hormone) are high, but in the evening, they take a dip. The rise and fall of these cortisol levels play an important role in our circadian rhythm (the body's internal clock). Our microbiome also follows a circadian rhythm that is directly associated with our sleep homeostasis.

Serotonin is the building block for melatonin, the sleep hormone. There is 400 times more melatonin in our gut than in our pineal gland.

People who have an imbalance in the microbiome experience classic slumber troubles, including insomnia, overtiredness, and sleep disruption.



So, it's a big circle – gut troubles = sleep troubles = more gut troubles = brain troubles.

In previous days we talked about the nutrients we need for a healthy gut, but there's much more involved in getting good sleep.

If you do not have good sleep habits, now is the time to change them, and you may have to train yourself to sleep.

#### SLEEP ROBBERS:

- Gadgets (from TV to smartphone)
- Caffeine, alcohol, and medications
- Warm/light/noisy room
- Being worried/angry
- Restless leg syndrome and sleep apnea
- Odd hour shift work



#### SLEEP ENHANCERS

- Meditation/hypnosis
- Cool/dark/quiet room
- Solving any emotional issues before bed
- Melatonin/magnesium
- Sound therapy
- Warm feet
- Get some sunlight every day to help regulate your Circadian rhythm.

Sleep improves the quality of your decisions and reduces stress.

#### **Eat Smart to Sleep Better**

What is the best way to help improve your sleep? With respect to nutrition, you want to avoid things that damage the microbiome environment in the first place, like processed foods, sugar, pesticides, and gluten. On top of that, you want to build a healthy microbiome by eating probiotic foods like sauerkraut and kimchi. We covered that in days 6 and 7.

But remember we talked about how nutrient absorption is affected when digestion is not optimal? Well, when we do not have the right amount and kind of nutrients, that will have an effect on our sleep which of course impacts the brain.

So – if you have trouble getting to sleep or staying asleep, start by analyzing your gut with all the things we talked about in lessons 1 to 7. And be sure you have enough of the nutrients listed in the extra materials for this lesson.