

WELLNESS LAB

# THE HORMONE CONNECTION

The special substances that regulate your mood, sleep, and even sex life are created by the bugs in your gut, new research shows. Here's how to tap into their power.

By Marnie Schwartz

**Y**our gut microbiome does way more than aid digestion. It affects your brain, stress, sex, metabolism, immune system, and hormones, according to a report in the journal *FEMS Microbiology Reviews*.

“The bacteria in our guts release chemicals and hormones that influence our health and how we think and feel,” says Marc Tetel, Ph.D., a neuroscience professor at Wellesley College. The key is to keep your bugs healthy and balanced so they perform at their optimum level. Get started with this three-point plan.

## EAT PROBIOTICS FOR A GOOD MOOD

More than 90 percent of your serotonin—a hormone and neurotransmitter that governs your well-being—is produced in your gut, says Omry Koren, Ph.D., a microbiome researcher at Bar-Ilan University in Israel. If your microbiome is out of whack, serotonin levels may drop, which can affect your mood and anxiety levels. Keep your gut bugs happy by eating a diverse high-fiber diet with plenty of vegetables and whole grains, plus probiotic foods like kimchi and yogurt, Tetel says. In fact, have some yogurt daily. *Lactobacillus*—the bacteria it contains—may get depleted by stress, causing depression-like symptoms, an animal study in *Scientific Reports* found. Restoring levels of these good bugs may reverse the effect.

## FIND YOUR SLEEP RHYTHM

Your microbiome has its own circadian rhythms with a continual fluctuation of the amounts of different bacteria, depending on the time of day, which influences

your sleep. It also interacts with the genes that regulate your body clock. Melatonin, a hormone that is an important regulator of sleep, is produced in not only the brain but also the gut, where it helps your organs sync up your circadian rhythms, says Arthur Beyder, M.D., Ph.D., an associate professor at the Mayo Clinic. To keep your rhythms steady and get more z's, feed your microbiome prebiotic foods (the foods probiotics feast on), like artichokes, raw garlic, leeks, and onions. When bacteria digest these, they release by-products that affect your brain, boosting sleep quality, according to an animal study in *Frontiers in Behavioral Neuroscience*.

## KEEP YOUR CYCLE HUMMING

The gut makes and metabolizes estrogens. Certain microbes produce them, while others break them down, Tetel says. Having the right levels of estrogens is important since they affect your fertility, menstrual cycle, mood, weight, and risk of certain diseases, like heart disease and some cancers. To keep estrogens at the ideal level, exercise regularly, eat a healthy diet, and manage your stress, experts say. Also, avoid taking antibiotics unless absolutely necessary, because they can throw off your microbiome and decrease estrogen's effectiveness, Tetel says. ■

## HEALTHY HUB

Your gut bugs help keep your body and brain strong.

