

# ULTRADIAN RHYTHMS

MODULE 2 • BALANCED LIFE • WHOLE-PERSON PROGRAM



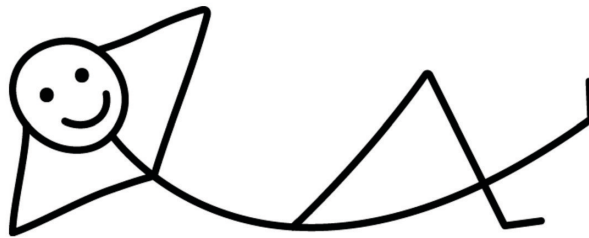


## Use the Science of Ultradian Rhythms To Boost Productivity, Energy, and Willpower

Think you have a willpower problem? Hmm. I doubt that. If you're like most health-seekers I know, what you actually have is an ultradian rhythm problem.

Never heard of ultradian rhythms? You're not alone. They're not something we learn about in school, or from most health media. But just like heartbeats and eye blinks, we all have them, and we need them to function properly.

Our ultradian rhythms matter mightily to virtually all aspects of our physical, mental, and emotional health. They also play a big role in we think about as our "willpower" and our ability to carry out the decisions we believe to be in our own best interest.

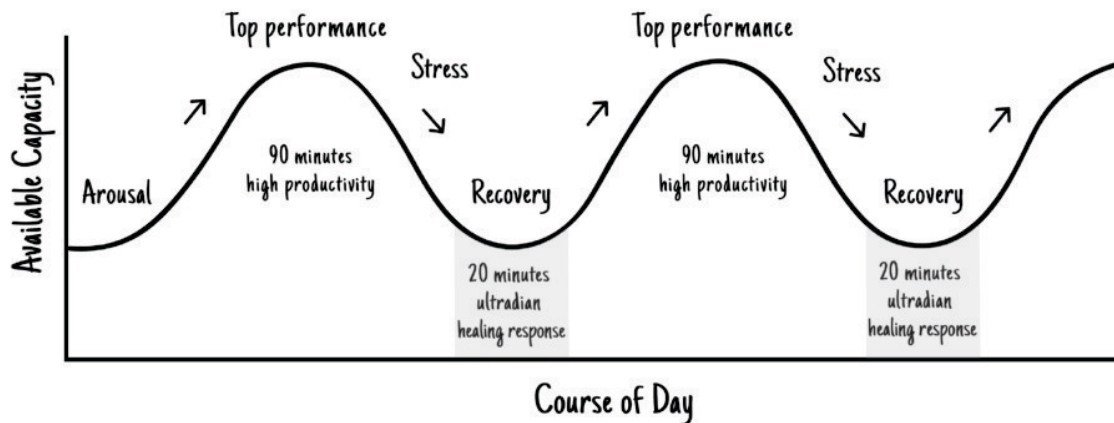


Okay, so what are these ultradian rhythms and what can they do to help you think, choose, and perform better in every part of your life? I'm so glad you asked.

The first thing to know is about ultradian rhythms is that they are not some esoteric concept like chakras or third eyes (although I respect those things on their own merits). Rather, they are biological patterns hardwired into your DNA—a function of your "clock genes," which dictate how your body functions in time. Much like cardiac rhythms and brain waves, ultradian rhythms are measurable, observable, quantifiable physiological patterns that your body must maintain in order to operate properly.

Ultradian means "many times a day." Rhythms refers to the regular oscillating (up-and-down) wave patterns these cycles follow. The primary purpose of ultradian rhythms is to manage the cycles of energy production, output, and recovery that occur in all humans (as well as animals, plants, yeast, and fungi). Basically, ultradian rhythms are like mini-versions of circadian rhythms (our twenty-four-hour cycles of sleep and waking), except that they are much shorter, occurring many times over a single day. Like circadian rhythms, they have a powerful effect on your body, and when they are disrupted or ignored, they can really mess with your health, happiness, and general well-being. On paper, they look like this:

# Ultradian Performance Rhythm



## Ultradian Performance Peaks and Ultradian Troughs

Your ultradian rhythms operate continually, day and night. While you're sleeping, they mostly affect things like your REM patterns, so you don't notice them much. During the day, however, they have a far more tangible impact on how you feel. Here's how your ultradian rhythms play out while you're going about your daily business:

- As you start your day and get yourself into a flow of sustained activity and mental focus, your body and brain start burning through a significant amount of oxygen, glucose, and other energetic fuels.
- Within about an hour and a half, you reach the apex of your productivity, entering what's known as an "ultradian performance peak."
- Meanwhile, the byproducts of all your mental and physical activity— metabolic waste, snippets of data, cellular debris—are building up in your system.
- After about an hour and a half or two hours, you begin experiencing this accumulation of all this detritus as stress. Your productivity and performance start to decline as your body enters what's known as an "ultradian trough"—an energetic low point.
- You start feeling fatigued, spacey, groggy, irritable, distracted, hungry, or fidgety. Your attention might wander. Your body might feel heavy, your face slack, your eyes glazed, unfocused, or droopy.
- You might feel the urge to hit the restroom, or you might experience a sudden craving for sugar, carbs, caffeine, or (if you smoke) a cigarette.
- You might also hear an anxious little internal voice saying, "Oh dear, it's only mid-morning and I'm already losing it. How am I going to make it through the day?"

**Okay, freeze frame here:**

**This is a super important moment— a moment of truth.**

This is a moment to which you want to bring your awareness. Because the feelings you're noticing right now? Those slobby, tired, tweaky, distracted, "blah," or "ugh" feelings? These are signs that your body is working exactly as it should be. These are your body's flag-waving signals that it needs some down time—now, or as soon as humanly possible—in order to regenerate cellular fuel, rebalance your blood sugar and biochemistry, flush its detoxification systems, and repair damaged tissue.

Your brain also needs a break to sift through all the vast amounts of data you've taken in, tag it, organize it, and create important synaptic connections. These are the connections that allow your mental databases to merge and exchange information, producing those magical aha moments, creative insights, and brilliant solutions you kept wishing you had more of. These are the connections that allow important information currently piled up in your various mental inboxes to be sorted, labeled, and filed appropriately so that you can easily recall them later, whenever the need arises. These are the connections that determine whether you are a sparkling genius making great things happen or a grumpy, lumpen mass of flesh parked on an office chair wishing you were somewhere else.

In short, even if you don't care that much about your health and happiness, if you care at all about your brain and your career, these signals your body is sending you at this moment matter. So now, let's rejoin your body's ultradian program in action:

- Assuming you heed your body's signals for a break, the moment you step away from external demands and take a few deep breaths, your body's internal ground crews begin cranking into high gear, tackling a wide array of internal detoxification, maintenance, refueling, and repair tasks that comprise what's known as the "ultradian healing response."
- During the course of the next twenty minutes (ideally), fresh stores of fuel—in the form of adenosine triphosphate (ATP)—are delivered to your cells; blood sugar, hormones, and neurotransmitters are rebalanced; toxins are flushed; and many important fix-it and filing tasks are completed.
- At that point, your frontline systems ramp back up and rapidly return to full capacity for another hour and a half or two hours. Woo hoo!

But what if you ignore your body's signals and skip that break? Ah. I'm so glad you asked. Because frankly, that's exactly what most people choose to do. That's what I used to do, too, until I realized it was slowly killing me and undermining my ability to show up in my life.

Research shows (and my own experience confirms) that if we ignore our body's signals and white-knuckle our way through these low-energy dips, our energy and focus will eventually crawl out of the ultradian trough and return to a somewhat higher level of functioning—but not nearly as high as before. After a missed or skimped-on break, our next ultradian performance peak will be significantly lower than our previous one, which means we won't likely get as much done—or do it as well—and we also won't feel anywhere near as good while we are doing it. For the next hour and a half or two hours, our body and mind will keep slogging along, but at markedly reduced capacity.

***If we miss subsequent breaks as the day wears on, by mid-afternoon, we're going to be feeling spectacularly blah—in the grip of a slump from which no amount of coffee or sugar can extract us.***



# Skipping Ultradian Rhythm Breaks = Diminishing Returns, Escalating Risks

If we miss subsequent breaks as the day wears on, by mid-afternoon, we're going to be feeling spectacularly blah—in the grip of a slump from which no amount of coffee or sugar can extract us. Meanwhile, the expense of all this physiological overtime effort will be accruing. We can expect to see:

- Rising markers of inflammation
- Increased blood pressure
- Imbalanced blood sugar and insulin response
- Higher cholesterol
- Lowered immunity
- Imbalanced neurotransmitters
- Declining mental capacity
- Gaps in memory
- Disrupted digestion
- Imbalanced acid-alkaline levels
- Slowed metabolism
- Increased moodiness and emotional reactivity
- Increased sugar and carb cravings
- Diminished communication and relational skills
- Decreased observational capacity
- Declining motor skills

Additionally, as a result of these operational downgrades, we incur a wide range of secondary costs and risks:

- We can't think straight, so our error rate increases, our reading comprehension is reduced, and our productivity plummets.
- Our peripheral vision narrows, so we miss things we'd normally notice.
- Our creativity declines, so we have a harder time coming up with good ideas and solutions.
- Our physical coordination is reduced, so we type more slowly, produce more typos and transposed numbers; our likelihood of stubbing a toe, spilling our coffee, or having more serious accidents rises precipitously.
- Our cravings for sugar and refined carbs incline us to eat a bunch of junk food that further contributes to inflammation and blood-sugar imbalances, tanking our energy and resilience, and leaving us feeling like crap.
- Disruption of normal sleep patterns and decline in sleep quality further reduce our effectiveness, while further undermining mood, immunity, and cognitive performance.

In other words, as we skip ultradian rhythm breaks, we get diminishing returns and escalating risks on every level. And the more ultradian rhythm breaks we skip, the worse the damage becomes. That's why, by the end of the day, so many people are husks of their former selves, walking bundles of deadened and frayed nerves. It's why so many people get home from a hard day's work only to fall on the couch in a heap, devour a bunch of unhealthy food, have multiple alcoholic drinks, or wind up in peevish exchanges with their loved ones.

Hormonally speaking, it's also why a lot of working couples wind up having less sex (and enjoying sex less) than they'd like. But we'll come back to that later. Because believe it or not, this all gets worse. If we ignore our ultradian rhythms for days, weeks, or months at a time, the accumulated damage and distress become more tangible, producing a variety of nasty potential results:

- Flaring of inflammatory symptoms, like rashes, cold sores, and lymph-related bumps
- Back and neck pain, headaches
- Stomach pain, digestive distress
- Hormonal imbalances
- Brain damage and memory loss
- Mood imbalances
- Alterations to DNA (activating disease-causing polymorphisms)
- Accumulation of fat stores, especially around the belly
- Unconscious obsessive-compulsive behaviors like nail biting, cuticle picking, cheek or lip biting, hair pulling, and scratching
- Accelerated aging
- Hair loss and thinning ... and pretty much all of the things you'll find on the Weird Symptom Checklist

Eventually, the inflamed and diminished state of the body-mind (caused by the destructive effects of delayed maintenance, repair, and detoxification) can set the stage for serious conditions like heart disease, type 2 diabetes, autoimmune disorders, migraines, arthritis, depression, Alzheimer's, and more.

I know it might seem tough to believe that all of these awful things could result from something as seemingly insignificant as some missed rest breaks. And, of course, many of the same negative effects can be created or exacerbated by other factors, including poor nutrition, environmental toxins, infectious diseases, and so on.

But when you think about it objectively, it makes sense that extended ultradian-rhythm mismanagement can play a huge role in degrading our health, sanity, and general well-being: Whenever you repeatedly overdrive and under-maintain any system, it tends to fail.

***Whenever you repeatedly overdrive and under-maintain any system, it tends to fail.***

We've heard a great deal about the importance of sleep in the past few years. We now understand that our bodies accomplish the majority of their intensive repair and biochemical rebalancing work while we slumber. When it looks like we're doing nothing, our bodies are actually doing some of the most important tasks imaginable.

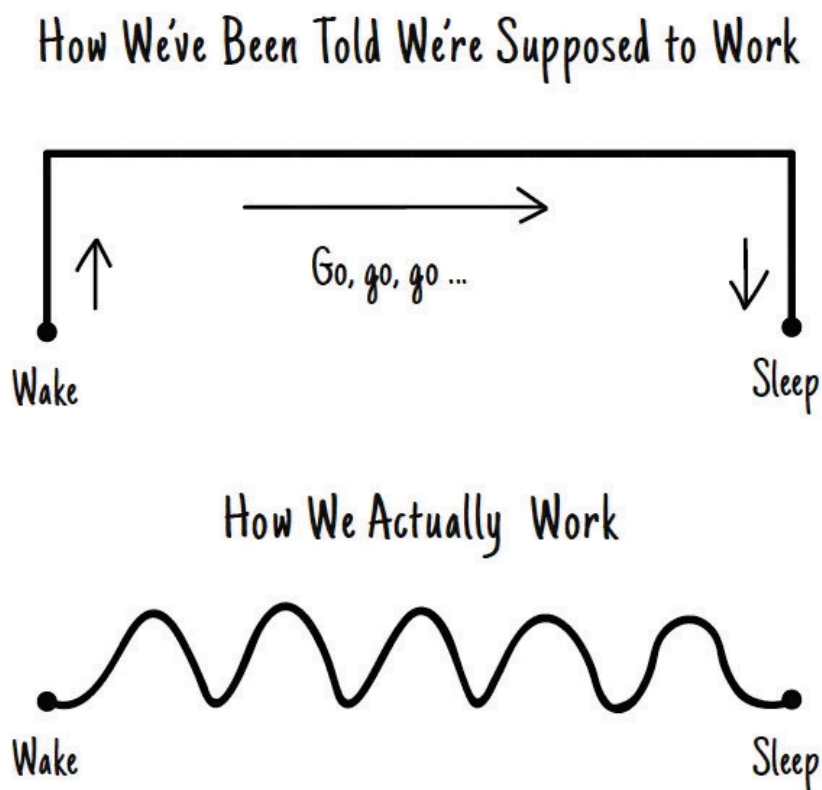
Well, ultradian rhythm breaks are like "sleep snacks"—not naps, per se, but similar in their potential to return a tired and depleted body to higher function.

The problem is that we've got some serious cultural programming to overcome here, not just about sleep, but about rest and recovery and self-care in general. The American work ethic is all about non-stop activity and determination. It has a long history of glorifying acts of hard work, self-sacrifice, suffering, and endurance. We like the idea of pushing through, hanging in there, just doing it, and

grinding away until something is done. We tend to think of taking a break as being a sign of weakness, a sissy-quitter thing to do, a surefire way to tank our productivity or otherwise undermine our value.

Note: In blue zones regions around the world, the world's healthiest, longest-lived people were nudged into movement every 20 minutes or so

In fact, taking ultradian rhythm breaks is one of the best ways to improve our productivity, to make more empowered choices, and to access the inner strength we need to keep our healthy lives on track.



## How Can You Start Listening to Your Ultradian Rhythms?

- Start noticing that throughout the course of each day, your body moves through a repeating, oscillating energy cycle, rising to an energy peak over the course of an hour and a half to two hours, and then dropping into an energy trough that lasts about twenty minutes.
- Know that these low-energy troughs are your friend and that they have a purpose: Getting you to take a physical and mental break so that your body can repair, rebalance, replenish, reorganize, and detoxify its core systems.

- Be on the lookout for signals that you need URBs. They include fatigue, brain fog, loss of focus and productivity, yawning, fidgeting, difficulty keeping your eyes open, irritation, hunger, thirst, clumsiness, increasing errors, and any kind of bathroom urge (when you need to go, go!).
- Watch for ultradian troughs to strike in the midmorning and midafternoon (within two hours of starting work and within two hours after lunch). At the first signs of depletion (or ideally, before), stop what you are doing and take a break: Twenty minutes is ideal, but any break (even five or ten minutes) is better than nothing. The longer and more chill your break is the more repair and replenishing work your body will do.
- Give your body and mind a chance to shift gears. If you've been sitting still, move. If you've been moving, sit still. If you've been focusing intensely, let your brain shut down.
- Doing pattering manual tasks is okay (fill your stapler, empty the trash), but avoid any intensive demands or distractions, including the use of electronics and digital media.
- Consider setting a timed alert that prompts you to assess your state of energy and focus every ninety minutes or so. Once you become adept at noticing your own energetic rhythms (review the first Nonconformist Competency, Amplified Awareness), you'll no longer need an external alert.

## Ultradian Rhythm Break Activities

Feel free to combine one or more of the following (based on what your body craves) for a total of ten to twenty minutes, or for however long you can manage:

- Hit the restroom (even if you don't think you have to go).
- Get a drink of water or cup of tea and enjoy drinking it slowly.
- Grab a healthy snack (avoid refined carbs and sugars) and eat it away from your desk and while not doing anything productive, demanding, or attention-distracting.
- Get outside and walk calmly (looking around you, not at your smartphone).
- Try a walking exercise.
- Stare into space or out the window, seeing if you notice an interesting shape, color, or scene.
- Close your eyes and meditate or do deep breathing.
- Sit on the ground or bench and let your mind wander for a while.
- Walk around the building looking for things you never noticed before.
- Visit with a colleague or friend, expressing interest or positive feelings.
- Listen to a guided meditation or piece of calming music.
- Do a little restorative yoga (Shavasana is highly recommended).
- Do a mindless task, like refilling your stapler or cleaning out your purse or a drawer.
- Run a simple or pleasant errand (e.g., picking up flowers, shopping for a gift).
- Rub some lotion or balm into your hands, cuticles, and elbows.
- Waft some aromatherapy oils or flower essences around your space.
- Call a loved one to say hi or to express love and appreciation.
- Visualize how you want the rest of your day or evening to go.
- Make a quick list of things you are grateful for.
- Reflect on a list of your core values and notice which ones have been in play today.
- Ask yourself what you're hankering for and do something to honor that.
- Consider the body position you've been in for the last hour, and assume some contrasting position. If you've been leaning forward, stretch backward. If you've been sitting, stand up or lie down. If you've been still, move about. If you've been looking down, look up. If you've been focusing your eyes close-up, look far away.



What you don't want to do is more of whatever you've been doing for the past couple hours, especially if that's looking at some kind of screen. You need a shift of gears, a reboot, a change of scene. The main thing you need to know is this:

The more you understand and respect your own ultradian rhythms, the more capable you'll be of getting the best from your body and mind.