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Tick-Tock ... Listen to Your Body Clock!

By **Debbie DeAngelo**
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Editor's note: Following is the latest article by Jefferson health and wellness expert Debbie DeAngelo.



The first timekeeper wasn't Timex. It was your own living cells.

Whether you're a night owl or a morning lark or find it easier to exercise in the morning or the afternoon, these practices form the basis of chronotherapy and could someday influence the timing of medical and surgical treatment.

Chronotherapy tailors treatment of illness to your body's natural biorhythms. While most of us equate our internal body clock with the circadian rhythms that regulate the sleep-wake cycle, it actually orchestrates numerous bodily functions. Housed deep within the brain, in the hypothalamus, is the body's master clock. At one time, it was considered to be the only biological regulator. However, studies now reveal the existence of peripheral clocks throughout the body that are in sync with the master clock. Once the master clock receives cues from the eyes about the amount of light present in the environment, it then signals the rest of the body. In this way, your body knows how and when to make you alert during the day and sleepy at night, increase your body temperature and blood pressure before awakening, control habitual hunger, and grow and develop normally.

Several factors can throw off your biorhythms, including illness, shift work, and traveling across multiple time zones. Tuning into your own natural rhythms can maximize your productivity and energy as well as optimize your health. By tracking your individual pattern, you can determine the best time for conducting meetings, learning new information, exercising, and taking certain medication.

Scientists are exploring the heightened effectiveness of treating diseases in accordance with the patient's biological cycles, as well as using this knowledge to combat jet lag, insomnia, narcolepsy, and mood disorders. They are discovering that there is so much variation and individuality in our internal clocks that this concept could shape the next frontier of personalized medicine.

Here are some intriguing research findings that illustrate how our inner clock works.

- More heart attacks occur between 6 a.m. and noon as blood pressure sharply rises upon awakening. However, your highest blood pressure reading of the day is usually between noon and 6 p.m.
- Hay fever symptoms often flare after awakening in the morning because cortisol, an anti-inflammatory hormone, is the lowest at night. Taking a long-acting antihistamine at bedtime might result in better symptomatic control.
- Asthma attacks occur more frequently between midnight and 6 a.m., with the greatest number occurring between 4 a.m. and 6 a.m. when airways are the most constricted. When planning activities, asthma sufferers should keep in mind that airways are most relaxed in the afternoon.
- When mentally processing material, short-term recall is better for information learned in the morning, while long-term recall is better for information learned in the afternoon.

How can you use all of this information right now? By resyncing your inner clock. For a variety of reasons, many people are making choices that work against their natural body rhythm.

Here are some recommendations for keeping your inner clock running on time:

Create a bedtime routine. Chronobiologists say that going to bed and awakening at the same time every day is the most important step you can take. This consistency is crucial to regulating your sleep habits. Also, dim the lights in the evening and sleep in a dark, quiet room. Limited light exposure supports the regulation of melatonin, the sleep-wake hormone.

Exercise early. When it comes to exercise, any time is better than no-time. Physical movement fuels your internal timekeeper and influences many of your bodily processes. Morning or early afternoon fitness helps you to fall asleep quicker and awaken more easily.

Caffeinate carefully. Yes, I'm sure some of you are audibly groaning at this suggestion. Take a breath, you don't have to forgo the caffeine ... just time it wisely. Avoid it late in the afternoon.

Cat Nap. Napping can be refreshing, and brain-boosting, as long as you limit it to 20 to 30 minutes early in the afternoon. If it's too long or too late in the day, it will throw off your circadian cycles.

Spend time outside in the morning. Morning light is crucial to the master and peripheral body clocks. Walk the dog, enjoy your cup of Joe outdoors or place your office desk near a window.

Close the kitchen. Eating triggers numerous changes in your blood sugar, insulin, digestion, and kidneys, which power down in the evening. Eating within a few hours of bedtime restarts this process and confuses your system.

Chronotherapy research is a fascinating field still in its infancy. In the meantime, pay attention to how your body functions throughout the day. This will enable you to pinpoint your peak times as well as your low times and ultimately help you to make the most of your personal and professional activities.

After all, timing is everything.

ABOUT THE AUTHOR

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