

Probing Question: What makes somebody a morning person or a night owl?

November 30 2006



Credit: AI-generated image ([disclaimer](#))

I'm a dyed-in-the-wool morning guy: up at 5, nodding off by 9 p.m. My college-freshman son, on the other hand, is the proverbial night owl: up around noon, and I don't even want to know when he gets to bed.

"There is a strong genetic component determining whether a person is an

evening or a morning type in their activity times," said Penn State psychology professor Frederick Brown. "Everyone has an inborn basic biological rhythm -- also called a circadian rhythm. Across the population, that rhythm averages about 24.1 hours long."

During that cycle, many "phase relationships" play themselves out. One is body temperature. Average normal body temperature is about 98.6 degrees F. "Our normal temperature is at its lowest phase about two hours before we waken," Brown said. "In some individuals, it drops to nearly 96 degrees. Every day our body temperature slowly increases until its highest phase may top out at well above 99. Later in the evening and into the night, our temperature drifts slowly downward again to its lowest phase."

It turns out that the temperature rhythm is representative of what else is going on in the body. Physical vigor, for instance: A person is physically stronger in the afternoon, when temperature is higher. "Mood is higher in the afternoon for most people," Brown said. Fatigue? "A temporary slump of tiredness normally sets in between 4 and 6 in the afternoon -- assuming the person gets up at 7 and goes to bed at 11."

The vast majority of people are neither strong morning nor strong evening types -- just day types. "Even though somebody will swear he's a morning person or a night owl, that's often a false perception," Brown said. However, 15 to 30 percent of people clearly do not follow the normal 24.1-hour cycle. "Their natural period runs shorter or longer than that, a difference that can change the time they normally fall asleep -- and, later, spontaneously awaken -- by a couple of hours."

I told Brown about my early-to-bed, early-to-rise lifestyle. "Sounds like you're a strong morning person," he said. My teenage son? "For people who are extreme evening types, 1 o'clock in the morning is still an active time. Those individuals also naturally awaken much later in the morning."

The great majority of younger college students fall into this category.

"There's a strong developmental component involved in this genetically determined rhythm," Brown continued. "It seems to hit at about the time of puberty. We suspect it's linked to changes in sex hormones." Add that hormonal change to adolescent social pressures -- the desire to get together and hang out, the need to attend evening classes or other activities, not to mention the temptations of DVDs, video games and music -- and people find young adults staying up late.

"Most college students, like most members of the population in general, aren't true night owls, even though they tend to be evening-active," Brown said. For many, midway through college there's a shift away from a strong evening preference. That shift may result from physiological changes at the end of adolescence. Also, new social variables may kick in: "A lot of kids seem to say, regarding socializing and the party scene, 'OK, been there, done that -- now I've got to buckle down and tend to my academics so I can get a job after graduating.'"

As people get a bit older, they become more synchronized to their built-in biological rhythms. Evening types retain their evening preferences. The great majority of day and morning types tend to become morning-oriented as they face the need to wake up and go to a job, work steady shifts, put in long hours or take care of children. In their young and middle years, most adults -- whether they're morning, day or evening types -- need eight or nine hours of sleep nightly. Women need a bit more than men.

As more years pass, individuals in their 60s and 70s often find they can function quite well with only six and a half or seven hours of sleep per night -- whether they're morning people, day people or night owls.

Source: By Charles Fergus, Research Penn State

Citation: Probing Question: What makes somebody a morning person or a night owl? (2006, November 30) retrieved 17 April 2024 from <https://medicalxpress.com/news/2006-11-probing-morning-person-night-owl.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.