



[HEALTH PATROL]

Your Personal Time Zone

IN A SLUMP? GET IN SYNC WITH YOUR BODY CLOCK.
BY KATIE GILBERT

YOU KNOW THE types: The early bird who rises with the sun, clear-headed and eager to take on the day. And the night owl, practically comatose if roused before noon, but sharp in the evening.

Whether you're a lark or an owl affects much more than the amount of coffee you need to start the day. Your circadian type affects cognitive functioning: "The part of the brain that regulates your ability to think clearly and solve problems is heavily influenced by the body clock," says David Dinges, chief of the division of sleep and chronobiology at the University of Pennsylvania. An increasing body of evidence also links one's inner clock to mood fluctuations and fitness; it's even

linked to personality. Morning people tend to be introverts who are conscientious and driven, while night owls are more often impulsive extroverts. Owls also tend to score more highly on intelligence tests and are more likely to be depressed.

After waking up, early birds have higher levels of the stress hormone cortisol than do owls, which may explain their instantly chipper demeanor. Owls' heart rates are higher in the afternoon than in the morning, which may be one reason why they are sharper mentally and physically as the day goes on. Most telling, many researchers agree, are peak body temperatures, which are linked to reaction time. An early bird's temperature

peaks at 3:30 P.M., while an owl's rises until 8:00 P.M.

What sets the body's clock? The determinants are neither entirely environmental nor entirely genetic. Scientists have pinpointed several genes that indicate circadian type is partially heritable.

An imprinting process after birth is also a factor: Studies show that babies born in autumn and winter tend to be earlybirds, while spring and summer babies often grow up to be owls. Chronobiologists believe exposure to sunlight affects one's clock for life. Summer's long days can set the clock a few hours later, leading to owl-like behavior, and short winter days have the opposite effect. Another factor in the owl-versus-early-bird breakdown is age: Teens and young adults tend to be owls. But as a result of what researchers suspect is a mix of hormonal changes and cultural factors like uncompromising work schedules, most people steadily move towards early-bird-like behavior as they age.

The best way to make your inner clock work for you? Don't fight it.

PHOTO: GETTY IMAGES

QUIZ

Are You an Owl or an Early Bird?

MODERN LIFE DOESN'T ALLOW MOST OF US TO BE OUR TRUE SELVES. IDENTIFY YOUR OWN BODY CLOCK.

Always = 5 | Sometimes = 3 | Never = 1

- n I have a good appetite 20 minutes after waking in the morning. _____
- n I would have a great workout at 7 to 8 A.M. _____
- n I find it easy to get out of bed in the mornings. _____
- n I wake up without an alarm clock on workdays. _____
- n If I worked between 4 A.M. and 6 A.M., I would choose to sleep beforehand rather than afterward. _____
- n I am at my very best when I start my day. _____
- n If I had to take an important test, I would prefer to take it at: _____
8-10 A.M. (5), 3-5 P.M. (3), 7-9 P.M. (1)
- n If I could choose my schedule, my core working hours would be: _____
5-10 A.M. (5), 10 A.M.-5 P.M. (3), 5-10 P.M. (1)

Scoring: Total your scores and compare them to the scale below. _____

EARLY BIRD

35-40: Extreme early bird

You are among the 10 percent of people who naturally rise by 5 to 6:30 in the morning, feeling fresh. You are most productive during the first half of your day, but in the afternoon your mental sharpness steadily declines.

27-34: Moderate early bird

You have many early bird traits, but perhaps you set your alarm clock "just in case," or sleep in on your days off. Nights are not off limits for you, but you don't often stay out late.

DO use sunlight to your advantage. Spend some time outside in the afternoon to bolster your energy during the second half of the day.

DO engage in moderate evening activity—walking or socializing—rather than reading or watching TV.

DON'T accept a night job expecting that you'll easily adapt.

DON'T exercise within four hours of bedtime.



HUMMINGBIRD

22-26: You are neither

Chronobiologist Michael Smolensky refers to your more flexible type as a "hummingbird." You tend to be ready for action both morning and night, in sync with our culture's demands.

NIGHT OWL

14-21: Moderate owl

While you don't consider yourself nearly nocturnal, you do prefer evenings to mornings. Your mood increases steadily throughout the day. A job that starts at 7 A.M. is not appealing, but a fishing trip at dawn isn't out of the question.

8-13: Definite owl

If you had it your way, you'd sleep till noon. If you hold a 9- to -5 job, you rise as late as possible and usually skip breakfast. At night you find yourself busy, perhaps surfing the Internet, doing the laundry or socializing.

DO sleep with curtains open to let the sun wake you.

DO perform your morning routine in natural light.

DON'T stay up late on the weekends or you'll suffer the effects on Monday, the equivalent of weekly jet lag.

DON'T start new projects or watch TV right before bed. Opt for reading or listening to music.

PHOTO: ANTHONY NAGELMANN/UPPERCUT IMAGES

Sources: Michael Smolensky, *Chronobiology International*, Luciano Mecacci, University of Florence, David Dinges, University of Pennsylvania. Quiz adapted from *The Body Clock Guide to Better Health* by Michael Smolensky and Lynne Lamberg.

Staying Fit by the Body Clock

Wait to work out. Regardless of your inner clock, the optimal work out time is in the afternoon and early evening. During the second half of the day, the body's systems are geared up for action; the heart and lungs are performing most efficiently and the body is most limber.

Keep gym times consistent. Everyone from novices to Olympians will get more from working out at the same time each day. Weight lifters who exercise at the same time consistently gain more power than those who work out at a variety of times during the day. This need for routine is considered important enough that circadian rhythm specialists help organize Olympic event scheduling.

Circadian type can give you a leg up. Just as some sports, such as baseball or tennis, offer advantages based on right- or left-handedness,

others favor early birds or night owls. The extreme owl may be at a disadvantage when playing golf, generally done in the morning or early afternoon. If you're an owl, try nighttime basketball or soccer.

Eat by the clock. Our internal clock responds to cues we give it about what time of day it is. Light is the most powerful cue, but when we eat is another important indicator. Body clock experts stress that consistent meal times are crucial in keeping the clock running smoothly.

Avoid the "post-lunch dip." Everyone tends to be groggy after lunch, regardless of whether they are an owl or early bird. But owls often have a bigger dip: They may overeat at lunch because they tend to skip breakfast. A balanced breakfast is essential for all circadian types. A brisk walk will also sharpen the brain.



Beware of midnight snacks. Owls are notorious night nibblers, simply because they're awake and often socializing during these hours. Such habits can lead to weight gain, because calories consumed at night are not immediately burned off.

THE BEST TIME TO DO EVERYTHING

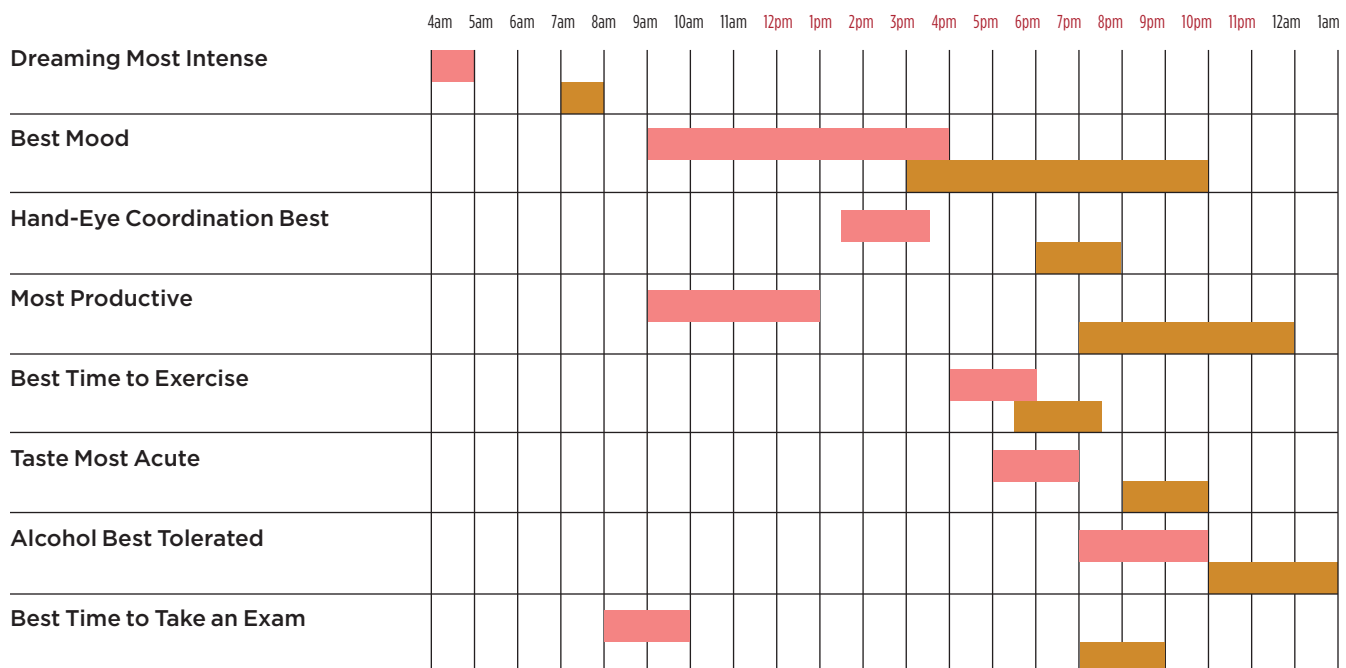


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