



Rhythm refers to an event that occurs repeatedly in time with a regular pattern. As we all experience, auditory rhythm in the form of drumming and music are extremely powerful and are an important part of every human culture and ritual.

Virtually every cell and system of the body has an inherent optimal rhythm. These rhythms can occur at intervals of nanoseconds, minutes, hours, days, months, seasons, years and phases of life. Like most functions of our body, these rhythms are programmed in our genes, but are modified by epigenes², life experience and environmental factors such as light, food and activity. Chinese and Ayurvedic medicine have complex models of the rhythms of our bodies and minds, daily, seasonally and astrologically.

The hypothalamus, a deep nucleus of the brain, is the master clock for the body, acting like an orchestral conductor, sending signals to the varied instruments of the body. It controls the rhythm of our sleep-wake, hormonal, mood, immune and autonomic nervous systems³. Other systems with biorhythms include nutritional (we eat and digest at certain intervals), detoxification and activity.

Confusion occurs when each clock in our house has a different time. Twice a year we shift our clocks which allows us to better coordinate with the outside world and causes us to get all our clocks synchronized. The body utilizes similar processes; and we experience the body's confusion when its rhythms are off.

A dominant rhythm that we experience over life is the sleep-wake cycle. When this is not functioning properly, we experience alterations in energy, cognition and mood. Disturbing this rhythm also makes us prone to dis-eases such as diabetes and Alzheimers.

Sunlight is a main synchronizer of our circadian rhythm via the hypothalamus. Over human evolution, we obeyed this master rhythm of the universe, following it from day to day and from season to season. The availability of light and fruits throughout the day and year may be significant contributors to our epidemics of chronic dis-ease. The moon also has an affect on certain bodily functions.

Most creatures that follow the sun have a pineal gland, which secretes an ancient and simple hormone called melatonin. In some frogs, the pineal gland receives sunlight directly through a clear membrane at the top of the skull. As we evolved, the pineal gland became buried deep in the brain, and receives light signals indirectly from our visual system to influence the hypothalamus. The pineal gland is thought to be the location of the "third eye" in classic yoga. Techniques that give access to special functions of the mind and body may work in part by modulating this system. Though melatonin is readily available from health food stores, its role remains mysterious and poorly defined (there

is limited incentive for research since God holds the patent). Melatonin clearly "re-sets" the hypothalamic master-clock, as experienced by people who travel and must abruptly adjust their sleep-wake cycle to a new time zone. Melatonin also serves as a powerful antioxidant and has been shown to increase survival in metastatic breast cancer.

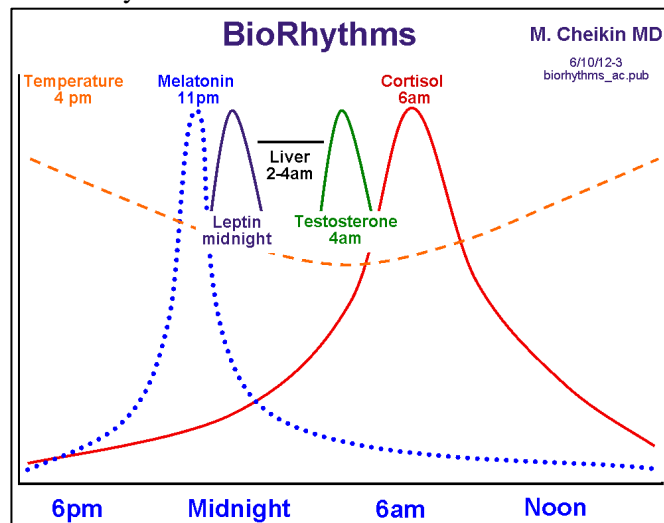
Evidence of imbalance of our biorhythms are many and include 1) inability to fall or stay asleep, 2) excessive fatigue at periods of the day, 3) no hunger upon awakening and/or excessive hunger in the evening, 4) hormones and cycles irregular or symptomatic, 5) episodes of anxiety, irritability, depression or fog at certain times of the day or month.

Ways to reset our biological clocks include stabilizing our sleep-wake cycle, no electronics just before bed, pitch black bedroom, eating fat and protein upon arising, not eating after dinner, and de-stressing with yogic exercises as well as specific nutritional supplements.

Mainstream medicine will eventually pay more attention

to these biorhythms, since the timing of certain tests and medications can change their effectiveness dramatically, as evidenced by the measurement of hormones and blood sugar and the administration of insulin and sleep medicines.

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References and Reading Materials

1. www.cheikin.com has references for this article as well as others.
2. epigenes are software molecules which we inherit from our parents, grandparents and ancestors and that program our genetic hardware
3. the Autonomic Nervous System, via the sympathetic and parasympathetic divisions, control heart rate, blood pressure, body temperature, digestion and many other "automatic" functions.

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