

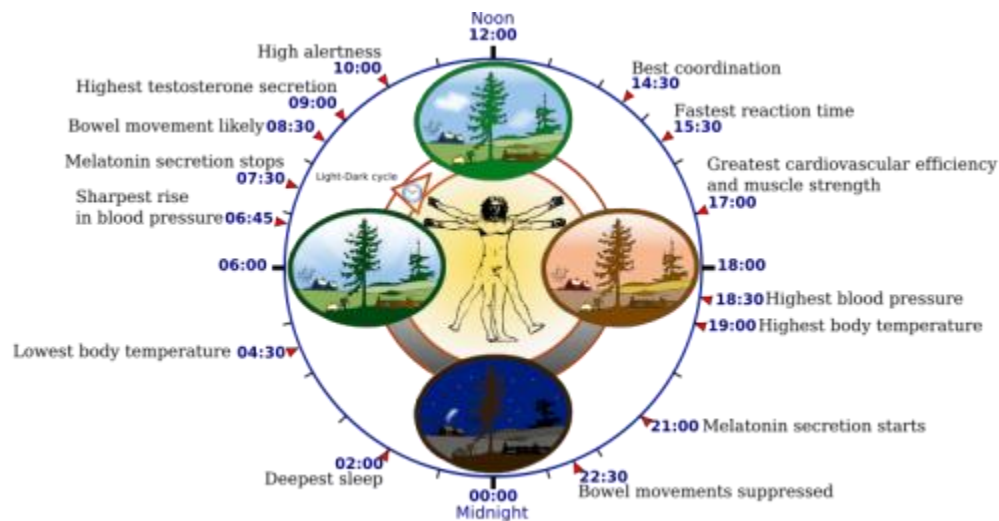
Early To Bed, Early To Rise

May 28, 2010 by [Jessica Kastl](#)

### *Sleep and Our Circadian Rhythm*

DID you know that the hormones released during sleep, particularly melatonin, are **ANTI-AGING**? Yes, that's right! Sleep is one of the most important factors in maintaining optimal health, not only how much sleep we get, but **WHEN**.

The rise and fall of the sun affects EVERY living organism on this planet! This natural cycle is the **circadian rhythm** and is a roughly 24-hour cycle in the biochemical, physiological, or behavioural processes of all living entities. This is what happens during this amazing cycle beginning when the sun rises in the morning:

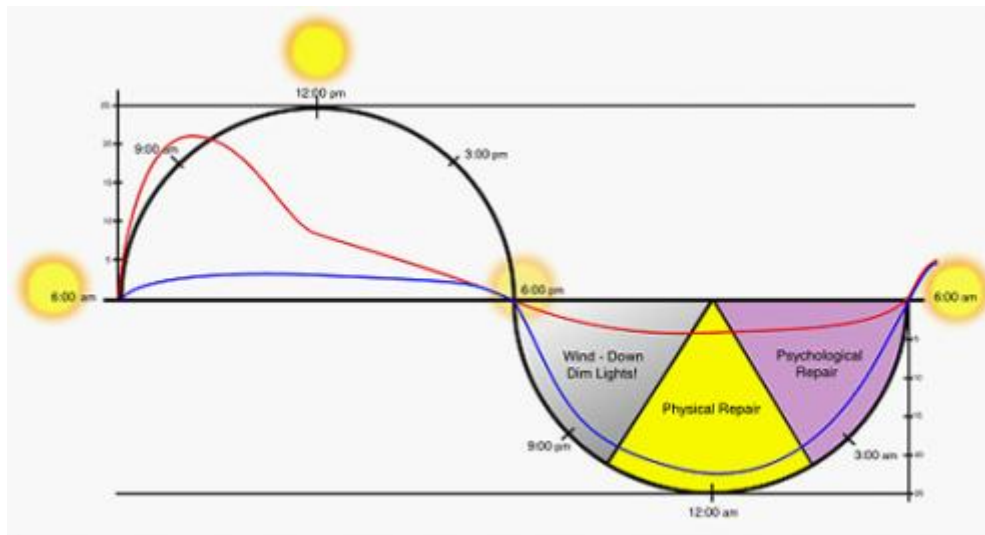


When enough light stimulates the eyes, regardless of the source, a signal is sent to your brain to tell you its morning. Your brain in response to the light then activates your hormonal system which naturally releases cortisol. Light is a form of electromagnetic stress, a little one but a form of stress that activates the release of cortisol, an activating hormone, and prepares the body for movement and our daily activities.

As the sun continues to rise and our body experiences more stress through light, our cortisol levels also will continue to rise and they will peak around 9am. They continue to stay high up until around 12 and begin to drop in the afternoon and continue to do so till after the sun goes down. As the day goes on our stress hormones decrease. Cortisol levels drop so that it can allow for the release of melatonin and increase levels of growth and repair hormones. From sunset onward, our bodies are designed to wind down and our bodies will increase the production of growth and repair hormones.

At around 10pm, **IF** we start our sleep, our body then begins its physical repair. This is a very important phase especially for those that have been doing any kind of physical exercise throughout the day. The **physical repair cycle** is from about **10-2am**. Your muscles need this

time to get the best results for repair and growth. However, if you are someone that goes to bed at 12 then you will only get 2 hours of physical repair. From **2-6am** most of our immune/ repair energies are used for **psychological repair**. This has a lot to do with brain function and neurological repair and a loss of sleep in this time can result in increased headaches, personality and neurological disorders and musculoskeletal injuries.



Things that disrupt this process would be working late, having artificial light, drinking coffee, eating late, watching TV and reading before bed with a bright light. These are all reasons as to why you may be experiencing problems or disruptions to your sleep/wake cycles. Artificial light and watching TV are electromagnetic stresses which the brain interprets as sunlight. This keeps the cortisol levels up in the body when they should be going down.

Cortisol takes HOURS to leave the blood stream. Because the levels are high it prevents the normal release of **melatonin** and other growth/immune hormones which will give your immune system less time to repair. Too much exposure to stress before bed can also lead to adrenal fatigue, which is NOT GOOD, and leads to a cascade of hormonal and immunity issues. Adrenal fatigue is common among those that take too much caffeine, cigarettes, pharmaceutical and other drugs, and stimulants. This leads to the adrenal glands being constantly stressed by having to produce activating hormones like cortisol. Symptoms from this are things like chronic fatigue syndrome, viral infections, headaches and bacterial and fungal infections.

Depriving your body of its natural circadian rhythm dramatically affects your quality of life and is a MAJOR contributing factor in your health and longevity. **Sleep deprivation affects your health in so many ways ~ hormonal and metabolic imbalances, accelerated aging, high blood pressure, obesity, memory dysfunction, is a factor in the onset of diabetes, headaches, neck aches, low energy levels, poor recovery and decreased concentration.** It can be a challenge getting to bed on time, I know, but it's absolutely worth all of the benefits..... So GO TO BED, look great, feel great!!!

More on the amazing melatonin next time..... Thanks for reading and sweet dreams!

*Jessica*