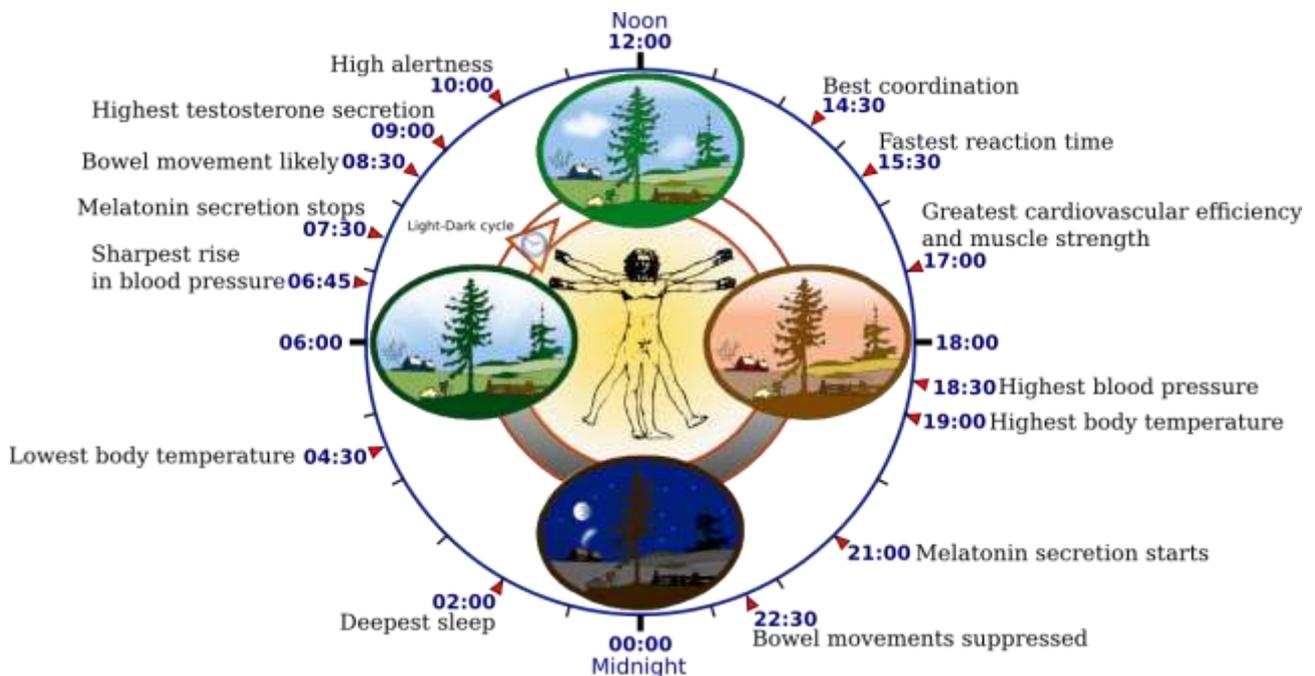
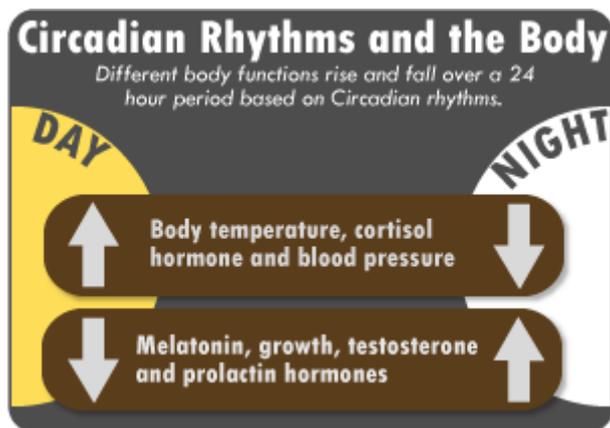


# Circadian Rhythms



- Living organisms have evolved an internal biological clock, called the Circadian rhythm, to help their bodies adapt to the daily cycle of day and night (light and dark) as the Earth rotates every 24 hours.
- The term 'circadian' comes from the Latin words for about (circa) a day (diem).
- Circadian rhythms are controlled by "clock genes" that carry the genetic instructions to produce proteins. The levels of these proteins rise and fall in rhythmic patterns. These oscillating biochemical signals control various functions, including when we sleep and rest, and when we are awake and active. Circadian rhythms also control body temperature, heart activity, hormone secretion, blood pressure, oxygen consumption, metabolism and many other functions.
- A biological clock has three parts:
  - A way to receive light, temperature or other input from the environment to set the clock
  - The clock itself, which is a chemical timekeeping mechanism
  - Genes that help the clock control the activity of other genes.
- A note about attention:  
A person's attention is worst between 02.00 and 06.00 and between 14.00 and 18.00 hours. It tends to be much better between 07.00 and 14.00 hours, and between 19.00 and 21.00.



This document forms part of my materials developed for HELM  
See [www.clairenewton.co.za/helm.html](http://www.clairenewton.co.za/helm.html) to download a copy.

*Claire Newton*  
Psychologist | Speaker | Trainer | Coach | Hat Lover

Phone: +27 (0)31 764 2616  
Mobile: +27 (0)82 491 1136  
Email: [claire@clairenewton.co.za](mailto:claire@clairenewton.co.za)

[www.clairenewton.co.za](http://www.clairenewton.co.za)

Address: 3 Impunzi Place, Kloof, 3610, South Africa