

# Circadian Rhythms During Pregnancy

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## **Abstract**

Adaptations to our environment are of two types: reactive, in which the adaptation follows an environmental change, and predictive, in which the organism anticipates the environmental change before it takes place. We live in an organized environment in which day and night, seasons, and tides alternate. These events repeat themselves with a given frequency, and organisms living on earth successfully adapt to them in a predictive fashion. The overt expression of these adaptations are cyclic changes in physiological processes known as circadian, tidal, and seasonal rhythms. Circadian rhythms are predictive adaptations to the daily periods of light and dark (day and night) induced by rotation of the earth around its axis (1). They are loosely defined as changes in a physiological function with a period of approximately 24 h. Their presence is established by obtaining frequent measurements of a variable over a period of 24 or 48 h; the data are then analyzed by standard statistical methods such as analysis of variance for repeated measures, lineal contrast analysis, or by fitting a mathematical function to the data such as cosinor analysis or Fourier analysis (2).