

BIOLOGICAL CLOCKS

A biological clock is an internal timing system that continues without any external cues and controls the activities of plants and animals.

BIOLOGICAL RHYTHMS

Because the function of a biological clock is to anticipate environmental changes they tend to be set to environmental rhythms such as daily, tidal and seasonal changes.

CIRCADIAN RHYTHMS

Circadian - daily activity (24 hours)

The rotation of earth about its axis causes a day/night cycle. Sleeping, feeding, changes in body temperature, etc usually exhibit daily cycles. There are three types of circadian rhythms:

1. **DIURNAL**: Active by day
2. **NOCTURNAL**: Active by night
3. **CORPUSCULAR**: Active during twilight hours

Most animals are able to adjust their physiology, behaviour and life cycles to the upcoming events/conditions.

OWLS

Owls begin to stir in the late afternoon and evening, awaiting the emergence of small mammals at dusk.

GROUND SQUIRRELS

Ground squirrels gather rations and pack on fat reserves in the fall in preparation for cold winters spent underground.

HUMAN CORE BODY TEMPERATURE

Human core body temperature cycles with a low during the middle of their sleep cycle and high around lunch time and early evening.

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