

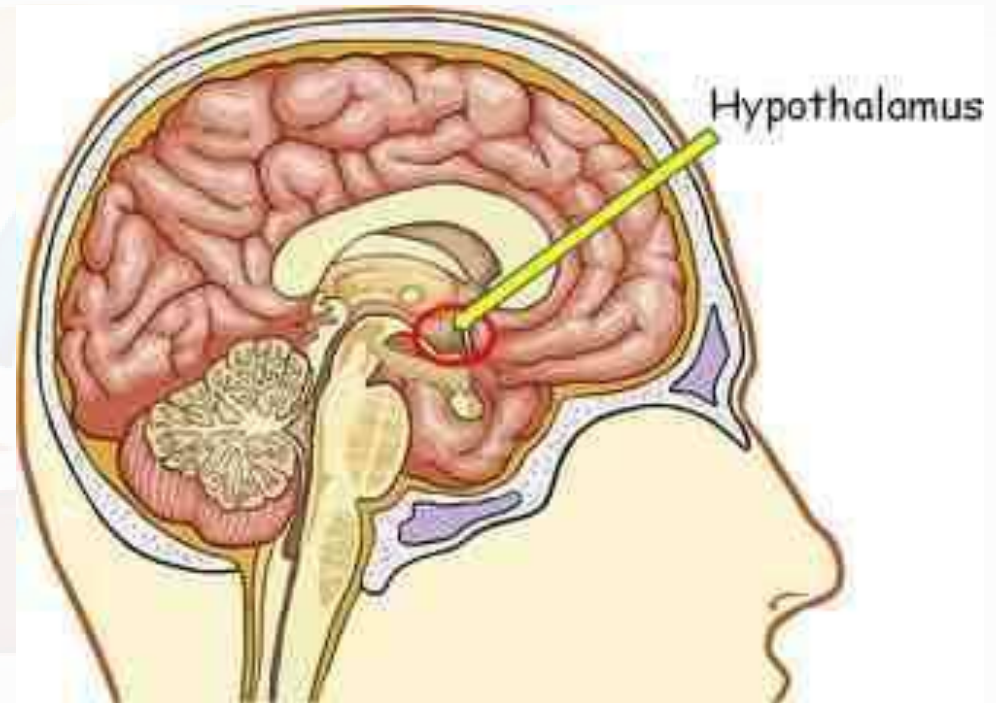
The logo of Galgotias University, featuring a stylized 'G' composed of several curved, overlapping bands in shades of yellow, blue, and red.

# **Hypothalamus**

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# Hypothalamus

- Part of the brain
- Present in the posterior part of
- the forebrain
- Connects the midbrain with the hemisphere
- And encloses the third ventricle
- Extends from optic chiasma to Mamillary body
- Formed by a group of nuclei in the wall and floor of 3<sup>rd</sup> ventricle



# Functions

- Concerned mainly with homeostasis of the body
- It regulates many vital functions of the body like endocrine functions, visceral functions, metabolic activities, hunger, thirst, sleep, wakefulness, emotion, sexual functions, etc

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# OTHER FUNCTIONS

- Role in emotional and behavior changes
- Regulation of sexual function
- Role in response to smell
- Role in circadian rhythm

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# PHYSIOLOGY

- 1. DIABETES INSIPIDUS

Characterized by excretion of large quantity of water through urine.

- 2. DYSTROPHIA ADIPOSEGENITALIS

Characterized by increased appetite and depressed secretion of gonadotropin

Obesity and sexual infantilism

Associated with dwarfism (if the condition occurs during growing period)

It is also called Frohlich's syndrome.

### 3. KALLMANN'S SYNDROME

Is a genetic disorder characterized by hypogonadism associated with anosmia (loss of olfactory sensation) or hyponmia (decreased olfactory sensation).

- It is also called hypogonadotropic hypogonadism
- since it occurs due to deficiency of gonadotropin releasing hormones secreted by hypothalamus

### 4. LAURENCE-MOON-BIEDL SYNDROME

- Characterized by moon face, obesity, polydactylism, mental retardation and hypogonadism.

## 5. NARCOLEPSY

- Abnormal sleep pattern.
- Sudden attack of uncontrollable desire for sleep and, the person suddenly falls asleep
- It occurs in the daytime
- The sleep may resemble the normal sleep
- Duration of sleep is very short. It may be from few sec. to 20 minutes.
- In night, sleep may be normal but is disturbed or there may be insomnia

## 6. CATAPLEXY

- It is the sudden uncontrolled outbursts of emotion
- Associated with narcolepsy.
- The person becomes completely exhausted with muscular weakness.
- The attack is brief and last for few seconds to a few minutes,
- The consciousness is not lost.

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# References

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- Textbook- Lehninger
- Textbook- Lodish