

AP PSYCHOLOGY

ENDOCRINE SYSTEM



Nervous VS Endocrine

→ uses neurons

→ Sends electrical impulses

→ fast

→ short-lived effects

→ uses hormones

→ travels through bloodstream

→ slow

→ longlasting effects

Text VS mail

MAJOR GLANDS 1

Hypothalamus : links nervous & endocrine system , controls pituitary gland

Pituitary gland : 'master gland' & controls growth

→ hormones : growth hormone , oxytocin

Thyroid : regulates metabolism

MAJOR GLANDS 2

Adrenal glands : releases hormones for fight or flight response

→ hormones: adrenaline, epinephrine

Pancreas : regulates blood sugar levels

→ hormones: insulin, pancreas

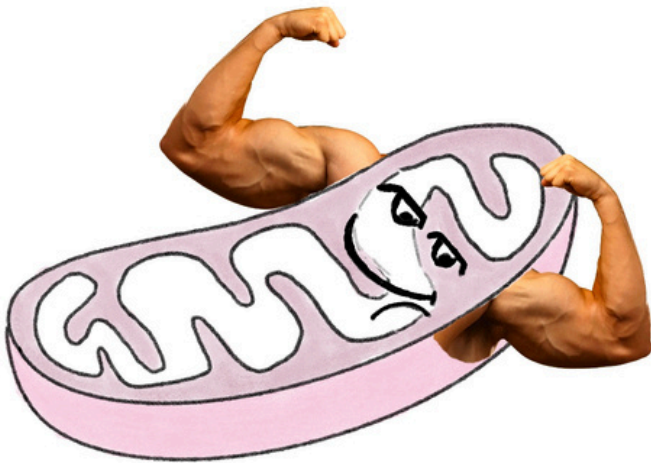
Gonads : produces sex hormones

→ hormones: estrogen, progesterone, testosterone

AP PSYCHOLOGY

BRAIN STRUCTURE

REVIEW



I. HINDBRAIN

→ survival center

- **medulla**: controls heartbeat, breathing, & vital functions
- **pons**: coordinates movement & signals in brain, involved in sleep/arousal
- **cerebellum**: balance, coordination, & muscle movement

2. LIMBIC SYSTEM

→ emotion + memory

- **amygdala**: fear & aggression
- **hippocampus**: long term memory formation
- **thalamus**: routes incoming sensory info
- **hypothalamus**: regulates hunger, thirst, body temperature, links to endocrine system

3. CEREBRAL CORTEX

→ 4 lobes

- **Frontal lobe**: decision making, planning, personality, motor control
- **Parietal lobe**: touch/spatial processing, body awareness
- **Temporal lobe**: hearing & language processing
- **Occipital lobe**: vision → think "O" as in shape of the eye

LANGUAGE

→ 2 major areas

- Brocas area: located in frontal lobe, controls speech PRODUCTION
- Wernicke's area: located in temporal lobe, controls speech COMPREHENSION

HEMISPHERES

→ 2 major ones, left & right

Left

→ language
& logic

Right

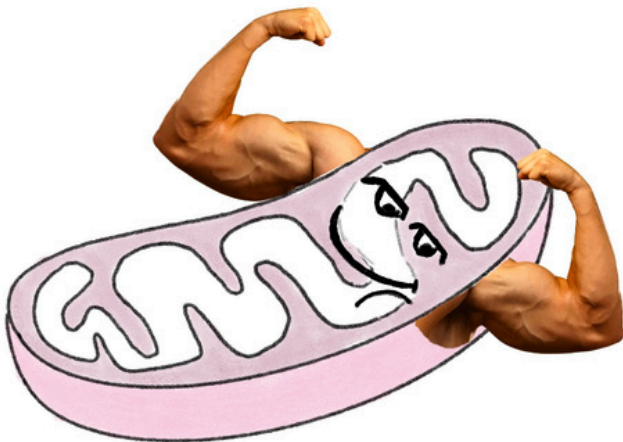
→ spatial &
creative processing

- **corpus callosum**: band of fibers connecting hemispheres

AP PSYCHOLOGY

SLEEP

REVIEW



BASICS

→ full sleep cycle = 90 mins
• repeats 4-6 times / night

→ cycle consists of:

NREM (3 stages), & REM

NREM STAGES

Stage 1: light sleep, falling / twitching
sensations → theta waves

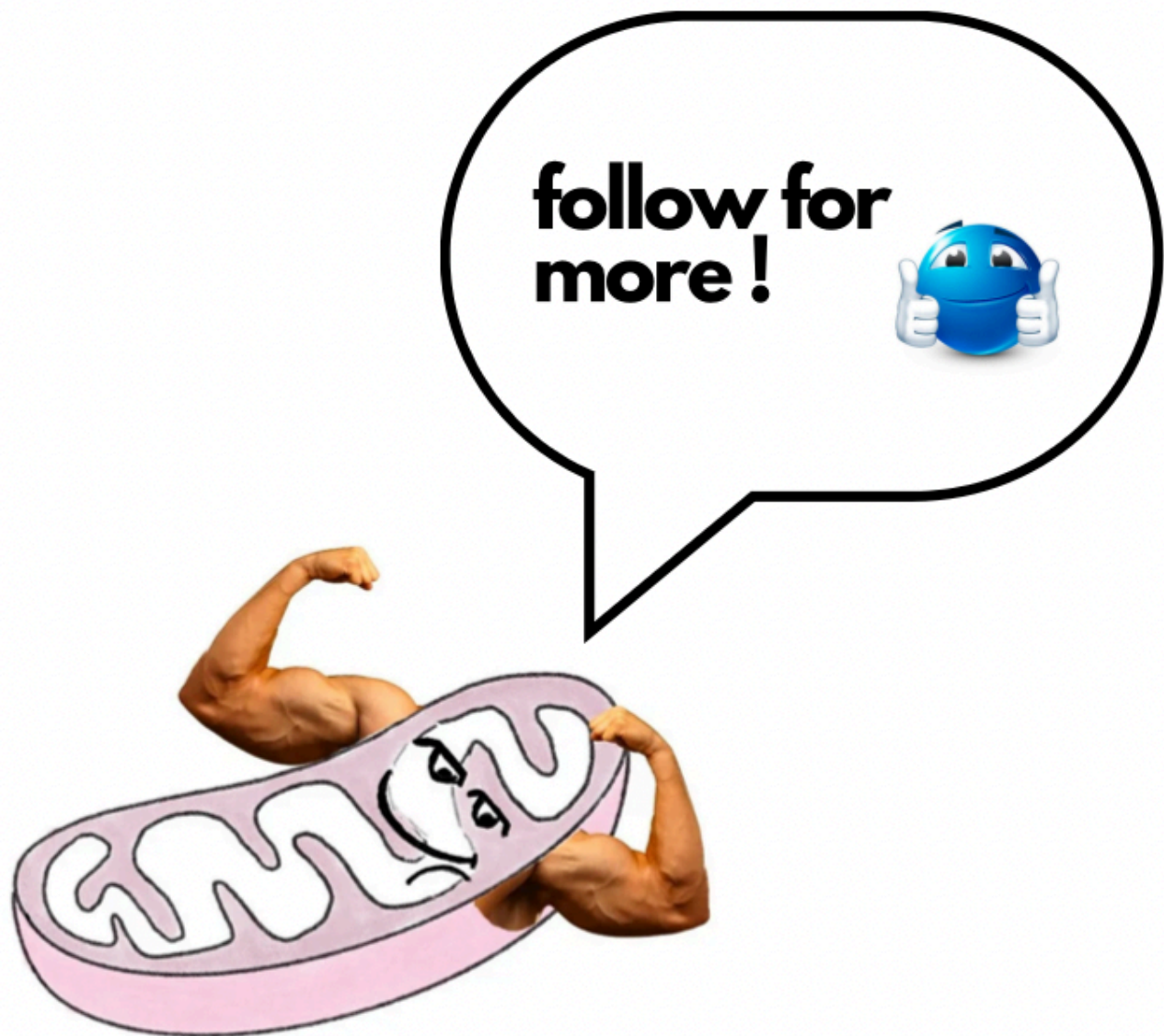
Stage 2: majority of sleep time,
body temp drops
→ sleep spindles & K-complexes

Stage 3: deep sleep, body repairs itself
→ delta waves

REM SLEEP

rapid ↑
movement ↑
R E M
↓
eye

- brain waves look similar to being awake
- dreaming, voluntary muscles "shut off"



@mightochondria 
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