THE STRUCTURES OF NEUROTRANSMITTERS

 STRUCTURE KEY:  • Carbon atom  ○ Hydrogen atom  ◊ Oxygen atom  ◊ Nitrogen atom  ◊ Rest of molecule

ADRENALINE
Fight or flight neurotransmitter

Produced in stressful or exciting situations. Increases heart rate & blood flow, leading to a physical boost & heightened awareness.

NORADRENALINE
Concentration neurotransmitter

Affects attention & responding actions in the brain, & involved in fight or flight response. Contracts blood vessels, increasing blood flow.

DOPAMINE
Pleasure neurotransmitter

Feelings of pleasure, and also addiction, movement, and motivation. People repeat behaviours that lead to dopamine release.

SEROTONIN
Mood neurotransmitter

Contributes to well-being & happiness; helps sleep cycle & digestive system regulation. Affected by exercise & light exposure.

GABA
Calming neurotransmitter

Calms firing nerves in CNS. High levels improve focus; low levels cause anxiety. Also contributes to motor control & vision.

ACETYLCHOLINE
Learning neurotransmitter

Involved in thought, learning, & memory. Activates muscle action in the body. Also associated with attention and awakening.

GLUTAMATE
Memory neurotransmitter

Most common brain neurotransmitter. Involved in learning & memory, regulates development & creation of nerve contacts.

ENDORPHINS
Euphoria neurotransmitters

Released during exercise, excitement, & sex, producing well-being & euphoria, reducing pain. Biologically active section shown.

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