



FLASH CARDS

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Kalat's Book
Chapter 12
Alphabetical

ACTH

ACTH

Adrenocorticotrophic hormone. When sense stress or danger, hypothalamus triggers pituitary to release ACTH, which triggers adrenals to release cortisol.

antibody

antibody

Also called an immunoglobulin. Protein made by B-cells in the immune system to neutralize bacteria and viruses. Secreted by plasma cells.

antigen

antigen

Unique part of bacteria or virus; proteins on cell surface. If antigen's are dif. from rest of body, attacked by immune system. An antigen's epitope (key) is matched with antibody's paratope (lock).

Once antibody & antigen target are bound, immune system neutralizes target object.

bed nucleus of the stria
terminalis

bed nucleus of the stria terminalis

Limbic structure. Responds to threatening stimuli. Provides generalized response; show fear when new situations are similar to prior traumatic situations. Don't have to learn fear for each specific event.

Behavioral Activation System (BAS)

Behavioral Activation System (BAS)

Neural circuits in left hemisphere respond when happy or socially outgoing. Regulates sensitivity to reward.

Behavioral Inhibition System (BIS)

Behavioral Inhibition System (BIS)

Neural circuits in right hemisphere respond when fearful or disgusted outgoing.
Increases attention, inhibits response.
Regulates sensitivity to punishment.

behavioral medicine

behavioral medicine

Interdisciplinary approach; combines medical and psychological components. Includes applied therapies such as biofeedback, hypnosis, diet and exercise problems.

benzodiazepine

benzodiazepine

Used to treat anxiety, seizures and insomnia.
Bind to GABAA receptor to increase GABA availability. Includes Valium, Xanax and clonazepam.

cortisol

cortisol

Primary stress hormone, released from adrenals. Small amounts increase memory consolidation; too much kills neurons (overstimulation).

cytokines

cytokines

Small proteins that can cross BBB. Influence neural function, cell-cell communication and enhance immune responses.

diazepam-binding inhibitor
(DBI)

diazepam-binding inhibitor (DBI)

Regulated by hormones; regulates GABA receptors and lipid metabolism.

GABAA receptor

GABAA receptor

Inotropic GABA receptor. Target of anti-anxiety drugs; increases inhibitory effect to reduce anxiety.

general adaptation syndrome

general adaptation syndrome

Assumes a limited supply of adaptive energy to handle stress. Three stages: alarm (activate systems and prepare to fight), resistance (no immediate threat but alert & making repairs) & exhaustion (vulnerable, tired & burnt-out).

HPA axis

HPA axis

Interactions between hypothalamus, pituitary and adrenals. All three are impacted by prolonged stress.

5-HIAA

5-HIAA

5-hydroxyindoleacetic acid. Metabolizes serotonin. Measure urine levels to predict serotonin turnover & screen for tumors. Low levels correlated with aggressive behavior (including violent suicides). High levels correlate with autism.

immune system

immune system

Body's defense system against infection diseases, doesn't include brain. Includes white blood cells, B cells, antibodies, antigens, T cells and natural killer cells. Can mistakenly attack normal cells (autoimmune diseases).

James-Lange theory

James-Lange theory

Theory of emotion; I see a bear, run and then feel afraid. Emotions are labels we give to autonomic arousal cues & physical actions.

leukocyte

leukocyte

White blood cells; made in bone marrow, ~1% of blood volume (increase w/ infections). Live about 4 days. Five types: neutrophil (first responders to bacteria & fungus), eosinophil (fight parasites), basophil (release histamine), lymphocytes (B cells, T cells & natural killer cells), & monocytes (present pathogens to T cells).

limbic system

limbic system

Complex network of structures under cortex, on each side of thalamus. Includes insular cortex (feeling disgust), hippocampus, amygdala, fornix). Involved in emotion, motivation, smell, long-term memory and emotional memories.

panic attack

panic attack

Sudden but temporal experience of extreme fear and anxiety. Characterized by rapid breathing, heart rate, faint. Feels like heart attack. Peaks in about 10 minutes.

panic disorder

panic disorder

Repeated attacks of anxiety. More common in women and teens. Characterized by sweating, trembling, chest pain, palpitations and fear of dying.

PTSD

PTSD

Post-traumatic stress disorder. More common in those who have lower cortisol levels. Symptoms last more than a month after a traumatic event (observed or experienced), include flashbacks, nightmares, avoidance, and hyperalertness.

Psychoneuroimmunology

Psychoneuroimmunology

Interaction between psychology, physiology & neuroscience. Study of interaction between immune system, CNS and personal experiences.

pure autonomic failure

pure autonomic failure

Wide variety of symptoms as a result of autonomic nervous system dysfunction. Can include little or no changes in autonomic response to stress, less intense emotions, fainting or idiopathic orthostatic hypotension.

startle reflex

startle reflex

Found in many species. Reflexive reaction to sudden unexpected noise, quick movements. Protects the back of the neck from attacks.

stress

stress

Generalized, nonspecific response to
perceived threats.

turnover

turnover

General term for replacement. Includes replacing old cells, refreshing neurotransmitter levels, etc.

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