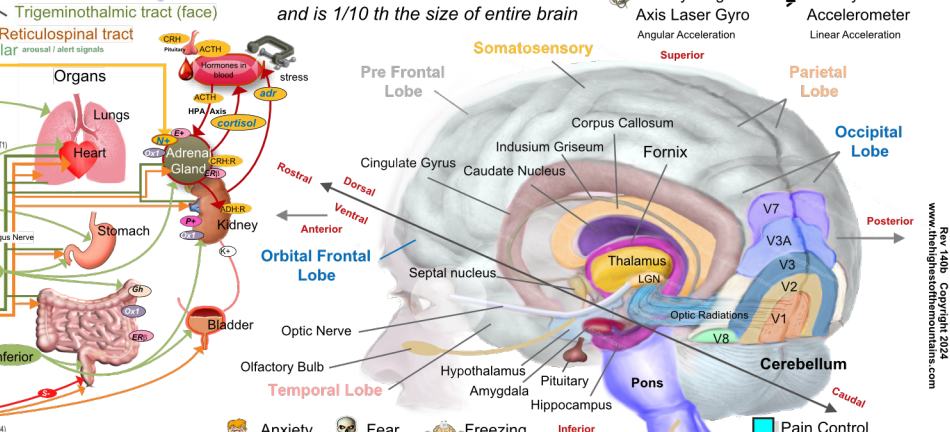
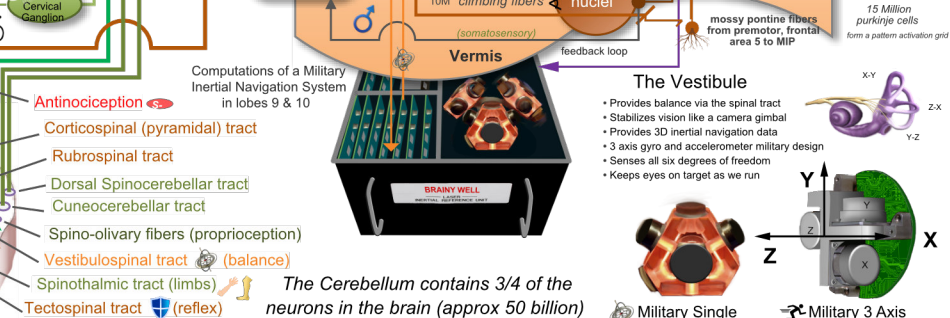
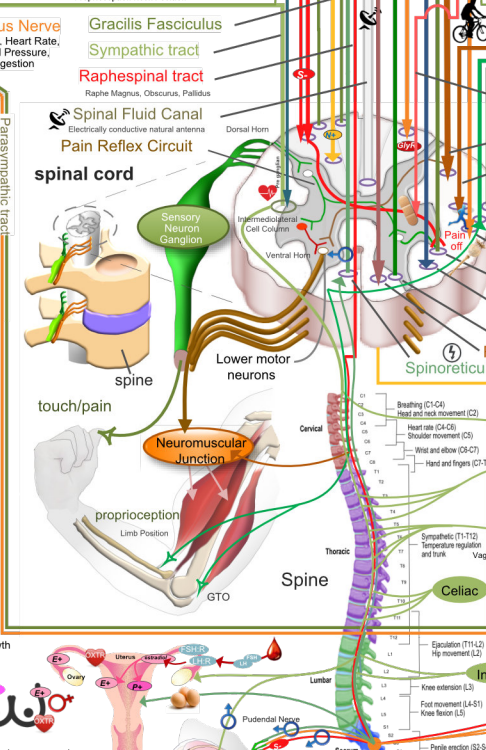


- ### Excitatory Neurotransmitters (+)
- Glutamate** (G_A): learning, memory
 - Norepinephrine** (NE): anxiety, energy (also called noradrenaline)
 - Epinephrine** (EPI): adrenaline, stress, heart rate/blood pressure
 - Acetylcholine** (ACh): learning, motor control
 - Orexin** (ORX): feeding behavior, arousal, reducing pain
 - Dopamine** (DA): focus, desire, love, music, motivation, exercise
- ### Inhibitory Neurotransmitters (-)
- GABA** (G_A): calming, muscle tone
 - Serotonin** (5-HT): regulate appetite, mood, learning, sleep, depression
 - Glycine** (GLY): regulate appetite, mood
- ### Hormones
- Progesterone** (P₄): growth hormone
 - Oxytocin** (OXT): intimacy, maternal bonding
 - Testosterone** (T₄): raise blood press, temp
 - Cortisol** (COR): stimulates adrenal glands to produce cortisol (stress)
 - Prolactin** (PRL): sexual/reproduction
 - Estrogen** (E₂): stimulates production of eggs/estrogen
 - Ghrelin** (GHR): stimulates FSH + LH
 - Leptin** (LEP): development & regulation of the female reproductive system
 - Insulin** (INS): inhibits food intake
 - Nitric Oxide** (NO): promotes glucose uptake (pancreas)
 - Melatonin** (MEL): increases dopamine release
- ### Receptor Regulators
- Estrogen Receptor** (ER): ERα: Breast cancer cells, endometrium, ovarian stromal; ERβ: kidney, brain, bone, heart, lungs, intestinal mucosa, prostate
 - Serotonin Receptor** (5-HT): 5-HT_{2C} in BLA regulate mood, anxiety, feeding, reproductive behavior
 - Gonadotropin Releasing Hormone** (GHRH): causes drowsiness
 - Acetylcholine Receptor** (AChR): muscarinic receptor
 - Adenosine Receptor** (ADORA): caffeine sensitive area
 - Glutamate Receptor** (AMPA): N-methyl-D-aspartic acid
 - Dopamine Receptor** (D₁-D₅): mu, delta, nociception, kappa & zeta
 - Opioid Receptor** (OR): mu, delta, kappa, zeta



- ### Neurotransmitter Receptors
- 5-HT_{1A}**: Serotonin
 - 5-HT_{2A}**: Serotonin
 - 5-HT_{2B}**: Serotonin
 - 5-HT_{2C}**: Serotonin
 - 5-HT₃**: Serotonin
 - 5-HT₄**: Serotonin
 - 5-HT₆**: Serotonin
 - 5-HT₇**: Serotonin
 - α₁**: Norepinephrine
 - α₂**: Norepinephrine
 - β₁**: Norepinephrine
 - β₂**: Norepinephrine
 - β₃**: Norepinephrine
 - D₁**: Dopamine
 - D₂**: Dopamine
 - D₃**: Dopamine
 - D₄**: Dopamine
 - D₅**: Dopamine
 - M₁**: Acetylcholine
 - M₂**: Acetylcholine
 - M₃**: Acetylcholine
 - M₄**: Acetylcholine
 - M₅**: Acetylcholine
 - NMDA**: Glutamate
 - AMPA**: Glutamate
 - Kainate**: Glutamate
 - GABA_A**: GABA
 - GABA_B**: GABA
 - CB₁**: Cannabinoids
 - CB₂**: Cannabinoids
- ### Associated Functions and Behaviors
- Anxiety
 - Fear
 - Freezing
 - Temptation/Addiction
 - Digestion
 - Immune System
 - Heart/Blood Pressure
 - Punishment Behaviors
 - Nociception Pain Signal Blocker
 - Face Recognition
 - Taste Relay
 - Saliva
 - Mirror (copycat) Neurons
 - Cerebellum Feedback
 - Sense of Direction
 - Reward Behaviors
 - Fear Extinction Learning
 - Female Differences
 - Head Direction
 - Female Arousal
 - Female Sexual Drive Off
 - Male Sexual Drive Off
 - Maternal Care/ Breastmilk
 - Synchronizes Memory Storage & Trans
 - Hunger
 - Full Thirst
 - Alert System
 - HPA Blood Control
 - Pro-Isocortex
 - Defense Reflexes
 - Theta Rhythm
 - Circadian
 - Emotion
 - Depression
 - Thirst
 - Alert System
 - HPA Blood Control

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