| **Neurotransmitter** | **Effects of Too Much** | **Effects of Too Little** | **Ways Body Regulates** | **Natural Regulation Methods** |
| --- | --- | --- | --- | --- |
| Dopamine | Addictive behaviors, mania, psychosis | Depressed mood, fatigue, addiction | Regulate tyrosine hydroxylase activity, modulate firing rates of dopamine neurons | Exercise, get sunlight, take tyrosine supplements, avoid addictive drugs |
| Serotonin | Agitation, confusion, jitteriness | Anxiety, low mood, OCD tendencies | Adjust tryptophan hydroxylase levels, regulate serotonin transporters | Exposure to sunlight, physical activity, tryptophan-rich foods like turkey, probiotics |
| Acetylcholine | Muscle spasms, seizures, confusion | Cognitive decline, memory loss, confusion | Control choline acetyltransferase levels, regulate acetylcholinesterase activity | Consume choline-rich foods like eggs, use acetylcholinesterase inhibitors like huperzine A |
| Histamine | Increased allergies, low blood pressure, ulcers | Drowsiness, sluggishness, reduced arousal | Modify histidine decarboxylase levels, adjust histamine N-methyltransferase | Avoid histamine-releasing foods, antihistamines, natural diamine oxidase enzymes |
| Norepinephrine | Anxiety, elevated heart rate/blood pressure | Lack of attention and focus, low motivation | Regulate tyrosine hydroxylase, control norepinephrine transporters | Aerobic exercise, yoga, L-tyrosine supplements, avoid stimulants |
| GABA | Muscle weakness, sedation, impaired memory | Anxiety, insomnia, seizures | Modulate glutamic acid decarboxylase, regulate GABA transporters | Meditation, physical activity, natural GABA supplements like valerian root |
| Glutamate | Excitotoxicity, neuron damage, seizures | Cognitive deficits, psychosis, mood disorders | Control glutaminase and glutamate transporters | Magnesium supplements, memantine medication, avoid MSG |
| Glycine | Tremors, agitation, seizures | Insomnia, muscle spasticity, seizures | Regulate serine hydroxymethyltransferase, glycine transporters | Consume glycine-rich foods, take glycine supplements |
| Endorphins | Euphoria, sedation, slowed breathing | Increased pain sensitivity, mood disorders | Modulate prohormone convertases, regulate opioid receptors | Exercise, acupuncture, low-level pain stimulus |
| Oxytocin | Overtrust, uterine contractions, impaired cognition | Social deficits, anxiety, maternal bonding issues | Regulate CD38 enzyme, control oxytocin receptors | Social bonding activities, oxytocin nasal sprays |