

THIS APPROACH: When depleted serotonin or dopamine concentrations exist on an optimal diet, a relative nutritional deficiency of the naturally occurring aromatic amino acids or cofactors is always present.™

NeuroResearch

A Medical Education Company

DRUG-INDUCED

Illustrations courtesy National Institute of Drug Abuse division National Institute of Health

monoamine related relative nutritional deficiency™

A relative nutritional deficiency occurs when an optimal diet does not meet the needs of the system.

When there is not enough (low, inadequate, depleted, deficient, or suboptimal)™ serotonin or dopamine concentrations on an optimal diet, a relative nutritional deficiency™ is always present.

The mechanism of action whereby reuptake inhibitor drugs deplete dopamine, norepinephrine, and epinephrine is illustrated in Figures 1-3. When reuptake inhibitor-induced depletion™ occurs on an optimal diet, a dopamine related relative nutritional deficiency™ (RND™) is always present.

Access a YouTube video on this topic.

CLICK ON: >>>> <https://youtu.be/mlgsk86k9fE>

Figure 1: Low synaptic serotonin or dopamine levels, on an optimal diet, this represents a relative nutritional deficiency™ of serotonin or dopamine precursors and cofactors.

Figure 2: Reuptake inhibition (yellow airplane) is blocking reuptake causing increase of serotonin and dopamine to move from the pre-synaptic neuron into the synapse.

Figure 3: The serotonin and dopamine molecules, while in a pre-synaptic neuron, is safe from enzymatic metabolism by the MAO and COMT systems. With redistribution into the synapse, there is increased metabolism (depletion). On an optimal diet, this depletion of serotonin or dopamine represents a drug-induced relative nutritional deficiency.

When serotonin or dopamine depletion (RND™) is great enough, a relative nutritional deficiency™ of serotonin or dopamine precursors or cofactors may occur.

Management of reuptake inhibitor-induced serotonin or dopamine related relative nutritional deficiency™ requires properly administered nutrients under the serotonin or dopamine protocol,™ respectively.™ Mastery of amino acid administration and amino acid side effects should be in place prior to starting the amino acids.



Figure 1: Low synaptic serotonin or dopamine concentrations

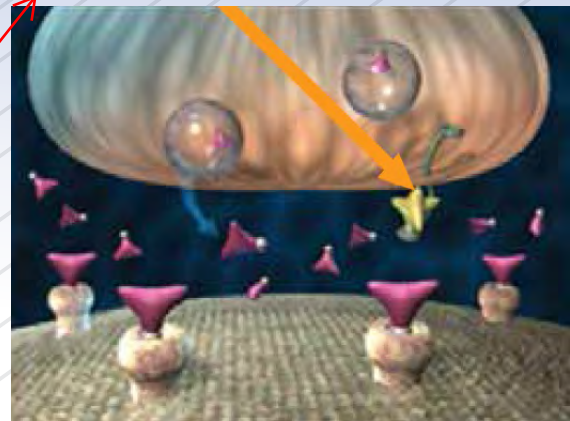


Figure 2: Reuptake inhibitors increase synaptic serotonin or dopamine.

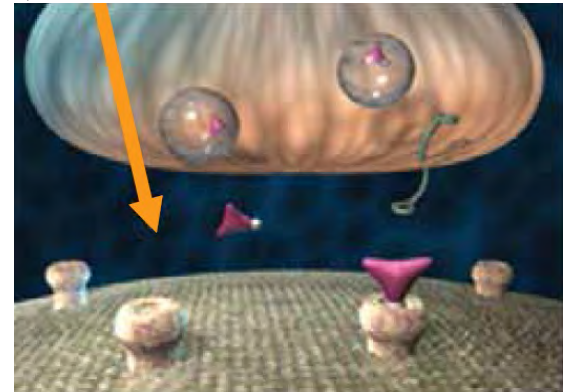


Figure 3: Increased synaptic (systemic) serotonin or dopamine contact with the MAO and COMT enzymes induces depletion (monoamine RND™).

Low or depleted serotonin on an optimal diet, use the serotonin protocol.

The Food and Drug Administration (FDA) has not evaluated these statements. These nutrients are not intended to diagnose, treat, cure, or prevent any disease.



M33@HINZMD.COM



1150 88TH AVE W., DULUTH, MN



+1-218-626-2220