

Basal ganglia

Important in voluntary movements and making postural adjustments.

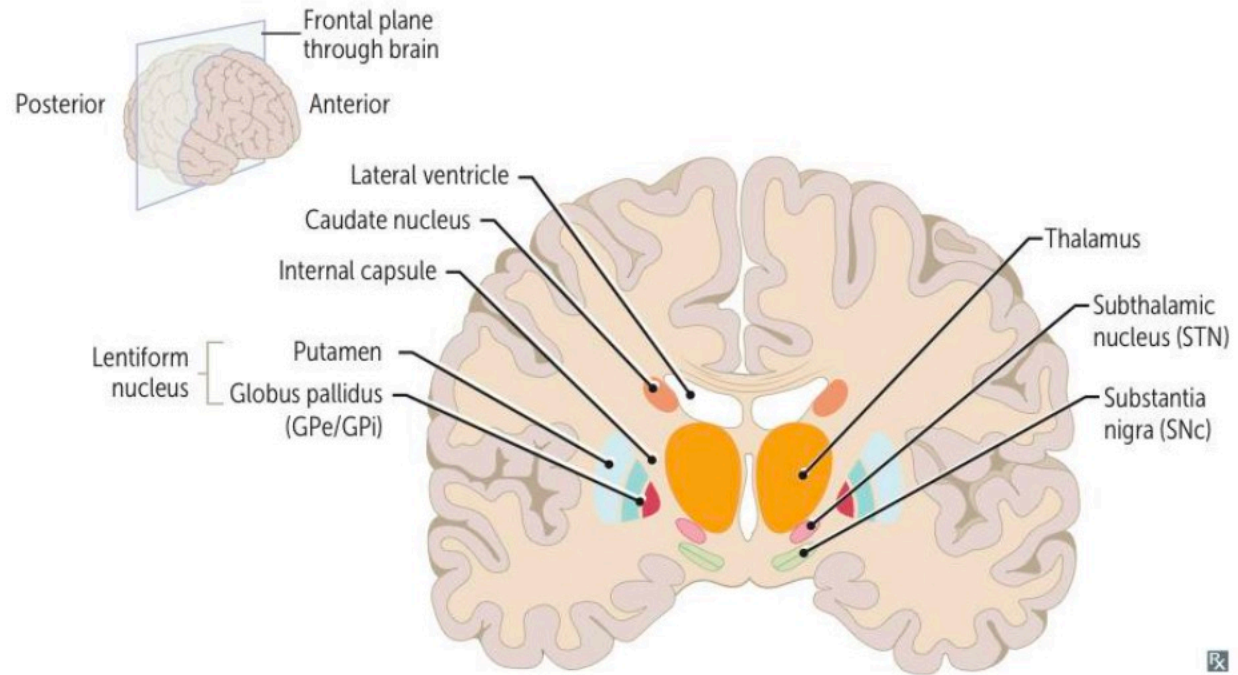
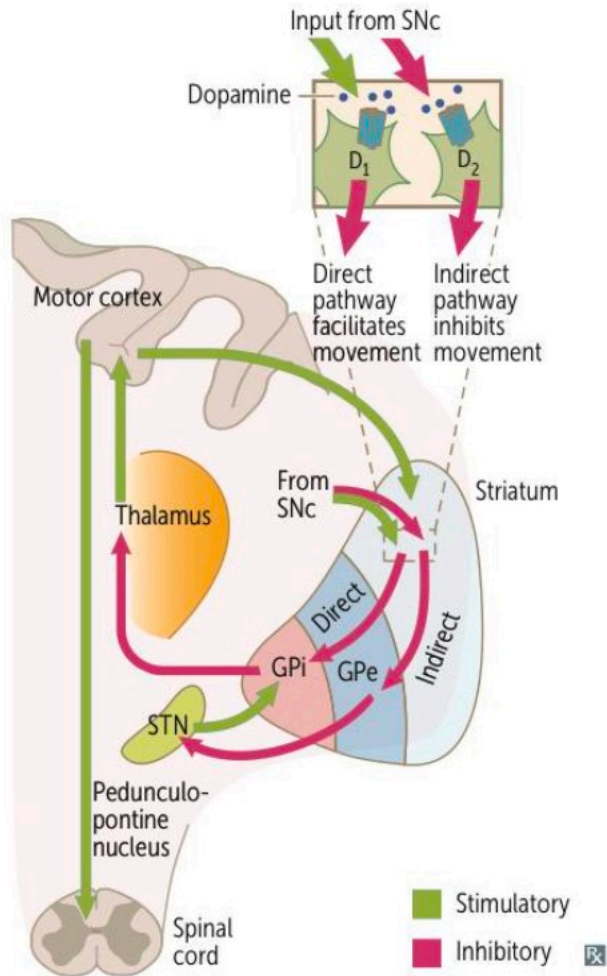
Receives cortical input, provides negative feedback to cortex to modulate movement.

Striatum = putamen (motor) + caudate (cognitive).

Lentiform = putamen + globus pallidus.

D₁-Receptor = DIRect pathway.

Indirect (D₂) = **I**nhibitory.



Direct (excitatory) pathway—SNc input stimulates the striatum, stimulating the release of GABA, which inhibits GABA release from the GPI, disinhibiting the thalamus via the GPI (↑ motion).

Indirect (inhibitory) pathway—SNc input stimulates the striatum, releasing GABA that disinhibits STN via GPe inhibition, and STN stimulates GPI to inhibit the thalamus (↓ motion).

Dopamine binds to D₁, stimulating the excitatory pathway, and to D₂, inhibiting the inhibitory pathway → ↑ motion.