Neurotransmitters and Drugs of the Dopaminergic Synapse

**Dopamine**
- Neurotransmitter, a chemical messenger
- Binds to dopamine receptor on post-synaptic receptor
- Recycled through dopamine transporter

**Cocaine**
- Binds to the dopamine transporter, increasing the time that dopamine remains in synapse

-Dopamine structure: HO-C-CH-CH(CH)_2CH_2NH_2
-Cocaine structure: CH_3\(\text{N-CH-CH}_2-\text{CH-CH}_2\text{CH-O-}\text{C-CH=CH-Ch}=\text{CH}_2\)