

RESEARCHING TOBACCO-NICOTINE

- ❖ As nicotine enters the body, it is distributed quickly through the bloodstream and can cross the blood-brain barrier.
- ❖ Nicotine reaches the brain in 8 second after the smoke is inhaled
- ❖ Nicotine reaches the central nervous system in about 3-5 min
- ❖ Nicotine acts on the central nervous system. The rapid effects of nicotine include:
 - Increases in blood pressure and heart rate
 - Faster respiration
 - Constriction of arteries
 - Stimulation of the central nervous system
- ❖ In the brain, limbic pathways that use the neurotransmitter dopamine are affected by nicotine and may be responsible for some of the addictive properties.
- ❖ Nicotine also releases dopamine in the brain regions that control pleasure and motivation
- ❖ Nicotine acts through the cholinergic nicotinic receptor
- ❖ Nicotine and its metabolites are being researched for the treatment of a number of disorders, including Parkinson's Disease

Important words:

- Cholinergic nicotinic receptors
- Bloodstream
- blood-brain barrier
- Neurotransmitter dopamine increases
- control pleasure

Useful:

- ✓ <http://www.webmd.com/content/article/96/103554.htm>
- ✓ <http://en.wikipedia.org/wiki/Nicotine>
- ✓ <http://en.wikipedia.org/wiki/Dopamine>
- ✓ <http://faculty.washington.edu/chudler/nic.html>
- ✓ <http://faculty.washington.edu/chudler/chnt1.html>
- ✓ <http://apu.sfn.org/skins/main/pdf/brainfacts/brainfacts.pdf>
- ✓ <http://www.benbest.com/science/anatmind/anatmd10.html>