NICOTINE ADDICTION

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Help me! I'm a slave to nicotine!
Addiction (n) : a condition of compulsive drug seeking and use, even in the face of negative consequences
**NEURON**

Information from other neurons

Dendrites receive signals from other neurons

Cell Body integrates the signals

Axon transmits signal to dendrites of other neurons

Information passed to other neurons
Nicotine

(Dopamine)

Dendrite
Release of Dopamine

Natural reward
Normal
Initial use

*This is the state the brain wants to be in most of the time

without Nicotine

with Nicotine

brain
Long-term use

*This is still the state the brain wants to be in most of the time without Nicotine.

Brain

with Nicotine

without nicotine
Long-term use

without Nicotine → brain → with Nicotine

without Nicotine
Major health problem in US

- More deaths are caused each year by tobacco use than by all deaths from human immunodeficiency virus (HIV), illegal drug use, alcohol use, motor vehicle injuries, suicides, and murders combined.

- Cigarette smoking is responsible for 1 in every 5 US deaths.

Normal Lung  Smoker’s Lung
Treatment

- The health benefits of smoking cessation are immediate and substantial -> reduced risk for cancers, heart disease, and stroke; increased life expectancy
It's drug addiction.