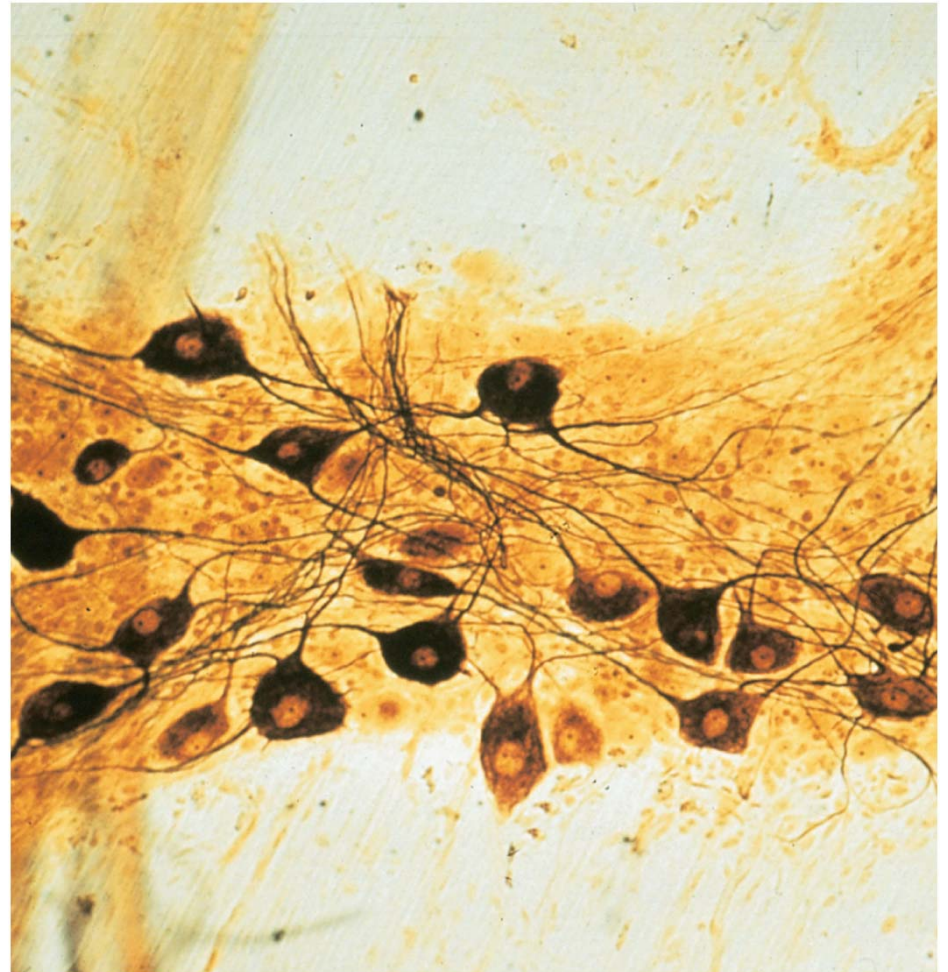


## Chapter 15 Drugs and the Nervous System



# Drugs and the Nervous System

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- **neuropharmacology** – study of effects of drugs on the nervous system
- **sympathomimetics** enhance sympathetic activity
  - stimulate receptors or increase norepinephrine release
    - cold medicines that dilate the bronchioles or constrict nasal blood vessels
- **sympatholytics** suppress sympathetic activity
  - block receptors or inhibit norepinephrine release
    - beta blockers reduce high BP interfering with effects of epinephrine/norepinephrine on heart and blood vessels

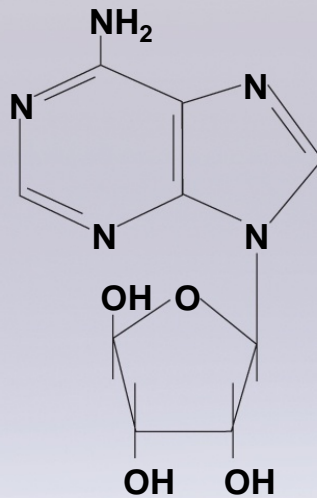
# Drugs and the Nervous System

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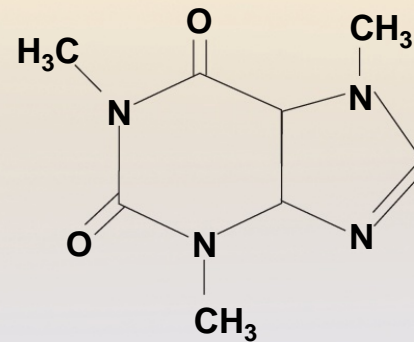
- **parasympathomimetics** enhance activity while **parasympatholytics** suppress activity
- many drugs also act on neurotransmitters in CNS
  - Prozac blocks reuptake of serotonin to prolong its mood-elevating effect
- **caffeine** competes with **adenosine** (the presence of which causes sleepiness) by binding to its receptors

# Adenosine and Caffeine

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Adenosine



Caffeine