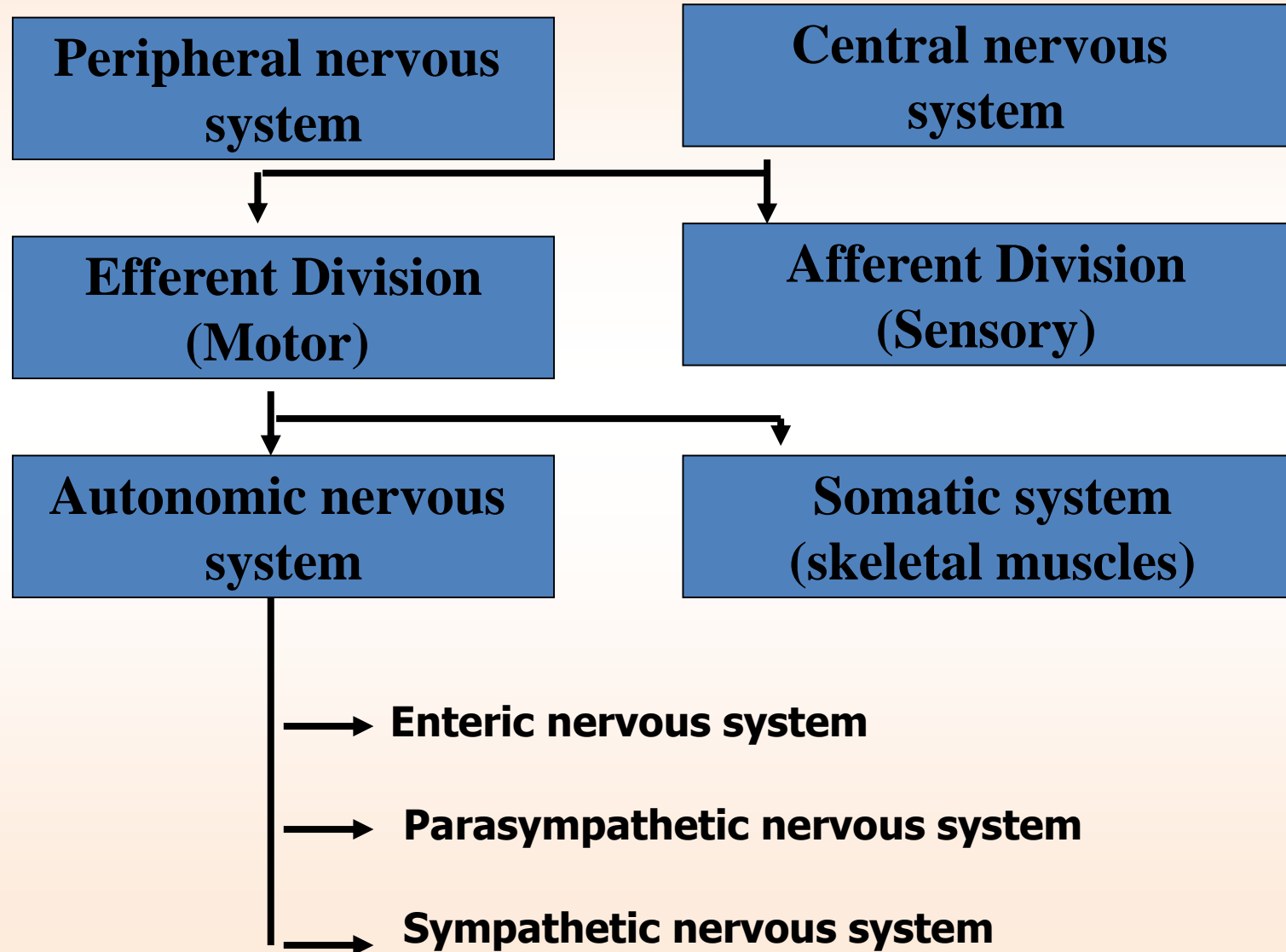


Nervous system



What are the differences between the somatic and the autonomic nervous system?

Somatic N.S

Control skeletal muscles

Voluntary

Somatic nerve is one fiber

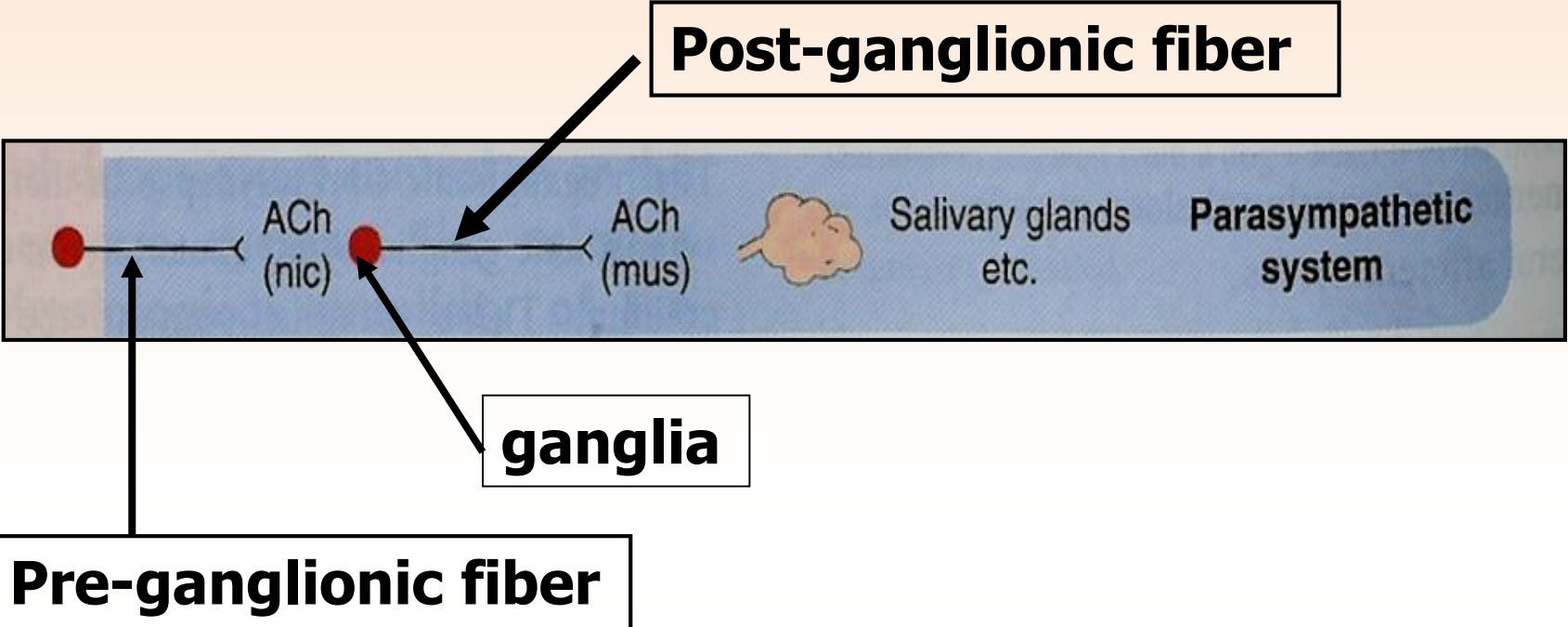
Autonomic N.S

Control internal viscera

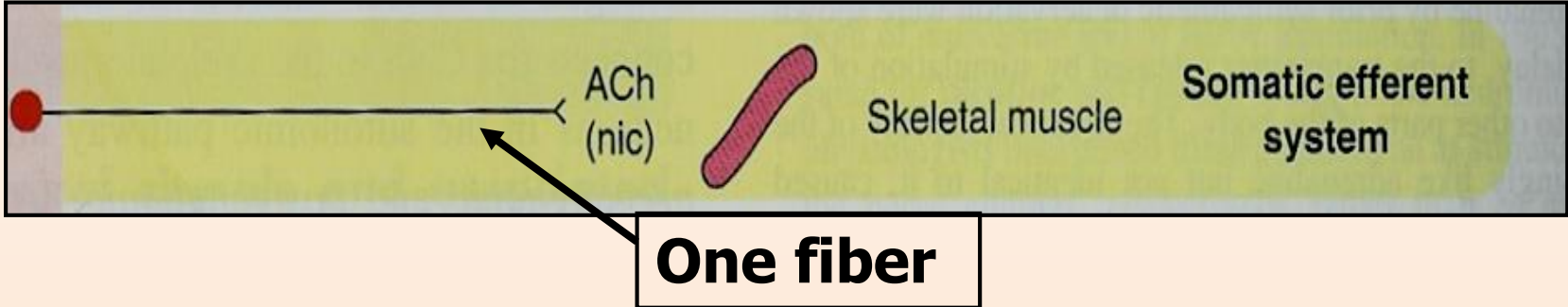
Involuntary

autonomic nerve is two fibers (*Preganglionic & Postganglionic*)

Autonomic nerve



Somatic nerve

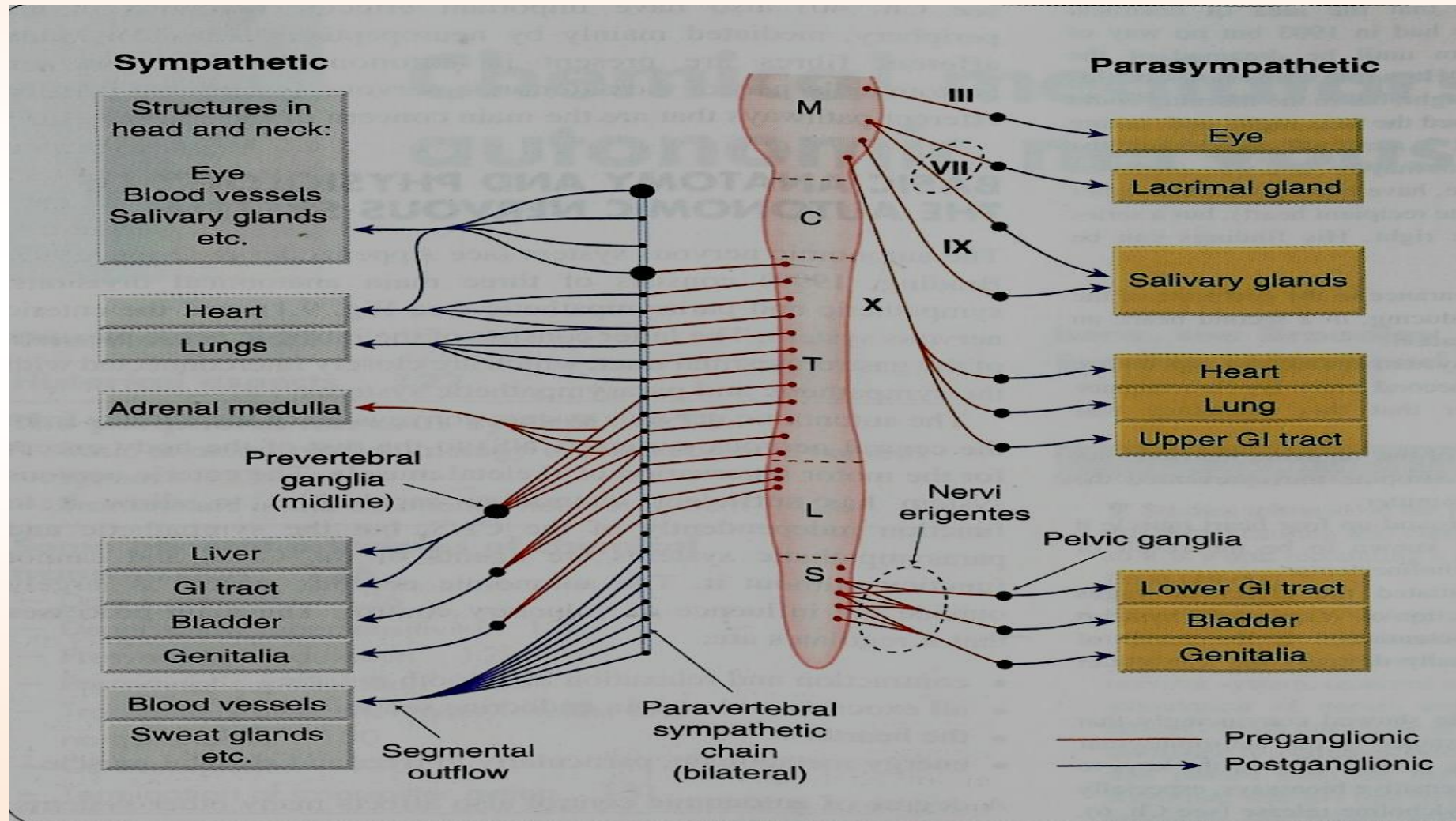


Division of Autonomic Nervous System

- **Sympathetic nervous system.**
- **Parasympathetic nervous system.**
- **Enteric nervous system.**

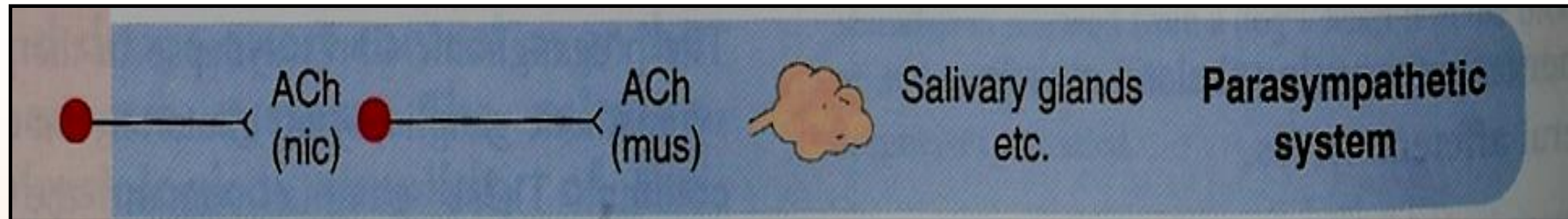
Parasympathetic Nervous System

Is a craniosacral outflow



Neurotransmitters

Neurotransmitter in parasympathetic nervous system or cholinergic system is **acetylcholine** and nerves are called **cholinergic nerves**



Cholinergic transmission

- **The release of neurotransmitter Ach from cholinergic nerves include the following steps:**
 - 1) Synthesis of Ach**
 - 2) Storage of Ach in storage vesicles**
 - 3) Release of Ach**
 - 4) Binding of Ach to postsynaptic receptors to give actions**

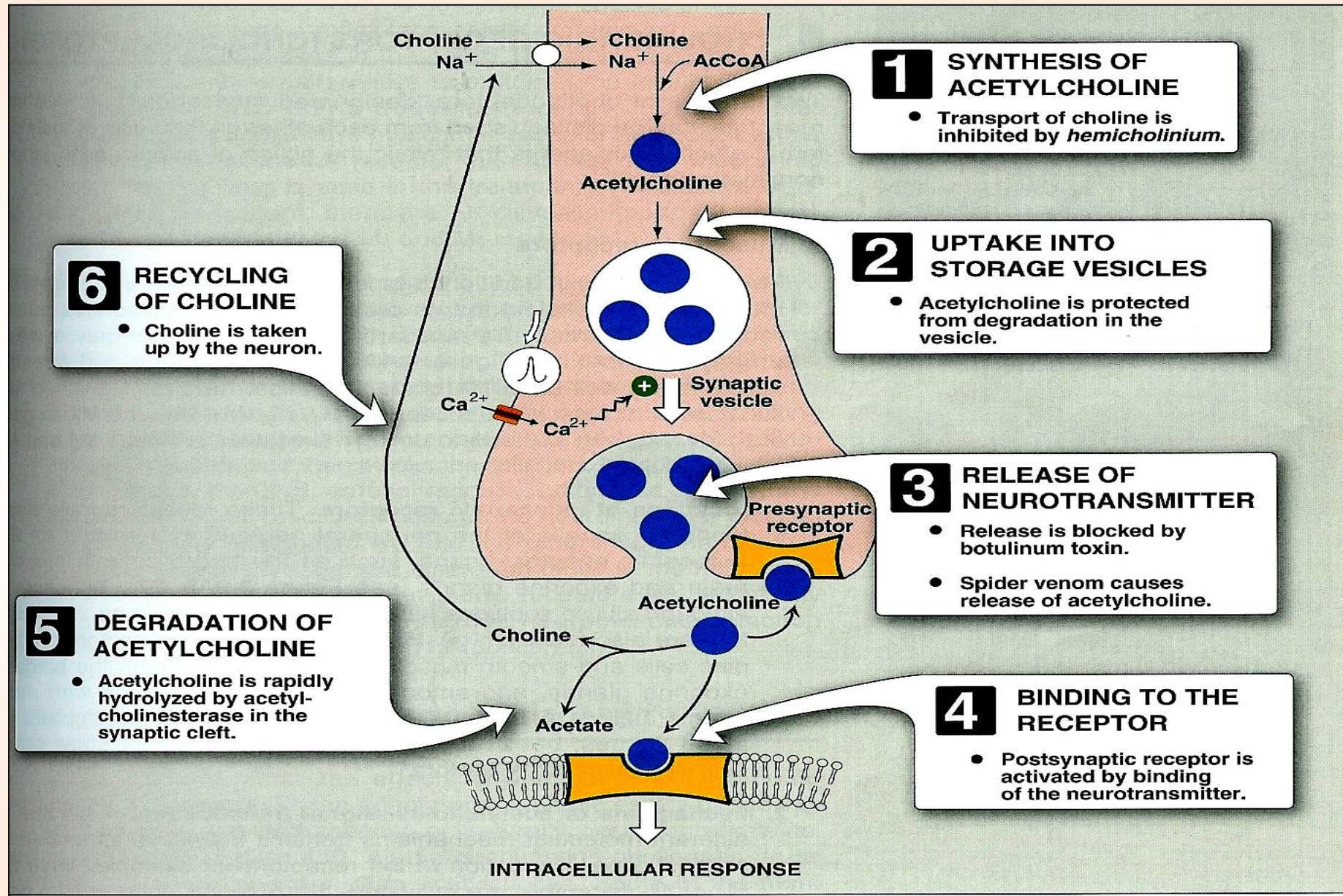
Cholinergic transmission

5) Metabolism by **acetyl cholinesterase** in synaptic cleft to give **choline and acetate.**



6) **Recycling of choline**

Cholinergic transmission



Cholinergic transmission

