



# Quiz

1. What are cholinergic receptors?
  - a) Receptors that respond to nicotine
  - b) Receptors that respond to adrenaline
  - c) Receptors that respond to acetylcholine
  - d) Receptors that respond to dopamine
2. Which of the following is NOT a subtype of muscarinic receptors?
  - a) M1
  - b) M2
  - c) M3
  - d) M4
3. Which type of receptor is present in all autonomic ganglia?
  - a) M1
  - b) M2
  - c) Nn
  - d) Nm
4. What is the physiological action of M1 muscarinic receptors?
  - a) CNS stimulation
  - b) Smooth muscle contraction
  - c) Increase release of digestive juices
  - d) Increase release of adrenaline





# Quiz

5. What is the molecular transduction mechanism of M2 muscarinic receptors?

- a) Increase inositol triphosphate and diacylglycerol
- b) Decrease cAMP
- c) Increase intracellular sodium
- d) Precynaptic inhibition of neurotransmitter release

6. Which type of receptor is present in the motor end plate of skeletal muscles?

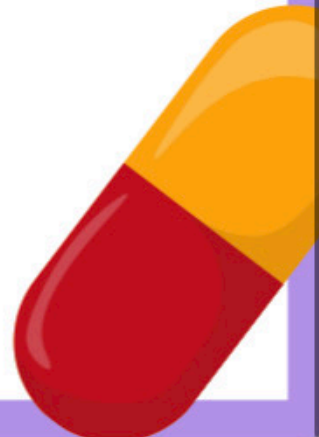
- a) M1
- b) M2
- c) Nn
- d) Nm

7. What is the molecular mechanism of muscarinic receptor stimulation?

- a) G-protein coupling to phospholipase C
- b) Coupling to adenylate cyclase
- c) Direct coupling to potassium channels
- d) Activation of protein kinase C

8. What are parasympathomimetics?

- a) Drugs that produce sympathetic-like actions
- b) Drugs that produce parasympathetic-like actions
- c) Drugs that produce both sympathetic and parasympathetic actions





# Quiz

9. What is the effect of parasympathomimetics on heart rate and cardiac output?
- a) Increase heart rate and cardiac output
  - b) Decrease heart rate and cardiac output
  - c) No effect on heart rate and cardiac output
  - d) Increase heart rate and decrease cardiac output
10. What is the effect of parasympathomimetics on blood pressure?
- a) Increase blood pressure
  - b) Decrease blood pressure
  - c) No effect on blood pressure
  - d) Increase blood pressure initially, then decrease it
11. What is the effect of parasympathomimetics on the eyes?
- a) Constriction of the pupillae sphincter muscle
  - b) Dilatation of the pupillae sphincter muscle
  - c) No effect on the pupils
  - d) Increase intraocular pressure
12. What is the effect of parasympathomimetics on bronchi?
- a) Bronchodilation
  - b) Bronchoconstriction
  - c) No effect on the bronchi
  - d) Increase bronchial secretion





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13. What is the effect of parasympathomimetics on the gastrointestinal tract?

- a) Decrease salivary secretion
- b) Decrease intestinal motility
- c) Increase gastric acid secretion
- d) Increase urinary tone

14. What are the adverse effects of cholinergic agents?

- a) Bradycardia and hypotension
- b) Tachycardia and hypertension
- c) Dry mouth and blurred vision
- d) Increased sweating and salivation

15. What are the general contraindications of parasympathomimetics?

- a) Bradycardia and heart failure
- b) Asthma and peptic ulcer
- c) Parkinsonism and mechanical obstruction of the GIT
- d) All of the above





# Quiz

Answer Key:

1. c) Receptors that respond to acetylcholine
2. d) M4
3. c) Nn
4. a) CNS stimulation
5. b) Decrease cAMP
6. d) Nm
7. a) G-protein coupling to phospholipase C
8. b) Drugs that produce parasympathetic-like actions
9. b) Decrease heart rate and cardiac output
10. a) Increase blood pressure
11. a) Constriction of the pupillae sphincter muscle
12. b) Bronchoconstriction
13. c) Increase gastric acid secretion
14. a) Bradycardia and hypotension
15. d) All of the above

Done by anas zakarneh

