
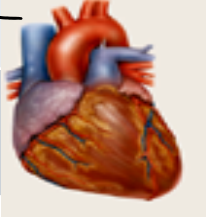



1. Differences in function of the 3 muscle types:

a) Skeletal Muscle	b) Cardiac Muscle	c) Smooth Muscle
Voluntary (somatic motor)	Involuntary (autonomic motor)	Involuntary (autonomic motor)
<p>Neurotransmitter = <u>ACh</u> Receptor = <u>nicotinic cholinergic</u> receptors for contraction & also <u>Glycine</u> & <u>GABA</u> with muscarinic receptors (Ch 4) (for IPSPs – muscle relax)</p>	<p>Parasymp. Neurotrans. = <u>ACh</u> <u>muscarinic cholinergic</u> receptor to slow heart rate</p> <p>Sympath. Neurotrans. = <u>Epinephrine</u> receptor = <u>B₁ adrenergic</u> Effect = <u>increased heart rate</u></p>	<p><u>ACh</u> with <u>muscarinic cholinergic</u> receptors, <u>Epinephrine</u> with <u>B₂ & α-</u> <u>adrenergic</u> receptors</p>
Requires somatic motor neuron stimulus to contract (not “autorhythmic”)	Is “autorhythmic”, but HR influenced by ACh (↓HR) & epinephrine (↑HR)	Is “autorhythmic” – influenced by ACh or epinephrine
<u>Fastest contraction speed</u>	Intermediate contraction speed	<u>Slowest contraction speed</u>
<p>Prone to fatigue</p> 	<p>Fatigue resistant</p> 	<p>Fatigue resistant</p> 

QUES:

Epineph. binding to β₂-adrenergic receptors causes bronchodilation, vasodilate, arteries, skeletal m.

Epineph. binding to α-adrenergic receptors causes ↓ GI activity