Action of Succinylcholine

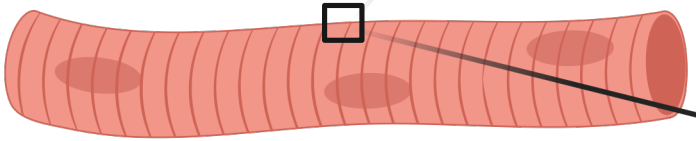
Depolarizing neuromuscular blockade

Succinylcholine binds to post-synaptic acetylcholine receptors locking them in the open state allowing ions to pass through the cell membrane causing depolarization.

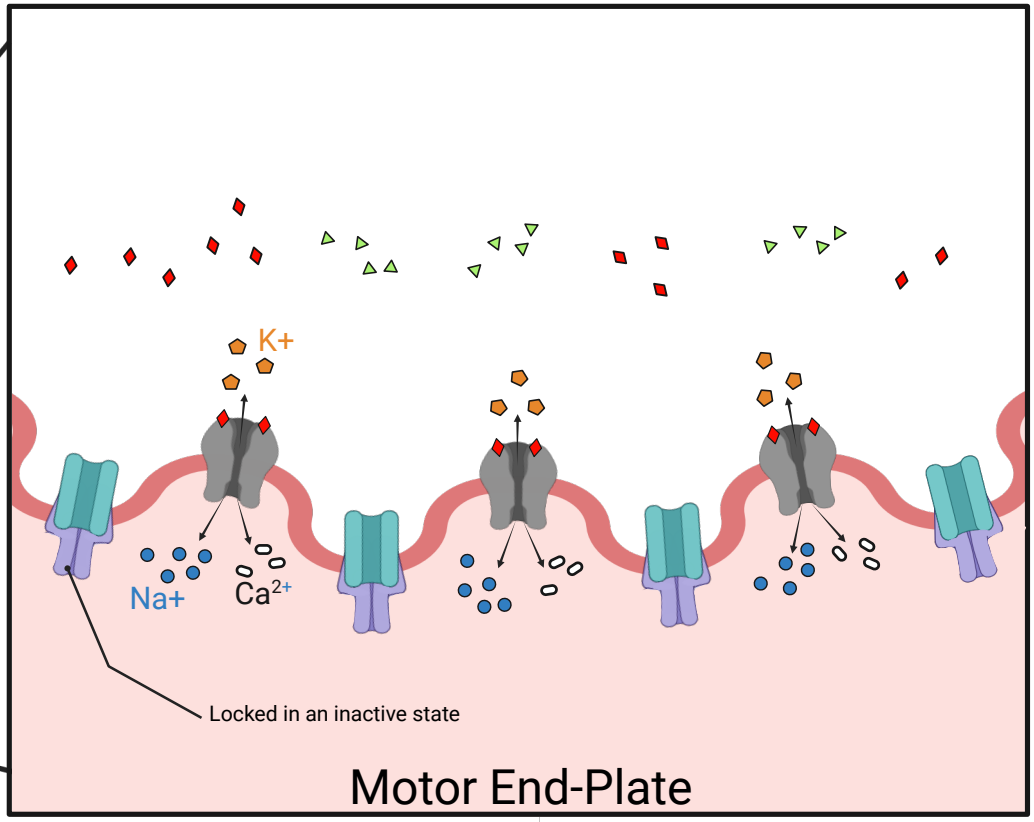
After depolarization, voltage-gated sodium channels are locked in an inactive state until succinylcholine is metabolized (plasma cholinesterase or pseudocholinesterase)

While voltage-gated sodium channels are locked in the inactive state it is impossible for another depolarization of then motor end plate to occur.

- Acetylcholine
- Succinylcholine
- Potassium ion
- Sodium ion
- Calcium ion
- Voltage-gated sodium channel (inactive state)
- Nicotinic receptor



Skeletal Muscle cell



Motor End-Plate