## **Electrochemical Impulse**

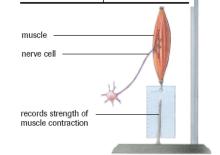


## **Resting Membrane Potential:**

lucido of a como is occas	undati in ta autoida	Na <sup>+</sup>	Na <sup>+</sup> Na <sup>+</sup>	Na <sup>+</sup> Na <sup>+</sup> Na <sup>+</sup>
- Inside of neuron is more		Cell Memb	brane Na*	Outside of Cell
( electrical potential across no	erve cell membrane)		8)//	
- Achieved by:				Inside of Cell
Sodium-potassium pump		K <sup>+</sup>	Na <sup>+</sup> ATP K	Sodium-potassium
Na <sup>+</sup> pumped for _	K <sup>+</sup> pumped	K <sup>+</sup>	K+ K+ K+	k+ pump k+
Cell membrane is		energy		on cell membrane uses the out of the cell, and at the
Phases of an Action Potential	ş	+40	^	
Depolarization –	· · · · · · · · · · · · · · · · · · ·	0 -40 -60 -60 -60		action potentia
How?				
Repolarization –		-40 -60		
How?	à	-80		
Hyperpolarization –				
How?				
Gated Ion Channels:		Nat	No.	Na
Ligand-gated ion channels —				
Voltage-gated ion channels -		volta	e resting potential, ge-gated Na <sup>+</sup> nels are closed.	When the membrane is depolarized, conformational changes open the voltage-gated channel.
Action Detential (AD)		Figure 45-8s. St. 2003 Feartum	stinguosi Science. Die ; Premitice Half, Inc.	
Action Potential (AP) -				
Triggered by a stimulus strong enough to produce a _		to	)	
All-or-none phenomenon:		Data		
•			Strength	Force

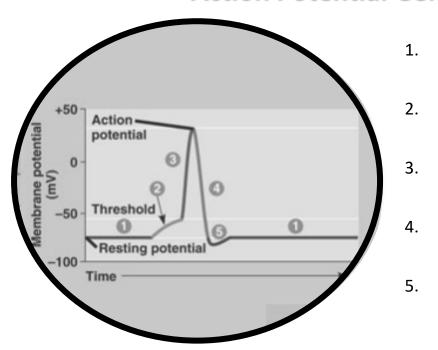
## **Saltatory conduction:**





## **Action Potential Generation**





Stage	Membrane potential	Pump / Channel Activity	Ion Movement
1			
2			
3			
4			
5			