

Biopotentials

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- Action Potential
 - Depolarization or Spikes
 - Electrical response to adequate stimulation; consists of “all-or-none” action potential after the cell threshold potential has been reached
 - Requires activating potential ($\approx 100[\text{mV}]$ for $1[\text{ms}]$)
 - Transient change in membrane permeability to:
 - * Na^+
 - * K^+
 - Specificity results from protein shape (conformation)
- EKG
 - EKG is always measured between pairs of electrodes called “leads”
 - Why biopotential is always measured between pairs
 - * In practice, interference is significant
 - * As such, we can reject signals that appear at both inputs and amplify (measure) the difference