

⑩ Na^+/K^+ pump redistributes the ions to repolarise & restore potential

Generator potential:

def: A small depolarisation caused by Na^+ ions entering the cell.

The larger the stimulus, the larger the generator potential is

Refractory period

what is it?

- following an action potential
- when the Na^+ & K^+ ions need to be redistributed
- and the Na^+ channels & K^+ are closed

Why? (3 marks)

- so ions only flow 1 way
- to stop another AP being generated
- determines the maximum freq of impulses
- ensures that impulses are separated

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Summation

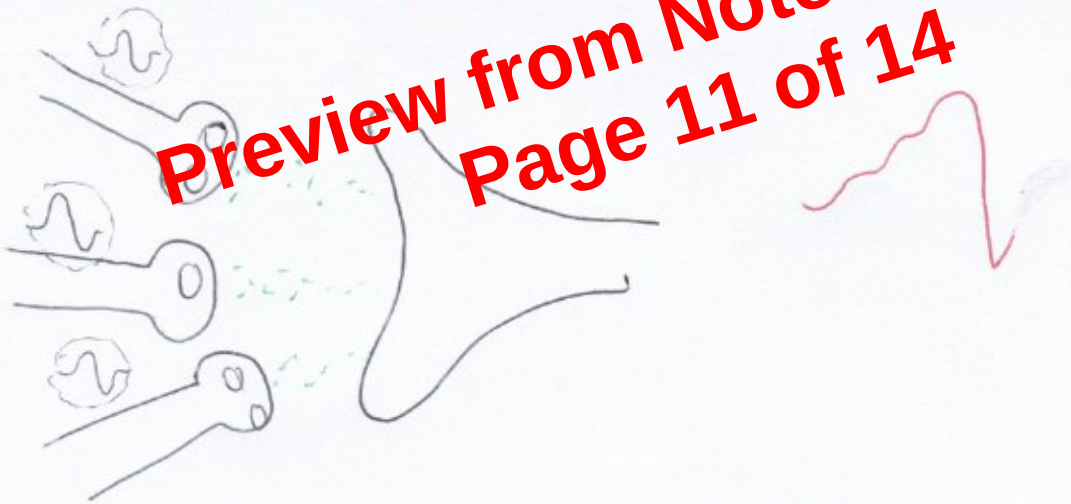
def: When several small potential changes combine to produce one larger change in potential difference across the membrane.

eg: Temporal summation



- If multiple signals are sent through the same synapse in a short space of time
- There are successive action potentials arriving at the same synapse, so each adds to the preceding one

spatial summation



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- When several signals are sent via synapses from different locations
- And each presynaptic neurone contributes to the action potential in the post synaptic neurone
- And they all release neurotransmitter simultaneously.