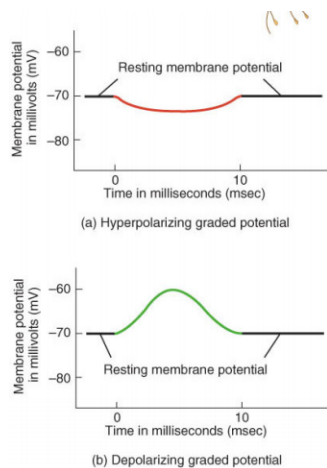




For the **graded potential**, the signals are graded, meaning they **vary in size** depending on **strength of stimulus and localised**.

Graded potentials **occur most often** in dendrites and the cell body of the neurone.

How graded potentials arise

source of stimuli:

- mechanical stimulation of membranes with mechanical gated ion channels (**remember this means pressure etc**)
- chemical stimulation of membranes with ligand gated ion channels (**remember this is like neurotransmitter**)

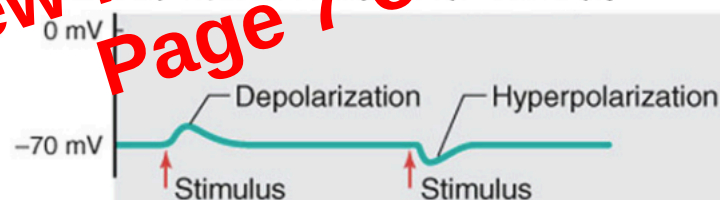
Remember this was discussed earlier on.

(flow /amount of ions is for a local change only)

the figure below is to explain the different types of graded potentials and their functions. Remember **DE**polarisation is opposite of 'Down' and then you can recall that **HYPER**polarisation is opposite of 'High'. This will help you remember the shape of their effects.

Figure 6-16

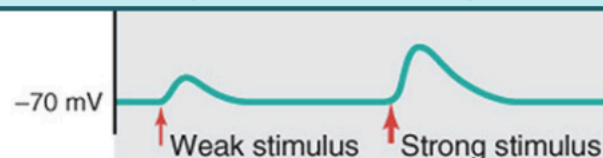
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Graded potentials can be:

EXCITATORY
(action potential
is more likely) or
INHIBITORY
(action potential
is less likely)

Membrane potential



The size of a graded potential is proportional to the size of the stimulus.

(c)

Graded potentials decay as they move over distance.

