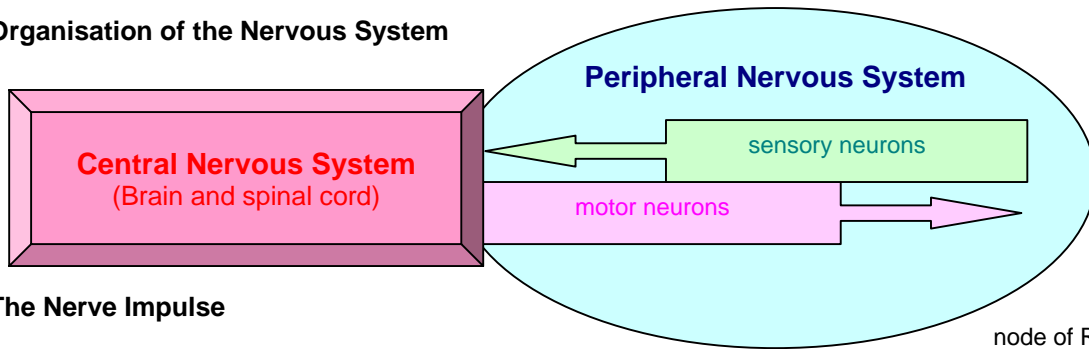
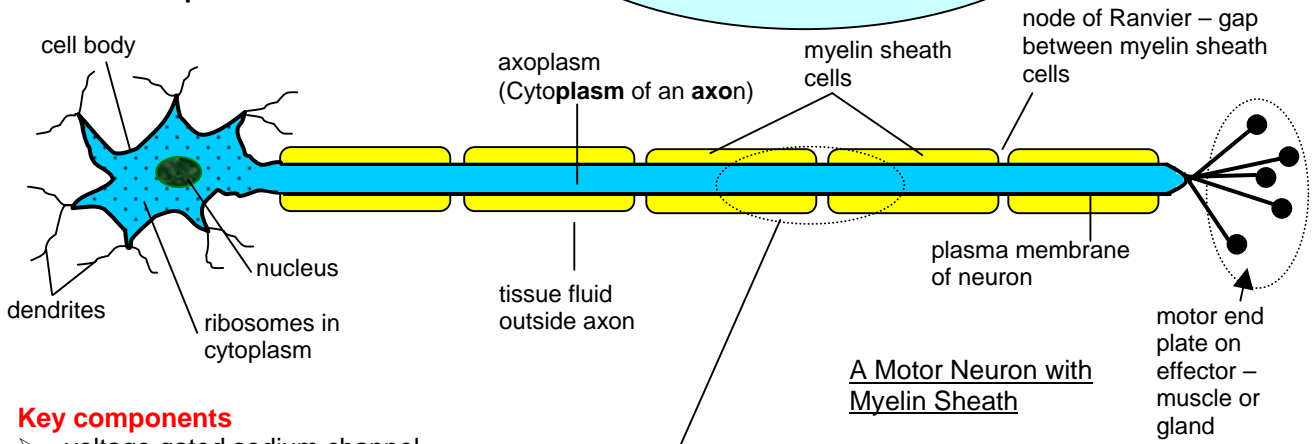


Organisation of the Nervous System



The Nerve Impulse



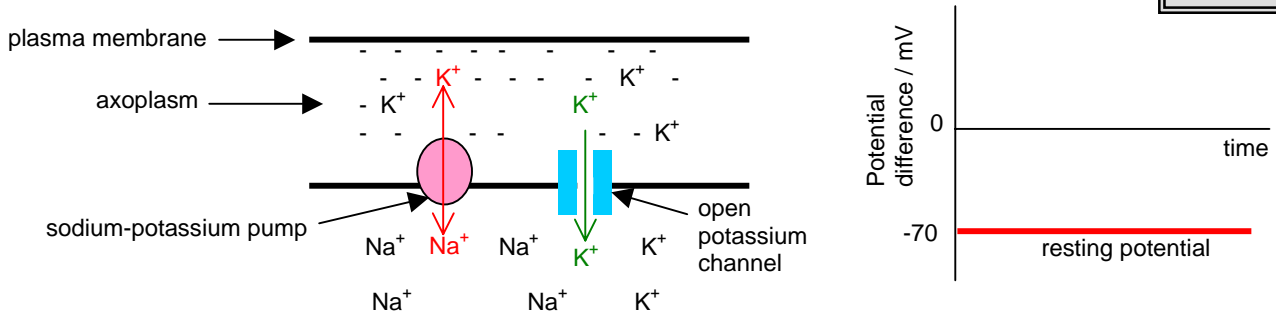
Key components

- voltage gated sodium channel
- voltage gated potassium channel
- open potassium channel
- linked sodium - potassium pump

A Motor Neuron with Myelin Sheath

enlarged region but without myelin sheath cells

Resting Potential



Resting Potential

Key points

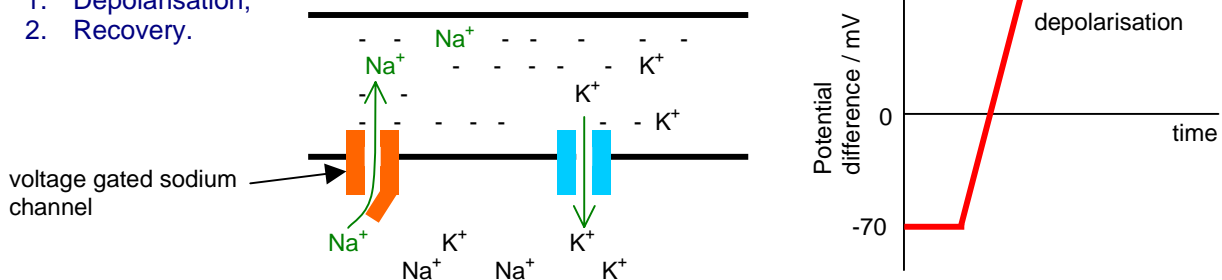
- The sodium-potassium pump brings potassium ions into the axoplasm and removes sodium ions (in the ratio $2K^+ : 3Na^+$);
- Potassium ions diffuse down a concentration gradient out of the axoplasm through an open ion channel;
- Negative ions (proteins) in the axoplasm cannot diffuse out.

Action Potential

Key point

Consists of two parts -

1. Depolarisation;
2. Recovery.



Action Potential