Motor Systems: Autonomic NS

LO:

- Describe the organisation of the autonomic nervous system
- Describe the action of neurotransmitters
- Outline the roles of sympathetic and parasympathetic divisions
- Explain central nervous control of autonomic activity

Know how to draw the divisions of the nervous system

- Part of PNS
- Regulates activity of visceral tissue
- Motor system; delivers info via efferent neurons
- Involuntary/autonomic
- Role; homeostasis

Homeostatic regulation

- Have dual innervation; by the sympathetic and parasympathetic NS
- The sympathetic and parasympathetic are antagonistic to each other, if one is dominant over the other it will cause the effect
- Basal tone- AP varies

Divisions of ANS:

1. Sympathetic NS- adapt for emergencies, results in increased metabolism and alertness, "fight or flight"
2. Parasympathetic NS- conservation of energy, replenishment of nutrient stores, "rest and digest"

(Sympathetic is taking over when you are nervous, when you are in a fight or scary situation).

Organisation of the ANS

- There are many synapses,
- Preganglionic fibre – project from CNS to ganglion
- Autonomic ganglia- located outside CNS
- Postganglionic fibre- connect ganglia to target organ

Sympathetic	Parasympathetic
Prepares body for activity	Discrete actions, promotes 'restorative' functions
Fight or flight	Rest and digest
Innervates body wall structures and internal viscera via sequential pathway of pre-and post-ganglionic fibres	*Innervates viscera of body cavities* via sequential -pathway of pre- and post-ganglionic fibres