

CONTROL AND CO-ORDINATION

PERIPHERAL NERVOUS SYSTEM

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All the nervous arising from brain and spinal cord are included in peripheral nervous system.

PNS consists of two sets of nerves :

(A) Cranial Nerves :

- Nerves arising from brain are called cranial nerves.
- Nerves may be sensory, motor or mixed.
- 12 pairs of cranial nerves are found in reptiles birds and mammals but amphibians and fishes have only 10 pairs.

(B) Spinal Nerves :-

- Nerves arising from spinal cord.
- Each spinal nerve is mixed type and arises from the roots of the horns of grey matter of the spinal cord.
- In human only 31 pairs of spinal nerves are found.

Autonomic nervous system (ANS): 'autonomic nervous system' means 'self-governing nervous system'. It controls and regulates the functions of the internal organs of our body involuntarily such as heart, blood vessels, glands & smooth muscles of alimentary canal & uterus. It is subdivided into

Sympathetic & Parasympathetic system : Organs receive nerves from both sympathetic and parasympathetic nerve fibres. They have opposite effects on the organs if one is stimulatory, the other is inhibitory.

Effects of sympathetic and parasympathetic nervous system			
S.No.	Organs involved	Sympathetic effect	Parasympathetic effect
1	Eyes	Dilation of pupil	Constriction of pupil
2	Bronchi	Dilates	Constricts
3	Heartbeat rate	Increases	Decreases
4	Blood pressure	Increases	Decreases
5	Blood vessels	Constricts	Dilates
6	Gastric secretion	Inhibits	Stimulates
7	Urinary bladder	Relaxes	Contracts