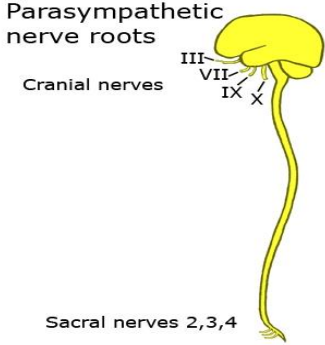
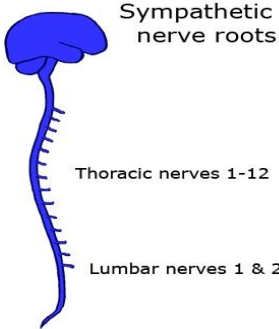
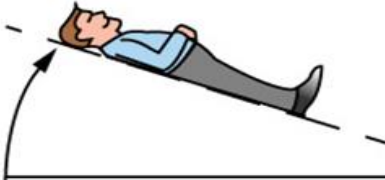



DIFFERENCES BETWEEN PARASYMPATHETIC SYSTEM AND SYMPATHETIC SYSTEM

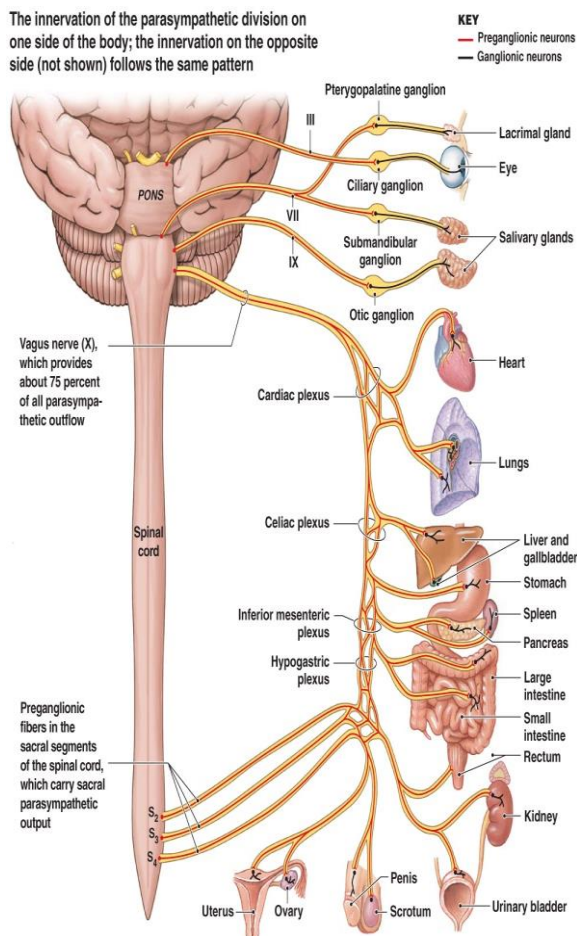
PARASYMPATHETIC SYSTEM	SYMPATHETIC SYSTEM
<p>✚ Cranio-Sacral Outflow</p> <p>III, VII, IX, X - Cranial nerves II, III, IV - Sacral nerves</p> <div style="text-align: center;">  <p>Parasympathetic nerve roots Cranial nerves III, VII, IX, X Sacral nerves 2,3,4</p> </div>	<p>✚ Thoraco-Lumbar outflow</p> <p>I to VII - Thoracic nerves I to III - Lumbar nerves</p> <div style="text-align: center;">  <p>Sympathetic nerve roots Thoracic nerves 1-12 Lumbar nerves 1 & 2</p> </div>
<p>✚ Rest and Digest Response</p> <p>This system activates at rest after eating and gives a chance to the body to digest the food.</p> <ul style="list-style-type: none"> • Decreased heart rate • Slow breathing • Increased salivation <p style="text-align: center;">Rest-and-digest</p> <div style="text-align: center;">  </div>	<p>✚ Fight or Flight Response</p> <p>This system prepares our body for action, when sudden fatal or dangerous situations.</p> <ul style="list-style-type: none"> • Increased heart rate • Narrow vision (Pin point vision) • Accurate hearing <p style="text-align: center;">Fight-or-flight</p> <div style="text-align: center;">  </div>

PARASYMPATHETIC SYSTEM

D - division

- Digestion
- Defecation
- Dieresis

Autonomic ganglions present at the visceral organs (target organs).

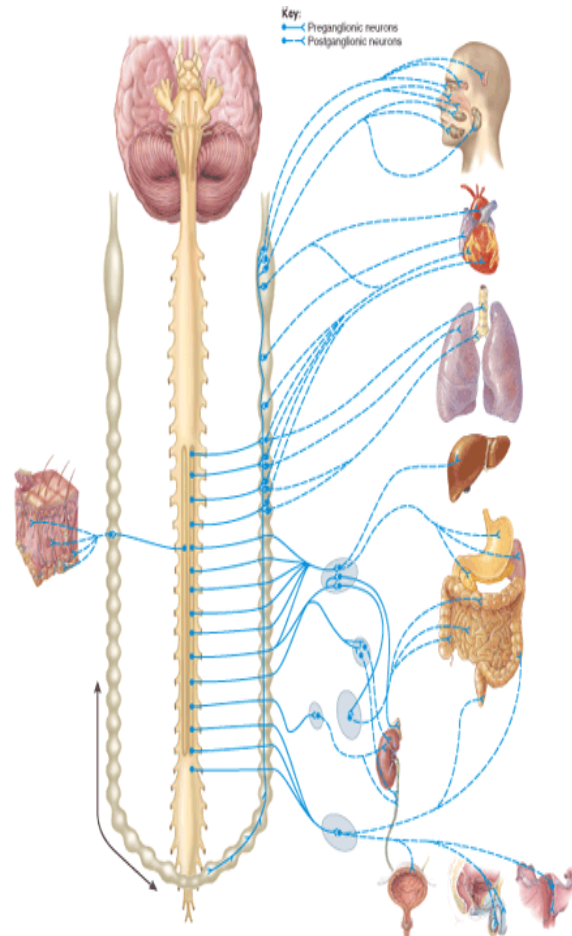


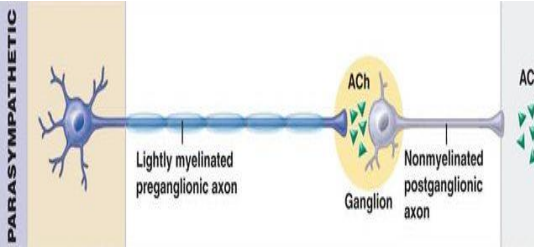
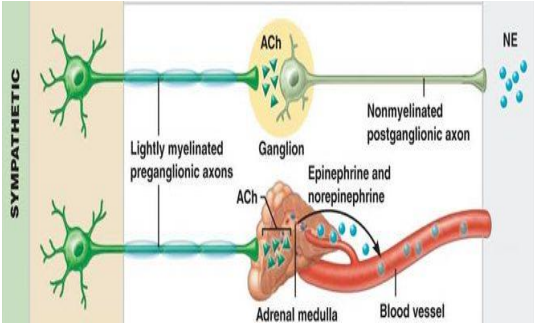
SYMPATHETIC SYSTEM

E division

- Exercise
- Excitement
- Emergency
- Embarrassment

Para vertebral ganglion or Lateral chain runs on either side of vertebrae from cervical to sacral regions.



<h2 style="text-align: center;">PARASYMPATHETIC SYSTEM</h2>	<h2 style="text-align: center;">SYMPATHETIC SYSTEM</h2>																		
<p>+ Neurotransmitter</p> <table border="1" data-bbox="240 338 735 524"> <thead> <tr> <th></th> <th>At ganglion</th> <th>At organ</th> </tr> </thead> <tbody> <tr> <td>Cholinergic system</td> <td>Ach</td> <td>Ach</td> </tr> </tbody> </table> 		At ganglion	At organ	Cholinergic system	Ach	Ach	<p>+ Neurotransmitter</p> <table border="1" data-bbox="858 338 1362 887"> <thead> <tr> <th></th> <th>At ganglion</th> <th>At organ</th> </tr> </thead> <tbody> <tr> <td>Adrenergic system</td> <td>Ach</td> <td>NA</td> </tr> <tr> <td>Cholinergic system (sweat glands, blood vessels)</td> <td>Ach</td> <td>Ach</td> </tr> <tr> <td>Splanchnic system</td> <td>Ach (Adrenal medulla)</td> <td>A, NA (blood)</td> </tr> </tbody> </table> 		At ganglion	At organ	Adrenergic system	Ach	NA	Cholinergic system (sweat glands, blood vessels)	Ach	Ach	Splanchnic system	Ach (Adrenal medulla)	A, NA (blood)
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Cholinergic system (sweat glands, blood vessels)	Ach	Ach																	
Splanchnic system	Ach (Adrenal medulla)	A, NA (blood)																	
<p>+ Distribution</p> <p>To limited regions mainly to head and to viscera of thorax, abdomen, and pelvis; some blood vessels.</p>	<p>+ Distribution</p> <p>Wide regions of the body include skin, sweat glands, adipose tissue, smooth muscles of the blood vessels....</p>																		

PARASYMPATHETIC SYSTEM	SYMPATHETIC SYSTEM
<p data-bbox="240 282 440 315">✚ Functions</p> <ul data-bbox="336 353 746 1290" style="list-style-type: none"> <li data-bbox="336 353 746 387">● Pupillary constriction <li data-bbox="336 421 746 454">● Thickening of eye lens <li data-bbox="336 488 746 595">● Increased salivary secretions <li data-bbox="336 629 746 736">● Increases gastric secretions <li data-bbox="336 770 746 804">● Increases peristalsis <li data-bbox="336 837 746 871">● Vasodilatation <li data-bbox="336 904 746 938">● Decreases BP <li data-bbox="336 972 746 1005">● Decreases pulse rate <li data-bbox="336 1039 746 1146">● Constriction of bronchioles <li data-bbox="336 1180 746 1288">● Contraction of urinary bladder 	<p data-bbox="858 282 1058 315">✚ Functions</p> <ul data-bbox="954 353 1364 1290" style="list-style-type: none"> <li data-bbox="954 353 1364 387">● Pupillary dilation <li data-bbox="954 421 1364 454">● Flattening of eye lens <li data-bbox="954 488 1364 595">● Decreases salivary secretions <li data-bbox="954 629 1364 736">● Decreases gastric secretions <li data-bbox="954 770 1364 804">● Decreases peristalsis <li data-bbox="954 837 1364 871">● Vasoconstriction <li data-bbox="954 904 1364 938">● Increases BP <li data-bbox="954 972 1364 1005">● Increases pulse rate <li data-bbox="954 1039 1364 1146">● Relaxation of bronchioles <li data-bbox="954 1180 1364 1288">● Relaxation of urinary bladder