

# NERVOUS SYSTEM anatomiskai

dat. žk.  
A13(2) p.

## A. CNS (s. neuraxis):

### I. BRAIN (ENCEPHALON) ≈ 2% kūno svorio (≈ 1400g.)

#### ① Cerebrum (hemispheres)

- 1) cortex
- 2) white matter
- 3) basal nuclei

#### ② Diencephalon

#### ③ Brain stem (truncus encephali):

- 1) midbrain (mesencephalon)
- 2) pons
- 3) medulla oblongata

#### ④ Cerebellum

FORAMEN MAGNUM - riba

### II. SPINAL CORD (MYELON)

1. Cervical
2. Thoracic
3. Lumbar
4. Sacral

Riba tarp CNS ir PNS -  
- nerve roots (jeu,  
bet "įanga" į CNS)

## B. PNS (s. peripheral nervous system):

1. Cranial nerves
2. Spinal nerves

# NERVOUS SYSTEM funkciškai

1. Somatinė NS

2. Visceralinė NS :

1) AFERENTINĖ (sensory) dalis

2) EFERENTINĖ dalis (s. AUTONOMINĖ NERVŲ SISTEMA) :

a) simpatinė NS

b) parasimpatinė NS

± c) enterinė NS

Functions	Preparation <sup>1</sup>						Level of Integration
	Normal	Decorticate <sup>2</sup>	Midbrain	Hindbrain (Decerebrate) <sup>3</sup>	Spinal	Decerebellate	
Initiative, memory, etc.	+	0	0	0	0	+	Cerebral cortex required
Conditioned reflexes	+	+ <sup>4</sup>	0	0	0	+	Cerebral cortex facilitates
Emotional responses	+	++	0	0	0	+	Hypothalamus, limbic system
Locomotor reflexes	+	++	+	0	0	Incoordinate	Midbrain, thalamus
Righting reflexes	+	+	++	0	0	Incoordinate	Midbrain
Antigravity reflexes	+	+	+	++	0	Incoordinate	Medulla
Respiration	+	+	+	+	0	+	Lower medulla
Spinal reflexes <sup>5</sup>	+	+	+	+	++	+	Spinal cord

<sup>1</sup> 0 = absent; + = present; ++ = accentuated.

<sup>2</sup> Cerebral cortex removed.

<sup>3</sup> Brain stem transected at the top of the pons.

<sup>4</sup> Conditioned reflexes are more difficult to establish in decorticate than in normal animals.

<sup>5</sup> Other than stretch reflexes.