

# Terminology in Health Care and Public Health Settings

## Unit 9 Nervous System

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1

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## Nervous System Overview

- Objectives
  - Define, understand and correctly pronounce medical terms related to Nervous System
  - Describe common disease and conditions, laboratory and diagnostic procedures, medical and surgical procedures and medications related to the Nervous System

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Version 1/Fall 2010

2

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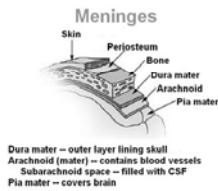
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## Nervous System Anatomy

- Central Nervous System
  - Brain encased in the skull
    - Protective coverings with three meninges
      - Pia mater
      - Arachnoid
      - Dura mater –
  - Spinal Cord encased in the vertebral canal



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Version 1/Fall 2010

3

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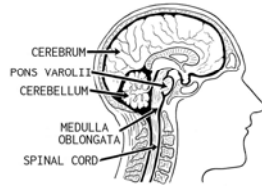
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## Nervous System Anatomy

- Cerebrospinal fluid
  - subarachnoid space
  - spinal cord
  - ventricles
- Cerebrum – largest part of brain
  - Divided into two hemispheres
  - Cerebral cortex – primary motor and sensory areas



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Version 1/Fall 2010

4

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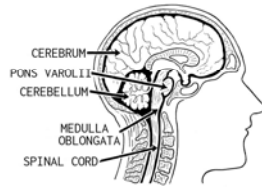
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## Nervous System Anatomy

- Hypothalamus
  - Regulation of appetite, heart rate, body temperature, water balance, digestion and sexual activity
- Cerebellum – second largest part of brain
  - Controls unconscious actions



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Version 1/Fall 2010

5

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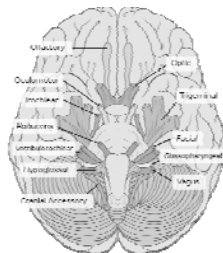
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## Cranial Nerves

- 12 pair of cranial nerves
  - I Olfactory
  - II Optic
  - III Oculomotor
  - IV Trochlear
  - V Trigeminal
  - VI Abducens
  - VII Facial
  - VIII Auditory
  - IX Glossopharyngeal
  - X Vagus
  - XI Spinal Accessory
  - XII Hypoglossal



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Version 1/Fall 2010

6

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## Cranial Nerves Functions

### Cranial Nerves

- I Olfactory
- II Optic
- III Oculomotor
- IV Trochlear
- V Trigeminal
- VI Abducens
- VII Facial
- VIII Auditory
- IX Glossopharyngeal
- X Vagus
- XI Spinal Accessory
- XII Hypoglossal

### Major Functions

- Smell
- Vision
- Eyelid and eyeball movement
- Innervates superior oblique eye muscle
- Chewing, face & mouth
- Turns eye laterally
- Controls facial expressions
- Hearing; equilibrium
- Taste; senses carotid BP
- Senses aortic BP; slows HR
- Controls neck & shoulder muscles
- Controls tongue movements

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Version 1/Fall 2010

7

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## Spinal Nerves

- 31 pair spinal nerves which leave the spinal cord are numbered according to the vertebra at which they exit the spinal column
  - Spinal nerve T4, exits the spinal column through the foramen in the 4<sup>th</sup> thoracic vertebrae



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Version 1/Fall 2010

8

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## Brain Disorders and Diseases

- Alzheimer's Disease
  - Symptoms
    - Dementia
  - Progressive
  - Treatment
    - Medications
- Brain Aneurysm
  - Symptoms
  - Treatment
- Brain Cancer
  - Primary vs Metastatic
  - Symptoms

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Version 1/Fall 2010

9

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## Brain Disorders and Diseases

- Epilepsy
  - Definition
  - Causes
  - Diagnostic tests
  - Treatments
- Parkinson's Disease
  - Definition
  - Symptoms
  - Treatment
- Stroke
  - Two types
    - Ischemic
    - Hemorrhagic
  - Transient ischemia attacks (TIA)
  - Symptoms
  - Treatments

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Version 1/Fall 2010

10

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## Spinal Cord Disorders and Diseases

- Arteriovenous Malformations
  - Definition
  - Treatment
- Meningitis
  - Definition
  - Symptoms
  - Treatment
- Multiple Sclerosis
  - Definition
  - Symptoms
  - Risk factors
  - Treatment

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Version 1/Fall 2010

11

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## Nerve Disorders and Diseases

- Bell's Palsy
  - Definition
  - Symptoms
  - Treatment
- Carpal Tunnel Syndrome (Median nerve entrapment)
  - Definition
  - Causes
  - Treatment
- Peripheral Nerve Disorders
  - Definition
  - Causes
  - Symptoms
  - Treatment

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Version 1/Fall 2010

12

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## Nerve Disorders and Diseases

- Neurofibromatosis
  - Also called Recklinghausen's disease or von Recklinghausen's disease
  - Definition
  - Three types
  - Treatment

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13

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## Nervous System Combining Forms

• Word Part	Meaning	Key Terms
• cerebell/o	cerebellum	cerebellar
• cerebr/o	cerebrum	cerebral
• crani/o	cranium	cranioclasia
• mening/o	meninges	meningioma
• myel/o	marrow	myelitis
• plegia	paralysis	quadriplegia
• thalam/o	thalamus	thalamotomy

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Version 1/Fall 2010

14

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