

ENGLISH DIVISION DENTISTRY

CENTRAL NERVOUS SYSTEM

LECTURES:

04/11/2016 Classification of the central nervous system. Development of the central nervous system. Cerebrospinal fluid and ventricular system of the brain.

21/11/2016 Sensory pathways and centers in the central nervous system. Diencephalon.

25/11/2016 Motor pathways and centers in the central nervous system. Cerebellum.

PRACTICAL CLASSES

	DATE	TOPIC	
1	04/11/2016	General structure of CNS. Spinal cord. Spinal nerve. Vascularization of the CNS. Circle of Willis. Cranial meninges: structure, layers, meningeal spaces.	<p>1. Organization of nervous tissue, clinical and ontogenetical division of the encephalon.</p> <p>2. Detailed anatomy of the external appearance and cross-sections of the spinal cord.</p> <p>3. Analyze the scheme of the spinal nerve anatomy.</p> <p>4. Major vessels of the CNS and their range of vascularization. The arterial cerebral circle (circle of Willis). You should know the blood supply of more important cortical and subcortical areas and the distribution of vessels in cerebellum, brainstem and spinal cord.</p> <p>5. Cranial meninges: structure, layers, meningeal spaces, clinical significance.</p> <p>Dura mater: structure, layers, infoldings and reflections, arteries, veins, innervation.</p> <p>Dural sinuses: structure, topography, course, drainage, emissary veins, clinical significance.</p> <p>Cavernous sinus: topography, connections, structures running through the cavernous sinus, structures in the lateral wall of the cavernous sinus (their topography, course), clinical significance.</p>
2	07/11/2016	Telencephalon. Lateral ventricle. Basal ganglia. (classes 45 min. longer)	<p>Description of external surface of the cerebral hemisphere. Find the names of all exposed gyri and sulci of the supero-lateral, medial and inferior surface of the cerebral hemisphere. Please read about the structures and function of middle telencephalon.</p> <p>Please repeat the circulation of CSF and basic anatomy of the ventricular system of the brain. During self-preparation focus on the description of each portion of the lateral ventricle. Find the structures of the walls of the lateral ventricle.</p> <p>Please read about the divisions and functions of basal ganglia.</p>
3	14/11/2016	Diencephalon. Third ventricle. Brainstem.	<p>Divisions and detailed description of diencephalon. Find the functions of the thalamus, hypothalamus, pituitary and pineal gland. Note major thalamic nuclei.</p> <p>Find the structures of the walls of the third ventricle and its recesses.</p> <p>Please repeat the ventricular system of the brain and circulation of the CSF.</p> <p>Detailed description and functions of the brainstem.</p>
4	18/11/2016	Roots of cranial nerves.	Names and destination of the cranial nerves, their nuclei, types of fibres (motor, sensory, parasympathetic), points on the external surface of the CNS they can be found, foramina and canals they exit the skull.
5	21/11/2016	Identification of elements of sensory	The sensory pathways and their centers. For every pathway you are supposed to name each element on its course. You should also know

		pathways	whether the pathway is crossed and where is/are the crossing site(s). Pathways to be identified: somatic sensation (superficial and deep sensory pathways, trigeminothalamic tract), special senses (visual, auditory, olfactory, gustatory, vestibular pathways).
6	25/11/2016	Identification of elements of motor pathways. Cerebellum. Fourth ventricle.	The motor pathways and their centers. For every pathway you are supposed to name each element on its course. You should also know whether the pathway is crossed and where is/are the crossing site(s). Motor systems (corticospinal and corticonuclear tracts, extrapyramidal centers). Cerebellum. Fourth ventricle.
7	28/11/2016	Radiology of the CNS. Repetition. (classes 45 min. longer)	The CNS structures in radiographs, CT scans and MRI scans displayed in the dissection rooms. Repetition of CNS.