Dental Neuroanatomy
Review Phase 1: Ventricles, CNs, Vessels, ANS
This quiz does not count but you are responsible for knowing all of this material. Review!
Dental Neuroanatomy 2012
Interstitial fluid in the brain is returned to the vascular system by

1. Arachnoid Granulations
2. Choroid Plexus Cells
3. Ependymal Cells
4. Lateral Apertures of the ventricles
5. Lymphatics
Arachnoid Granulations
Sinuses drain into the internal jugular vein
(Image from Dave Morton)
CSF is most often obstructed in which region?

1. A
2. B
3. C
4. D
The arrow is pointing to

1. Lateral ventricle
2. Cerebral aqueduct
3. Third Ventricle
4. Fourth Ventricle
5. Lateral Ventricle
6. Cisterna Magna
7. Venous drainage
Ventricle movie: Phantom

See movie posted on class website
Ventricles: Lateral view

(from Dave Morton)
Blockage of the cerebral aqueduct will lead to the enlargement of

A. third ventricle
B. right lateral ventricle
C. left lateral ventricle
D. interventricular foramina
E. all of the above
Ventricles: Frontal view

(Dave Morton)
Ventricle: Isolated
In this coronal section of a cavernous sinus you can see? (Dave Morton and Frank N

1. CN 7 and 8
2. CN 2
3. Optic Chiasm
4. Internal Carotid Artery
5. Ophthalmic Artery
All the colored nerves go to or come from

1. Striated muscle derived from branchial arches
2. Sense organs
3. Parasympathetic ganglia
4. Postganglionic sympathetic neurons
Parasympathetic (Dave Morton)
Branchial Arches 1,2,3,4,(6)
This recent clot over the dura is most likely due to laceration of the

A. Middle meningeal artery
B. Transverse sinus
C. Anterior cerebral artery
D. Superior sagittal sinus
In a patient with multiple sclerosis several areas of abnormal demyelination in the white matter can be seen on an MRI. What glial cell normally maintains CNS myelin?

A. Astrocyte  
B. Microglial cell  
C. Oligodendrocyte  
D. Schwann Cell  
E. Ependymal cell
Fixed Brain of patient with multiple Sclerosis (www.neuropathogyweb.org)
Northeastern Ohio Universities College of Medicine
This vessel (red) gives rise to

1. Vertebral & basilar Arteries
2. Anterior spinal artery
3. Anterior and middle cerebral arteries
4. Posterior communicating artery

Image modified from Netter
Vertebrals, Internal Carotid and Circle of Willis
The yellow structure contains:

1. Preganglionic sympathetic cell bodies
2. Postganglionic sympathetic cell bodies
3. Preganglionic parasympathetic cell bodies
4. Postganglionic parasympathetic cell bodies
Sympathetics (Dave Morton)

Superior, middle and inferior cervical ganglia

1. Greater splanchnic n.
2. Lesser splanchnic n.

Sympathetic nerves

Ciliary ganglion
Pterygopalatine ganglion
Submandibular ganglion
Otic ganglion

Eye
Lacrimal gland and nasal mucosa
Submandibular and sublingual glands
Parotid gland

Lung
Heart
Liver and gallbladder
Spleen
Stomach
Pancreas
Large intestine
Small intestine
Adrenal gland and kidney
Urinary bladder
Reproductive organs
Planes

Frontal (Coronal) Plane

Dorsal Superior

Sagittal Plane

MID

Para-Sagittal

Ant

Rostral Frontal

Caudal Occipital

Posterior

Axial = Horiz.

(Axial - Horiz) Cross Sec. Transverse