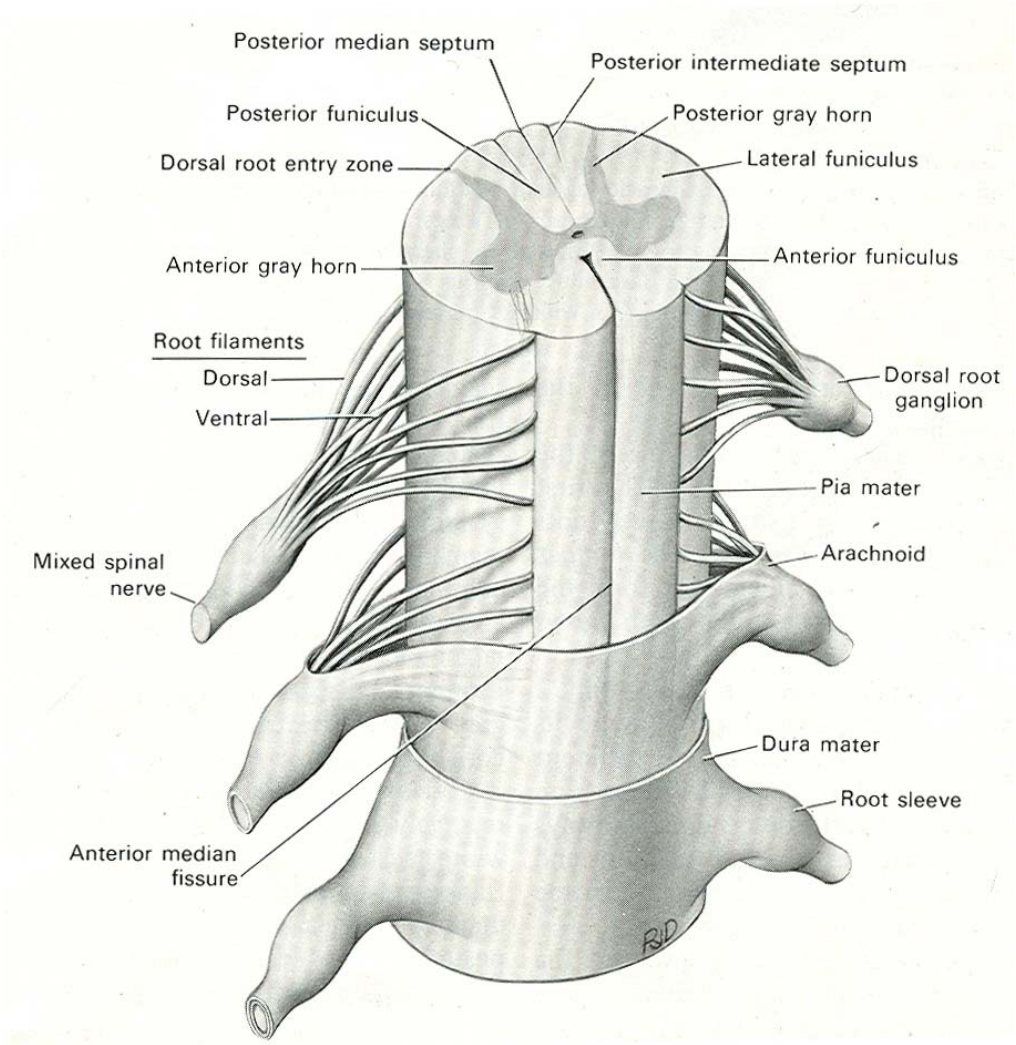
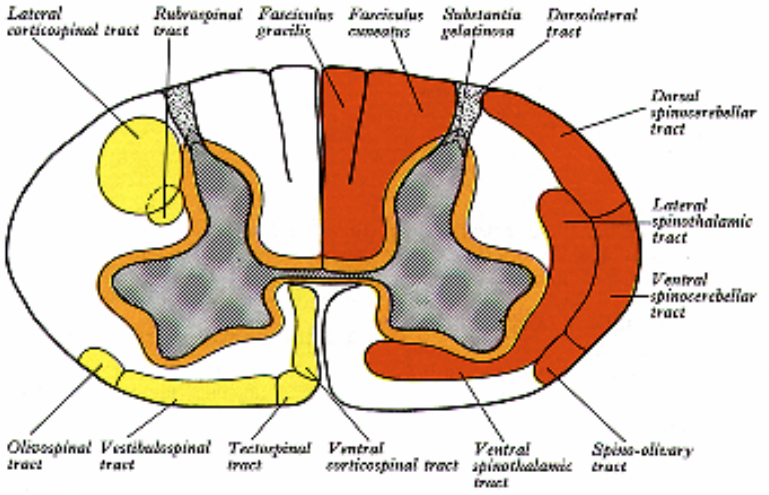
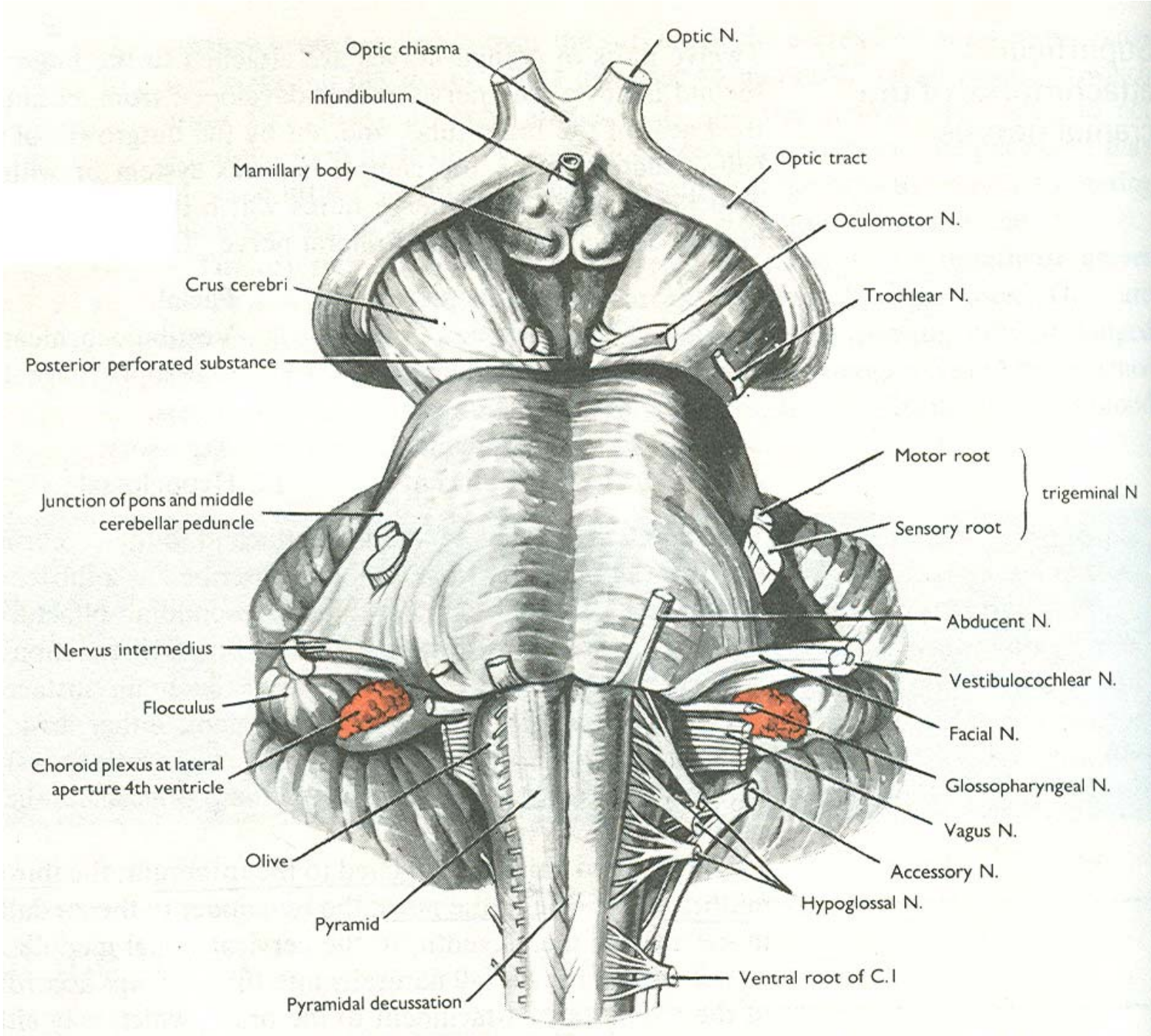
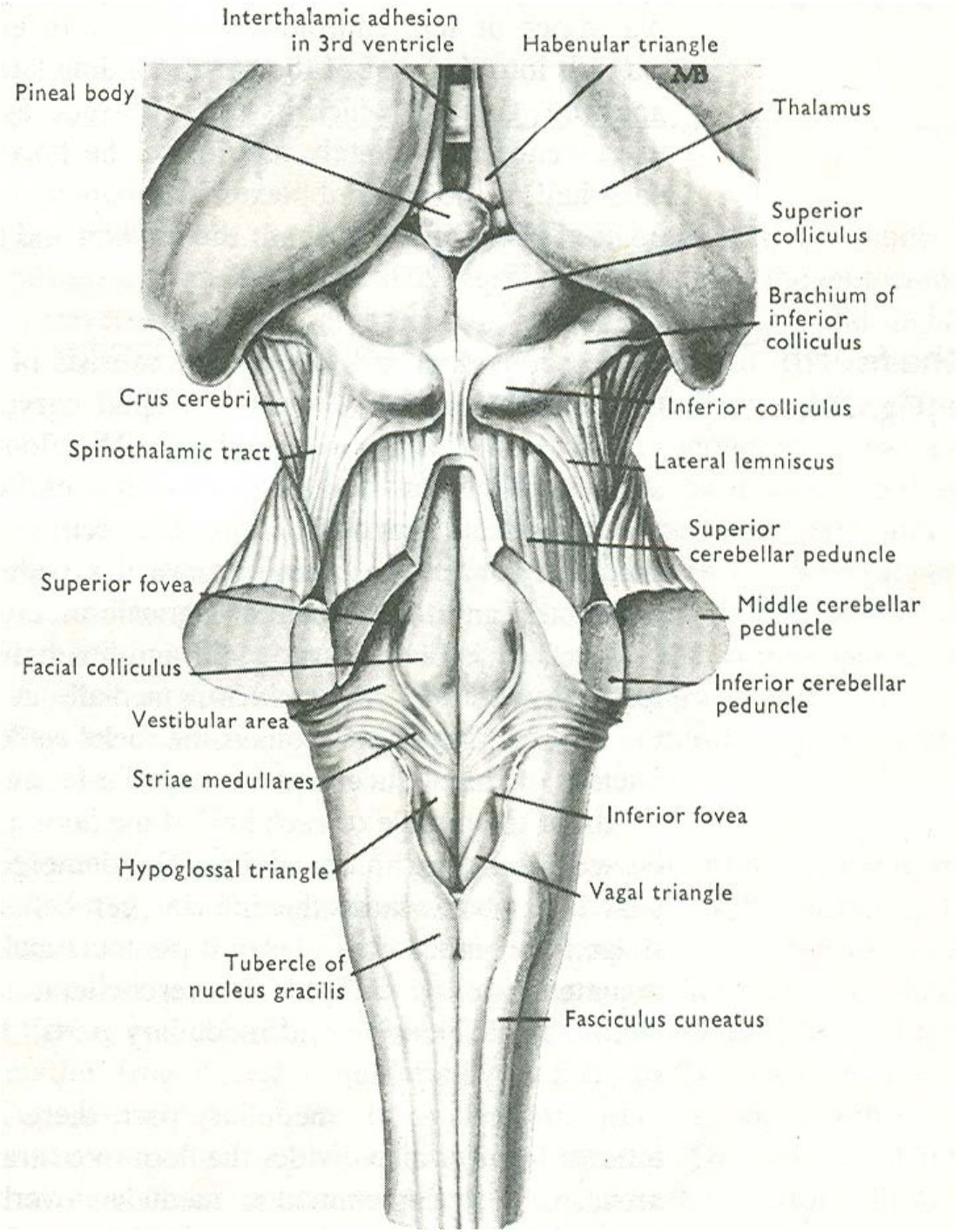
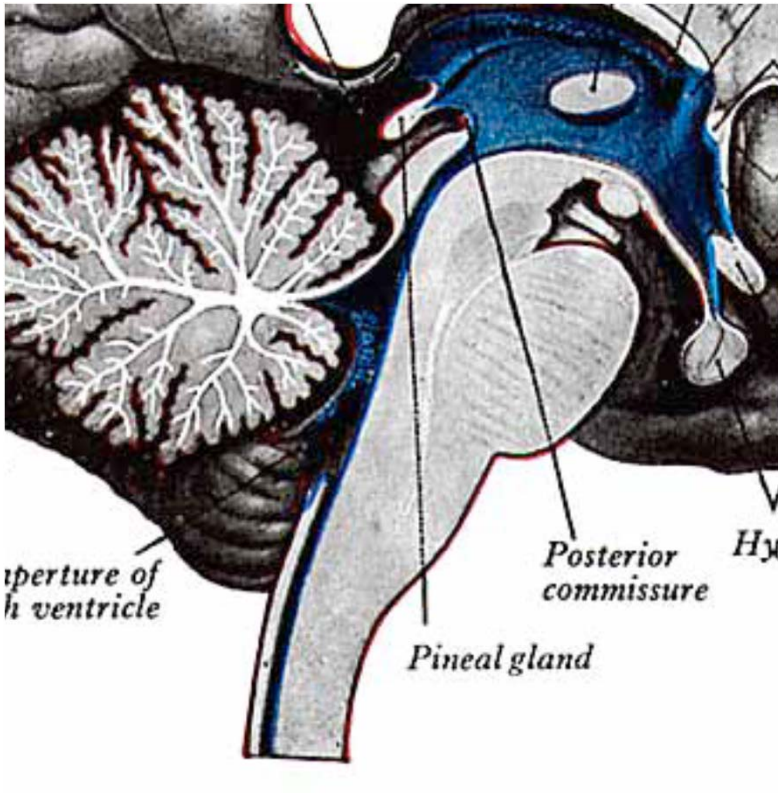
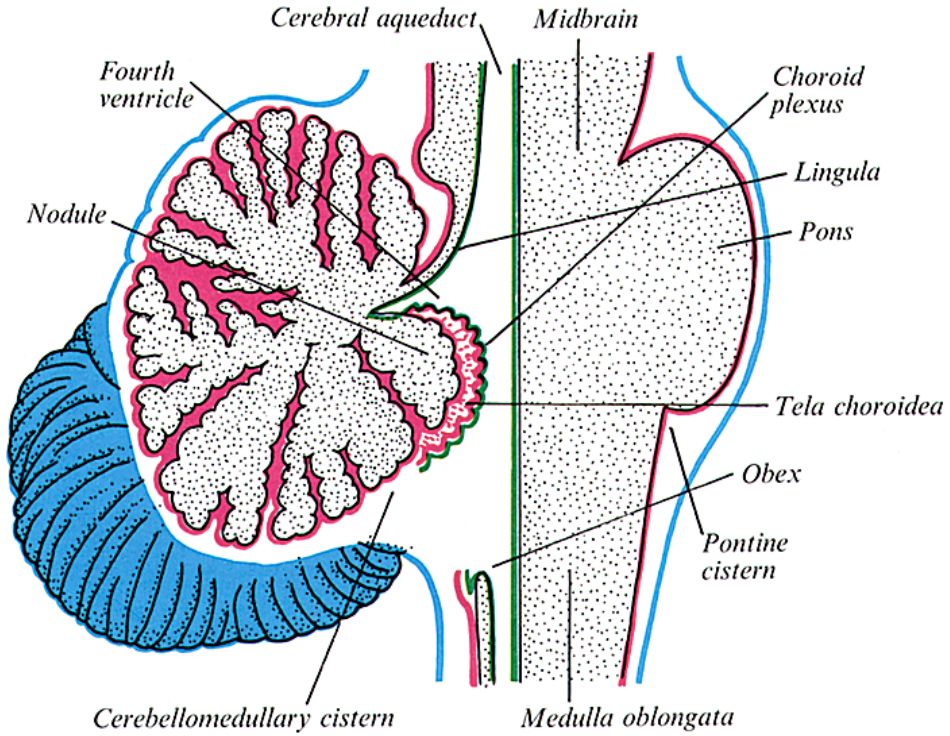

Posterior median septum
Posterior intermediate septum
Posterior funiculus
Posterior gray horn
Dorsal root entry zone
Lateral funiculus
Anterior gray horn
Anterior funiculus
Root filaments
Dorsal
Ventral
Dorsal root ganglion
Pia mater
Arachnoid
Mixed spinal nerve
Dura mater
Root sleeve
Anterior median fissure

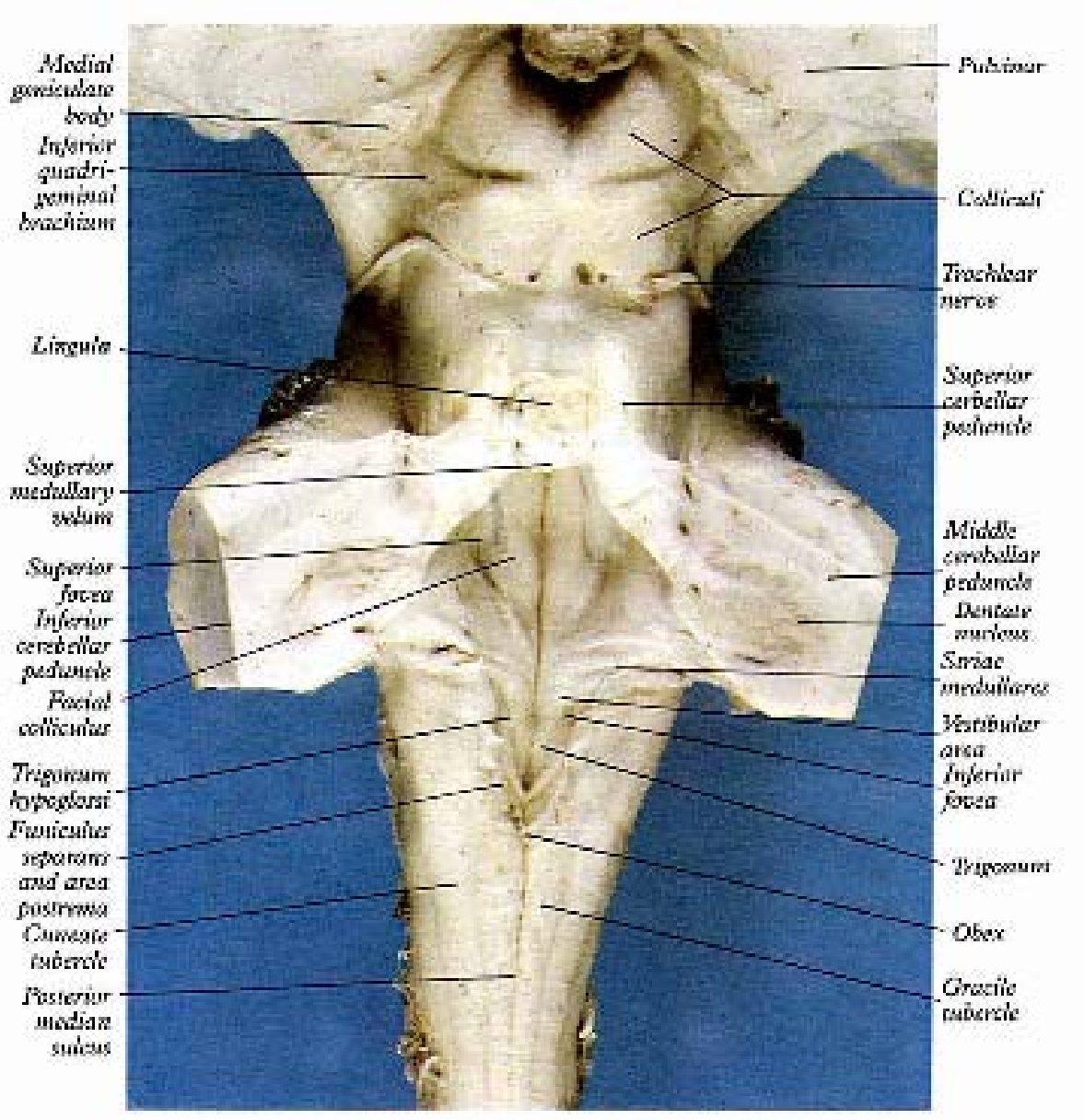

Lateral corticospinal tract
Rubrospinal tract
Fasciculus gracilis
Fasciculus cuneatus
Substantia gelatinosa
Dorsolateral tract
Dorsal spinocerebellar tract
Lateral spinothalamic tract
Ventral spinocerebellar tract
Olivospinal tract
Vestibulospinal tract
Tectospinal tract
Ventral corticospinal tract
Ventral spinothalamic tract
Spino-olivary tract

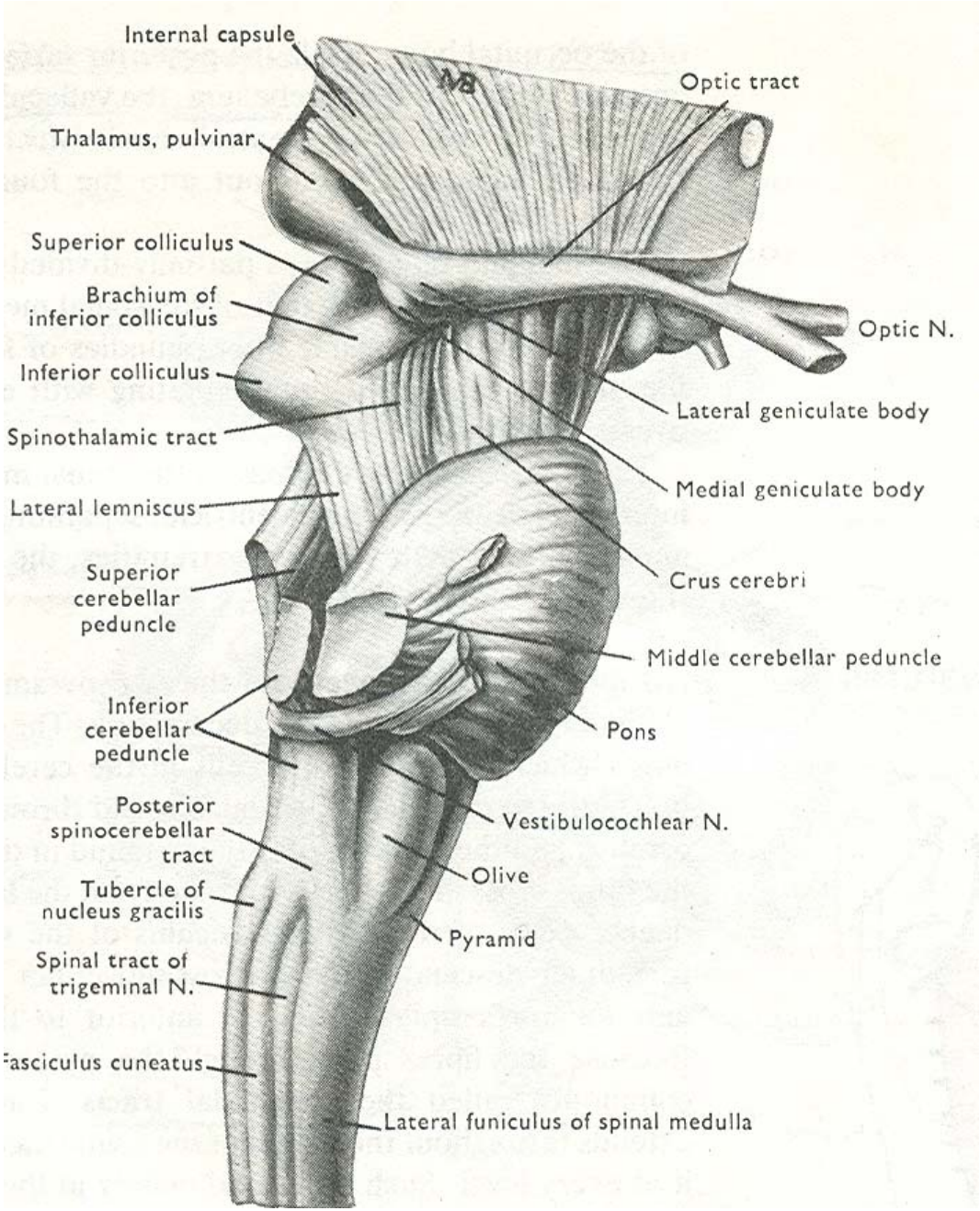

Optic chiasma
Optic N.
Infundibulum
Optic tract
Mamillary body
Oculomotor N.
Crus cerebri
Trochlear N.
Posterior perforated substance
Motor root
trigeminal N
Junction of pons and middle cerebellar peduncle
Sensory root
Abducent N.
Nervus intermedius
Vestibulocochlear N.
Flocculus
Facial N.
Choroid plexus at lateral aperture 4th ventricle
Glossopharyngeal N.
Vagus N.
Olive
Accessory N.
Hypoglossal N.
Pyramid
Ventral root of C.1
Pyramidal decussation

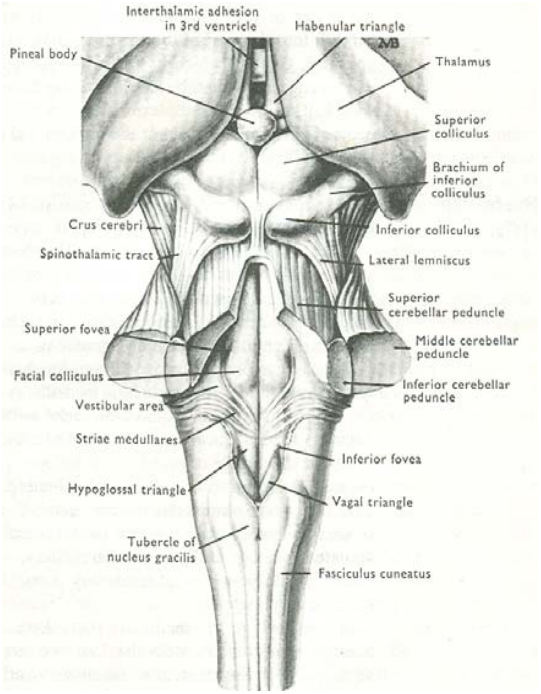

Interthalamic adhesion in 3rd ventricle
Habenular triangle
Pineal body
Thalamus
Superior colliculus
Brachium of inferior colliculus
Crus cerebri
Inferior colliculus
Spinothalamic tract
Lateral lemniscus
Superior cerebellar peduncle
Superior fovea
Middle cerebellar peduncle
Facial colliculus
Inferior cerebellar peduncle
Vestibular area
Striae medullares
Inferior fovea
Hypoglossal triangle
Vagal triangle
Tubercle of nucleus gracilis
Fasciculus cuneatus

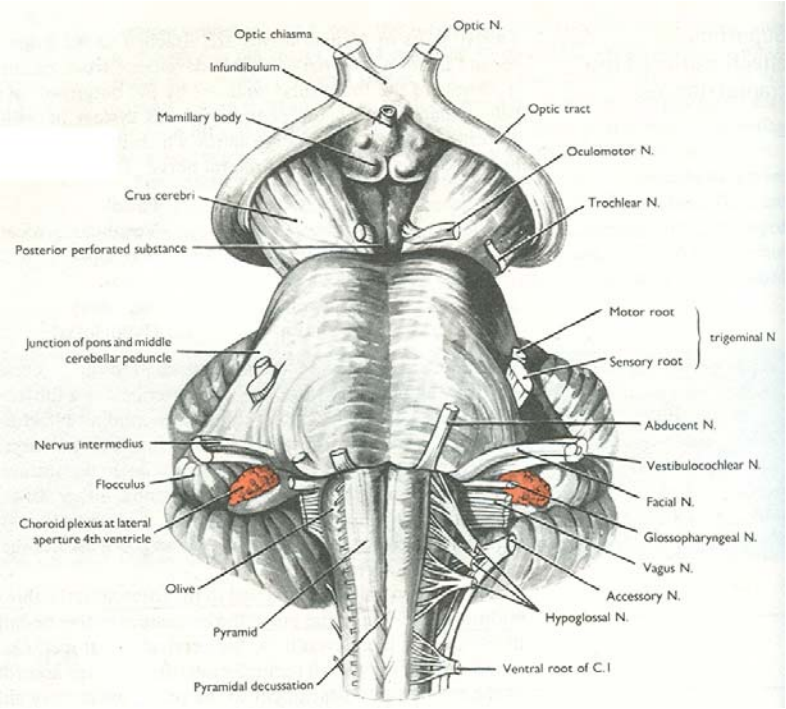

perture of
h ventricle
Posterior
commissure
Pineal gland

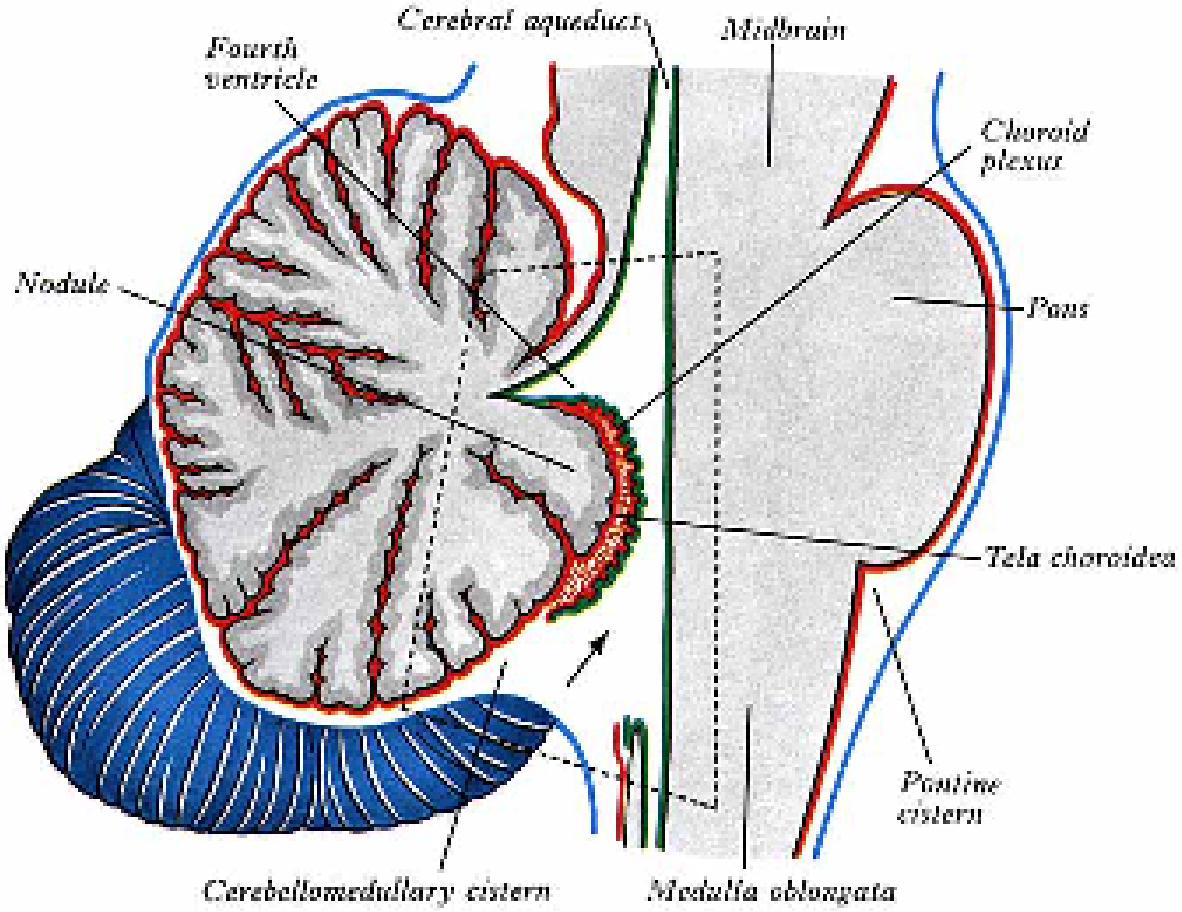

Cerebral aqueduct
Midbrain
Fourth
ventricle
Choroid
plexus
Lingula
Nodule
Pons
Tela choroidea
Obex
Pontine
cistern
Cerebellomedullary cistern
Medulla oblongata

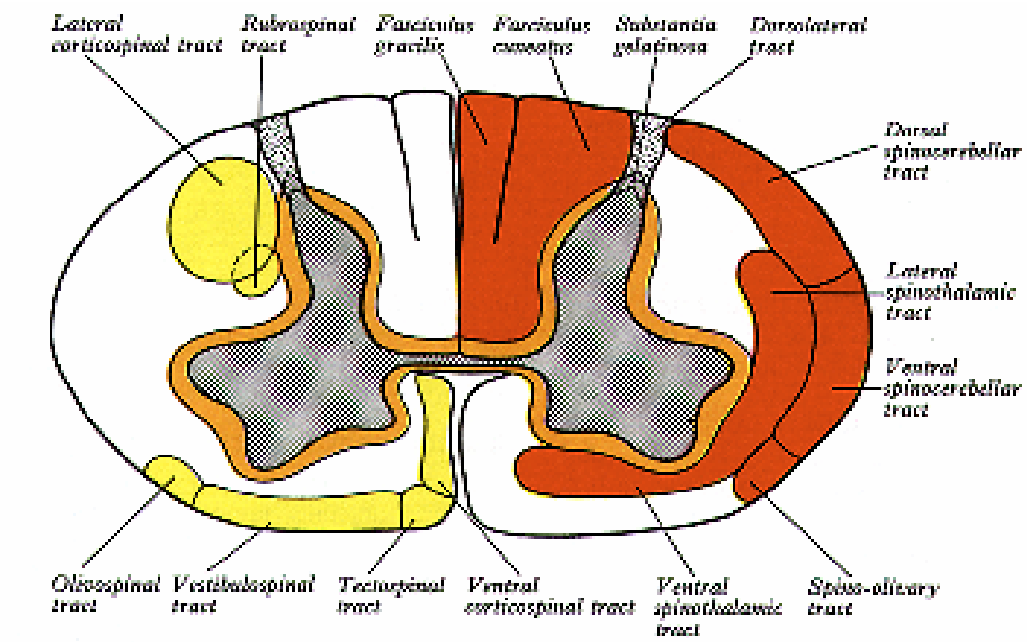

Medial geniculate body
Inferior quadrigeminal brachium
Lingula
Superior medullary velum
Superior fovea
Inferior cerebellar peduncle
Facial colliculus
Trigonum hypoglossi
Funiculus separans and area postrema
Cuneate tubercle
Posterior median sulcus
Pulvinar
Colliculi
Trochlear nerve
Superior cerebellar peduncle
Middle cerebellar peduncle
Dentate nucleus
Striae medullares
Vestibular area
Inferior fovea
Trigeminal
Obex
Gracile tubercle

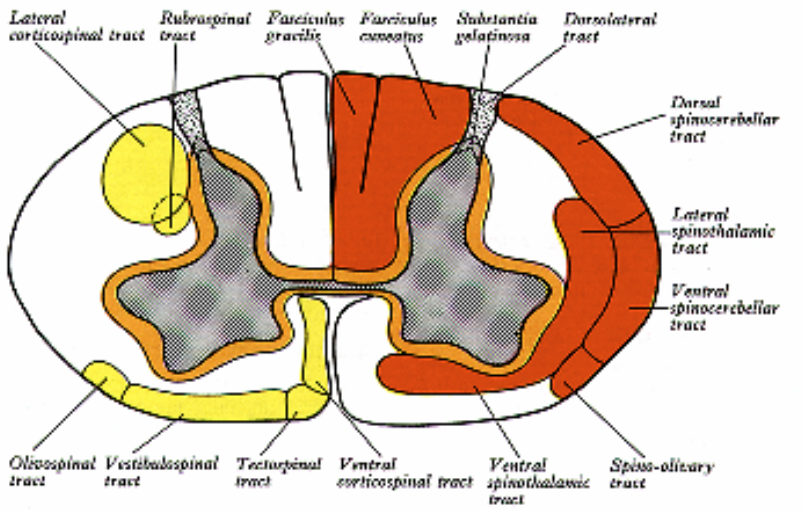

Internal capsule
Optic tract
Thalamus, pulvinar
Superior colliculus
Brachium of inferior colliculus
Optic N.
Inferior colliculus
Lateral geniculate body
Spinothalamic tract
Medial geniculate body
Lateral lemniscus
Crus cerebri
Superior cerebellar peduncle
Middle cerebellar peduncle
Pons
Inferior cerebellar peduncle
Vestibulocochlear N.
Posterior spinocerebellar tract
Olive
Tubercle of nucleus gracilis
Pyramid
Spinal tract of trigeminal N.
Fasciculus cuneatus
Lateral funiculus of spinal medulla

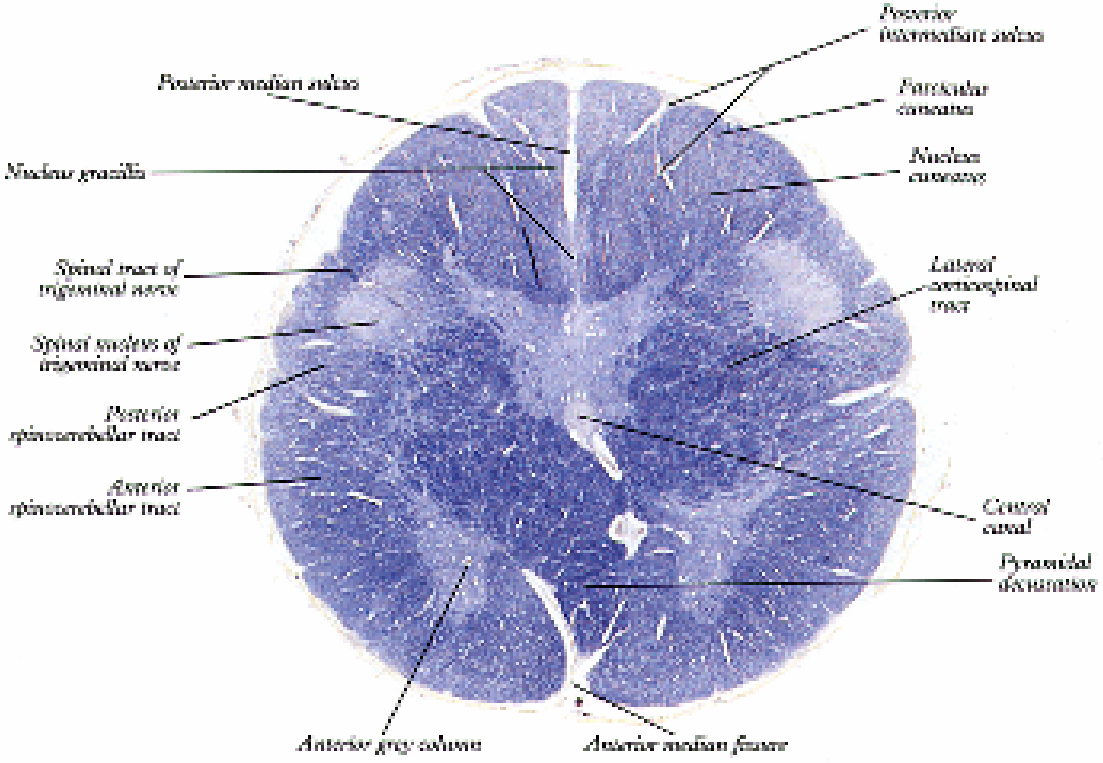

Interthalamic adhesion in 3rd ventricle
Habenular triangle
Pineal body
Thalamus
Superior colliculus
Brachium of inferior colliculus
Crus cerebri
Inferior colliculus
Spinothalamic tract
Lateral lemniscus
Superior cerebellar peduncle
Superior fovea
Middle cerebellar peduncle
Facial colliculus
Inferior cerebellar peduncle
Vestibular area
Striae medullares
Inferior fovea
Hypoglossal triangle
Vagal triangle
Tubercle of nucleus gracilis
Fasciculus cuneatus

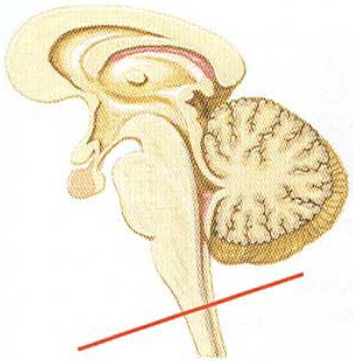

Optic chiasma
Optic N.
Infundibulum
Optic tract
Mamillary body
Oculomotor N.
Crus cerebri
Trochlear N.
Posterior perforated substance
Motor root
trigeminal N
Junction of pons and middle cerebellar peduncle
Sensory root
Abducent N.
Nervus intermedius
Vestibulocochlear N.
Flocculus
Facial N.
Choroid plexus at lateral aperture 4th ventricle
Glossopharyngeal N.
Vagus N.
Olive
Accessory N.
Hypoglossal N.
Pyramid
Ventral root of C.1
Pyramidal decussation


Cerebral aqueduct
Midbrain
Fourth ventricle
Choroid plexus
Nodule
Pons
Tela choroidea
Pontine cistern
Cerebellomedullary cistern
Medulla oblongata

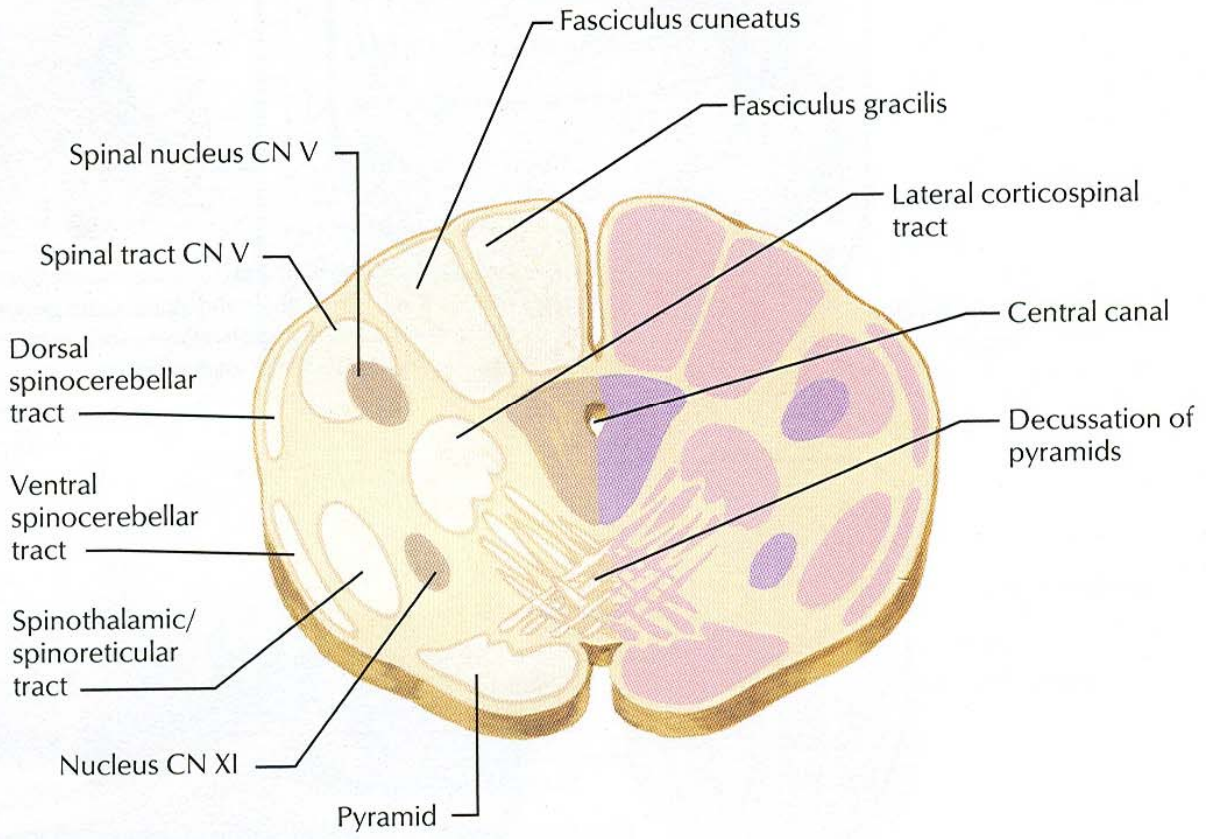

Lateral corticospinal tract
Rubrospinal tract
Fasciculus gracilis
Fasciculus cuneatus
Substantia gelatinosa
Dorsolateral tract
Dorsal spinocerebellar tract
Lateral spinothalamic tract
Ventral spinocerebellar tract
Olivospinal tract
Vestibulospinal tract
Tectospinal tract
Ventral corticospinal tract
Ventral spinothalamic tract
Spino-olivary tract

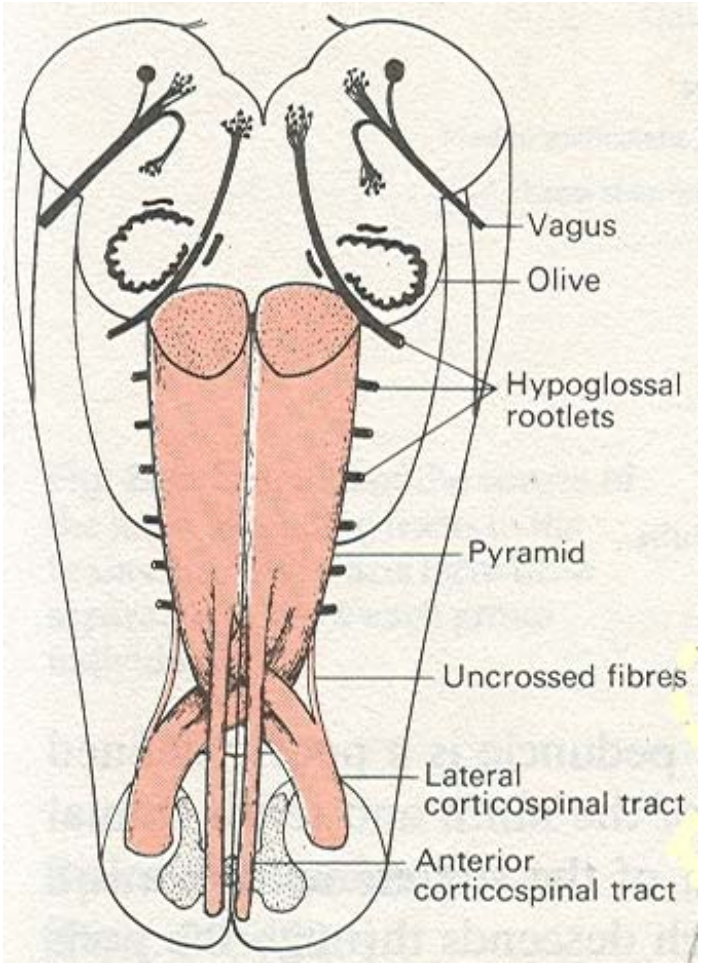

Lateral corticospinal tract
Rubrospinal tract
Fasciculus gracilis
Fasciculus cuneatus
Substantia gelatinosa
Dorsolateral tract
Dorsal spinocerebellar tract
Lateral spinothalamic tract
Ventral spinocerebellar tract
Olivospinal tract
Vestibulospinal tract
Tectospinal tract
Ventral corticospinal tract
Ventral spinothalamic tract
Spino-olivary tract

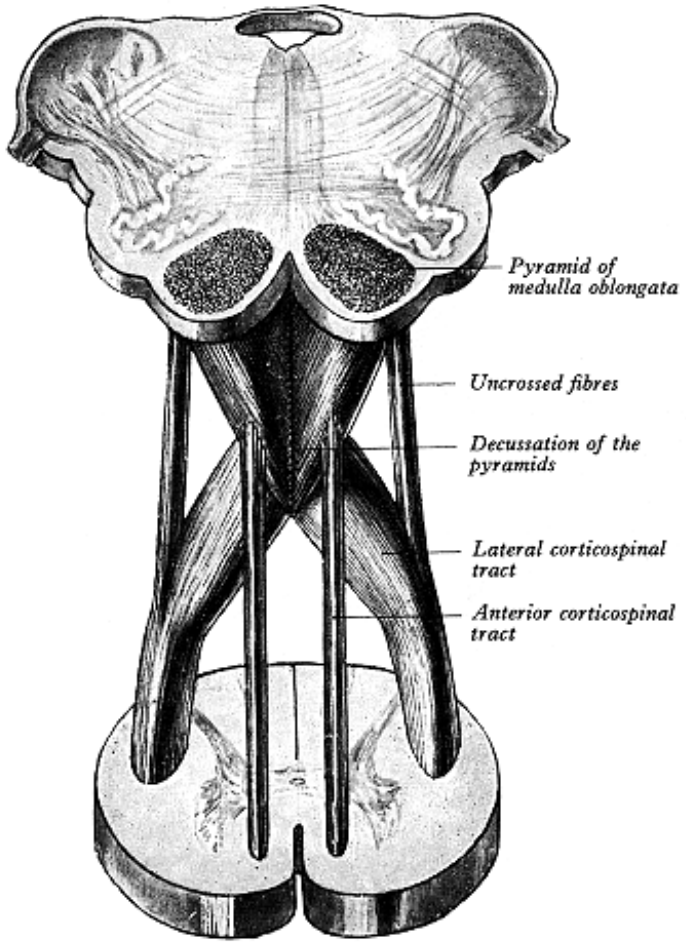

Posterior intermediate sulcus
Posterior median sulcus
Fasciculus cuneatus
Nucleus gracilis
Nucleus cuneatus
Spinal tract of trigeminal nerve
Lateral corticospinal tract
Spinal nucleus of trigeminal nerve
Posterior spinocerebellar tract
Anterior spinocerebellar tract
Central canal
Pyramidal decussation
Anterior grey column
Anterior median fissure

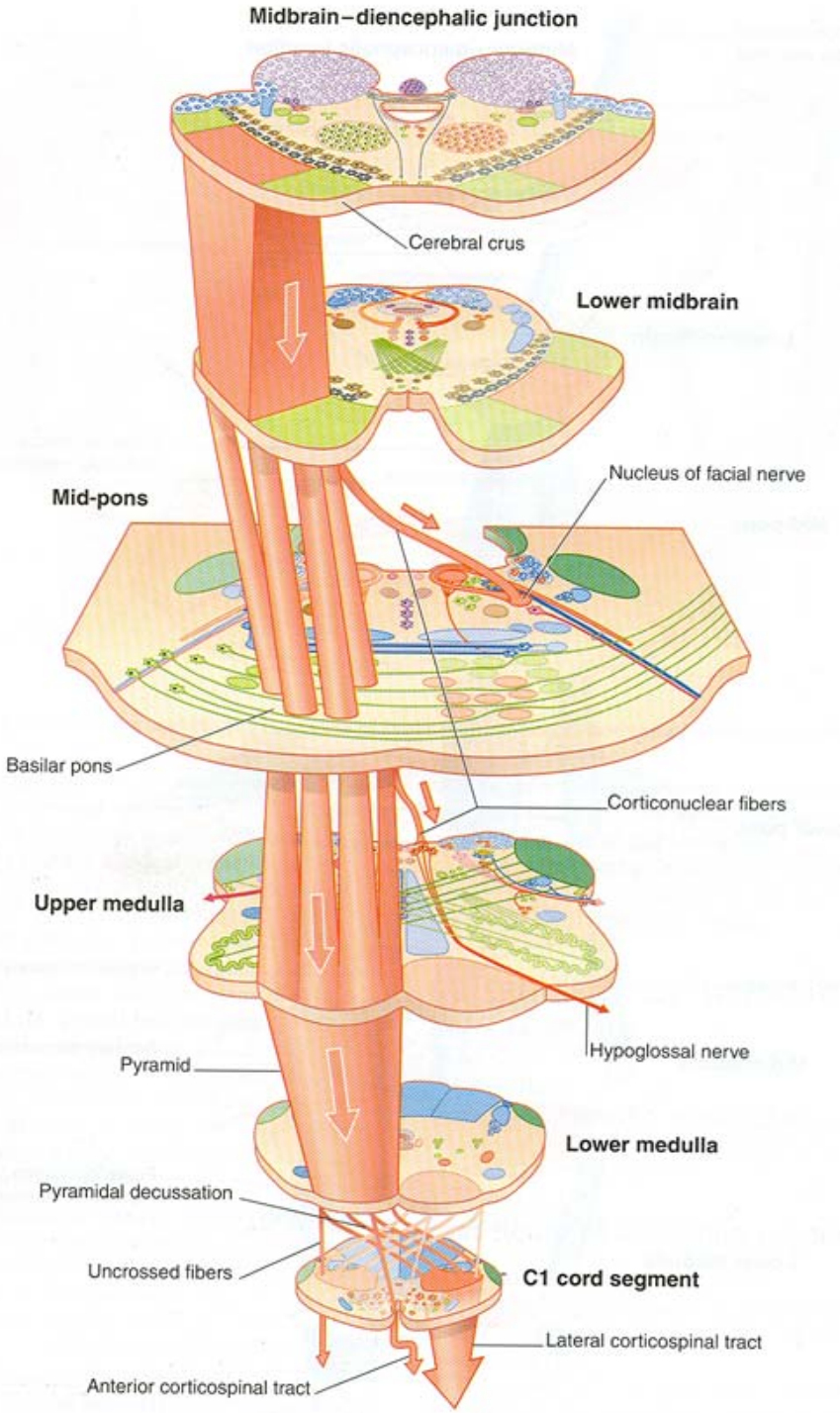


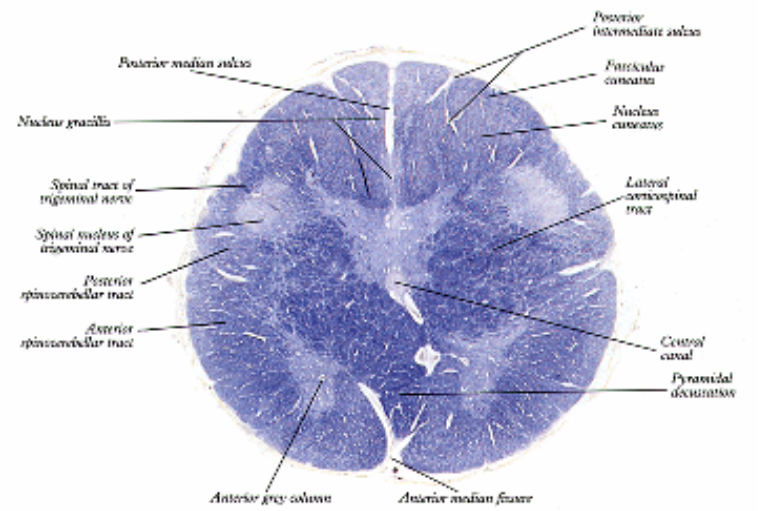
Level of section

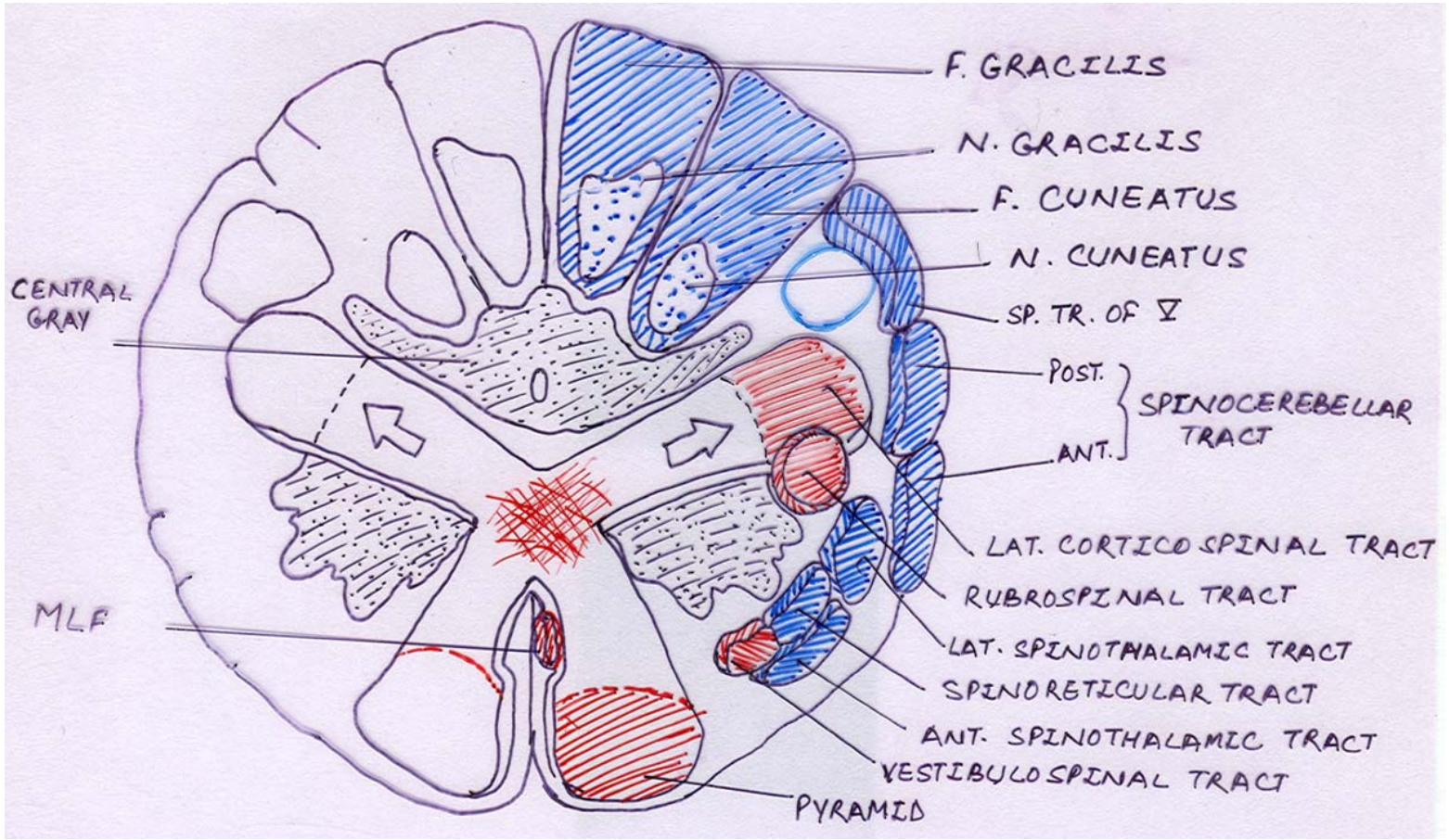


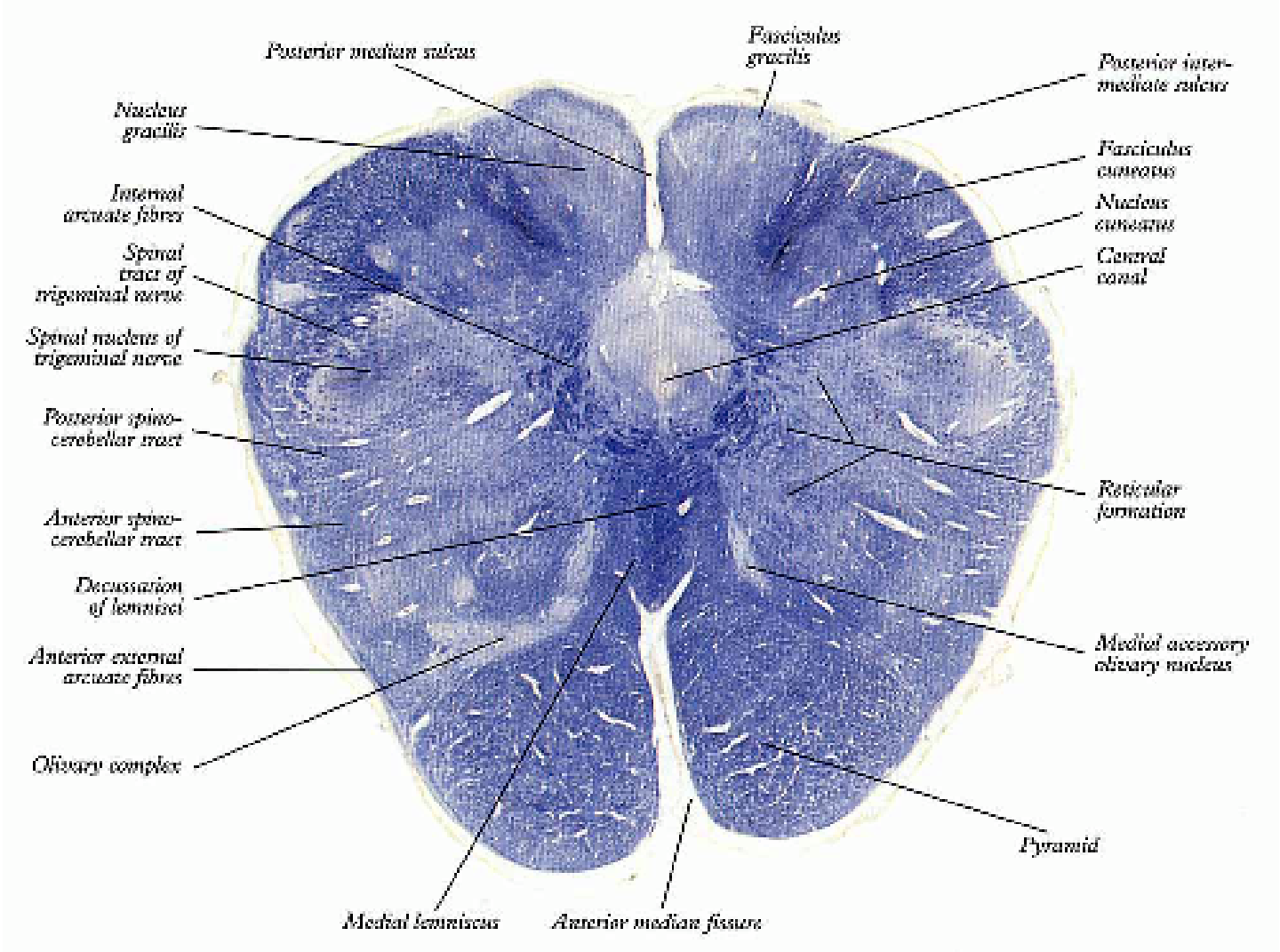

Vagus
Olive
Hypoglossal rootlets
Pyramid
Uncrossed fibres
Lateral corticospinal tract
Anterior corticospinal tract

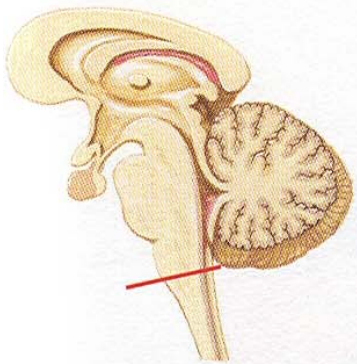

Pyramid of medulla oblongata
Uncrossed fibres
Decussation of the pyramids
Lateral corticospinal tract
Anterior corticospinal tract


Midbrain–diencephalic junction
Cerebral crus
Lower midbrain
Nucleus of facial nerve
Mid-pons
Basilar pons
Corticonuclear fibers
Upper medulla
Hypoglossal nerve
Pyramid
Lower medulla
Pyramidal decussation
Uncrossed fibers
C1 cord segment
Lateral corticospinal tract
Anterior corticospinal tract

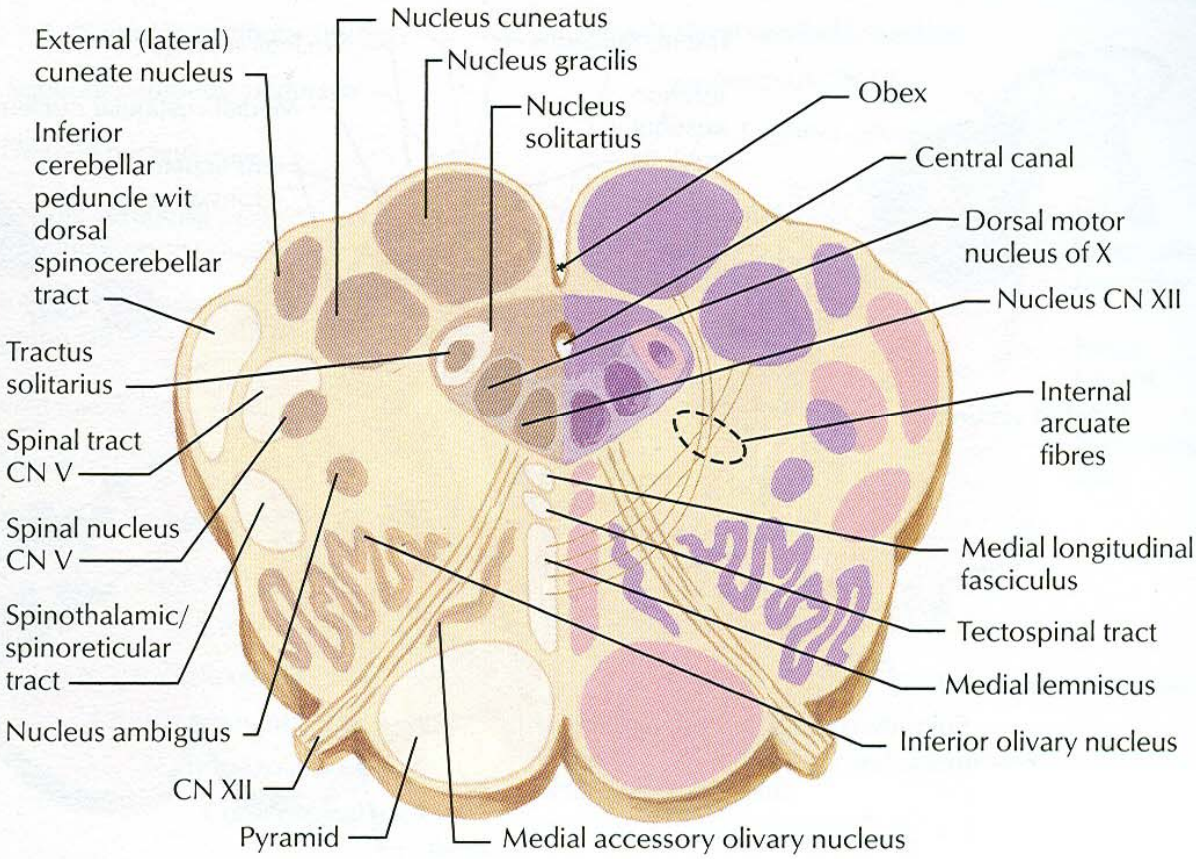

Posterior intermediate sulcus
Posterior median sulcus
Fasciculus cuneatus
Nucleus gracilis
Nucleus cuneatus
Spinal tract of trigeminal nerve
Lateral corticospinal tract
Spinal nucleus of trigeminal nerve
Posterior spinocerebellar tract
Anterior spinocerebellar tract
Central canal
Pyramidal decussation
Anterior grey column
Anterior median fissure

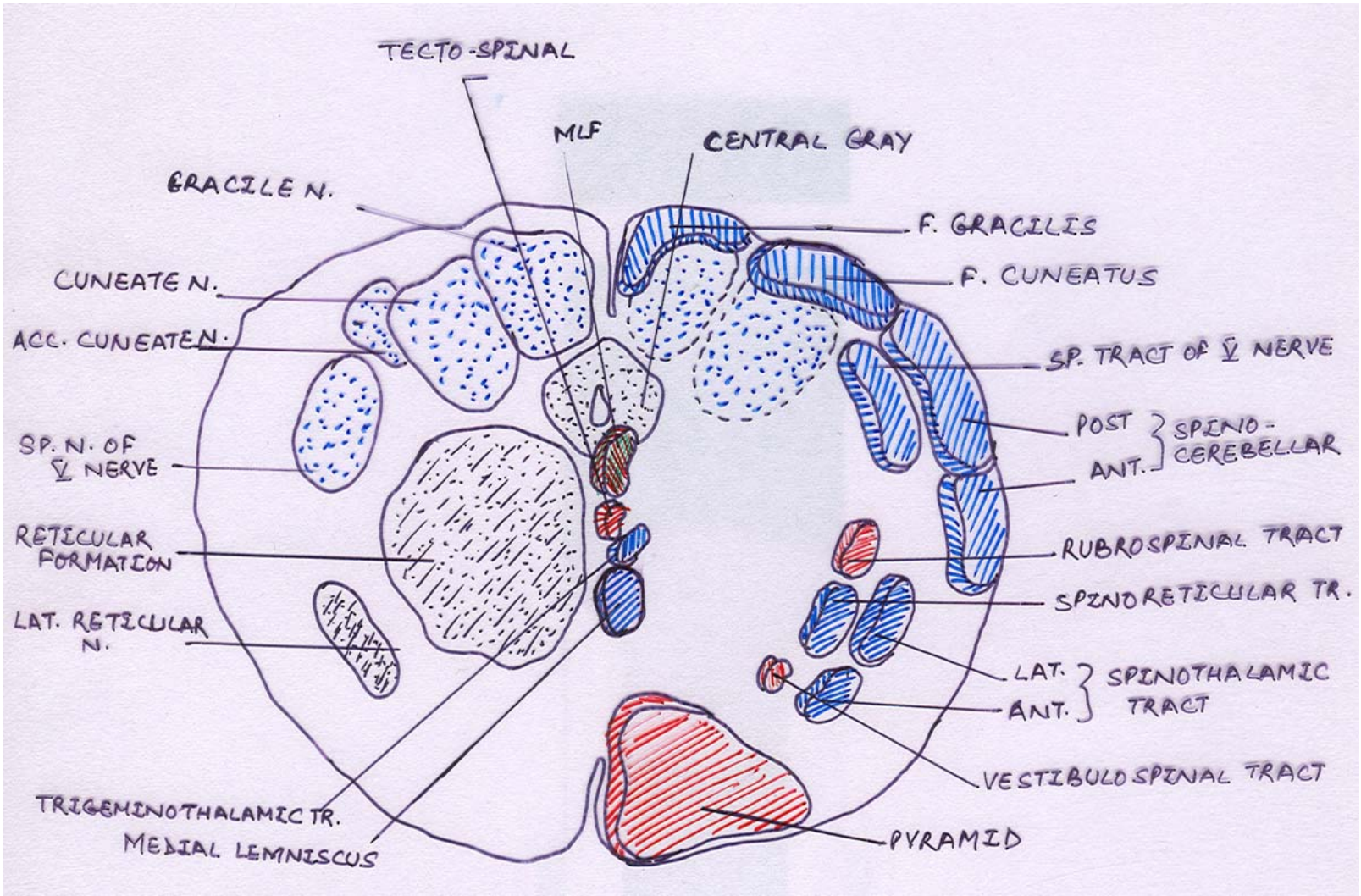

F. GRACILIS
N. GRACILIS
F. CUNEATUS
N. CUNEATUS
SP. TR. OF V
CENTRAL GRAY
POST.
ANT.
SPINOCEREBELLAR TRACT
LAT. CORTICOSPINAL TRACT
RUBROSPINAL TRACT
MLF
LAT. SPINOTHALAMIC TRACT
SPINORETICULAR TRACT
ANT. SPINOTHALAMIC TRACT
VESTIBULOSPINAL TRACT
PYRAMID

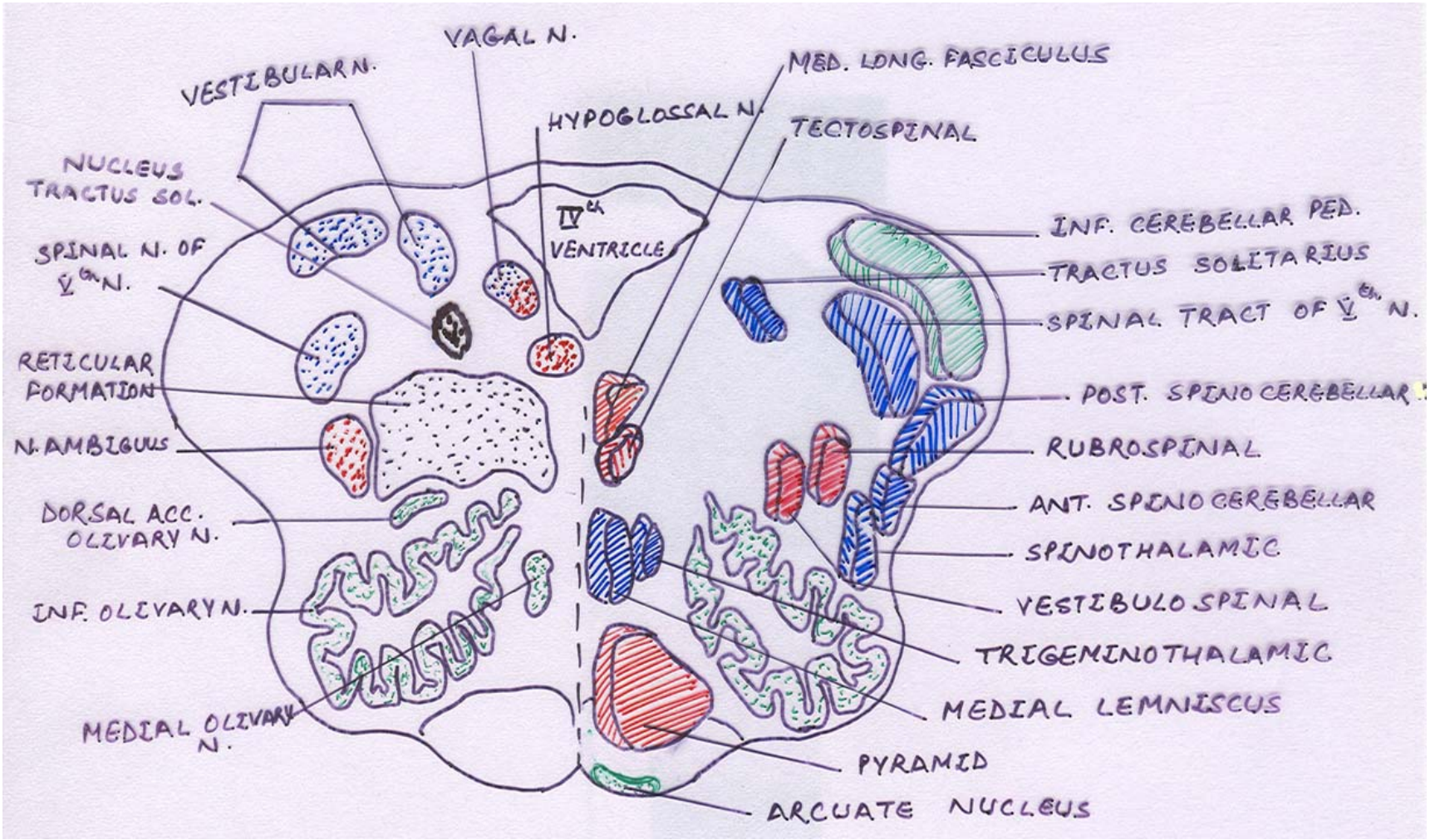

Posterior median sulcus
Fasciculus gracilis
Posterior intermediate sulcus
Nucleus gracilis
Fasciculus cuneatus
Internal arcuate fibres
Nucleus cuneatus
Spinal tract of trigeminal nerve
Central canal
Spinal nucleus of trigeminal nerve
Posterior spinocerebellar tract
Reticular formation
Anterior spinocerebellar tract
Decussation of lemnisci
Medial accessory olivary nucleus
Anterior external arcuate fibres
Olivary complex
Pyramid
Medial lemniscus
Anterior median fissure

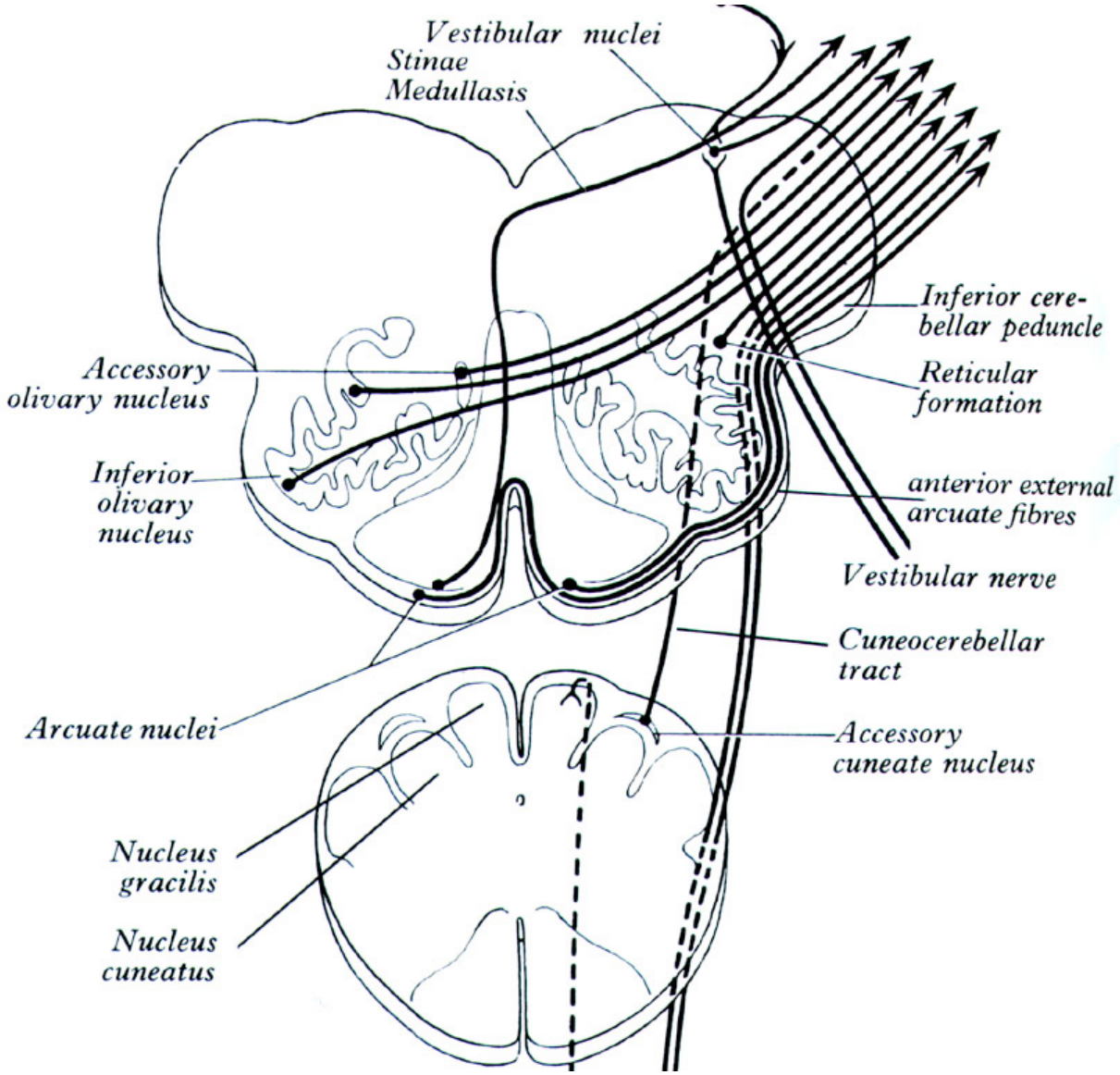


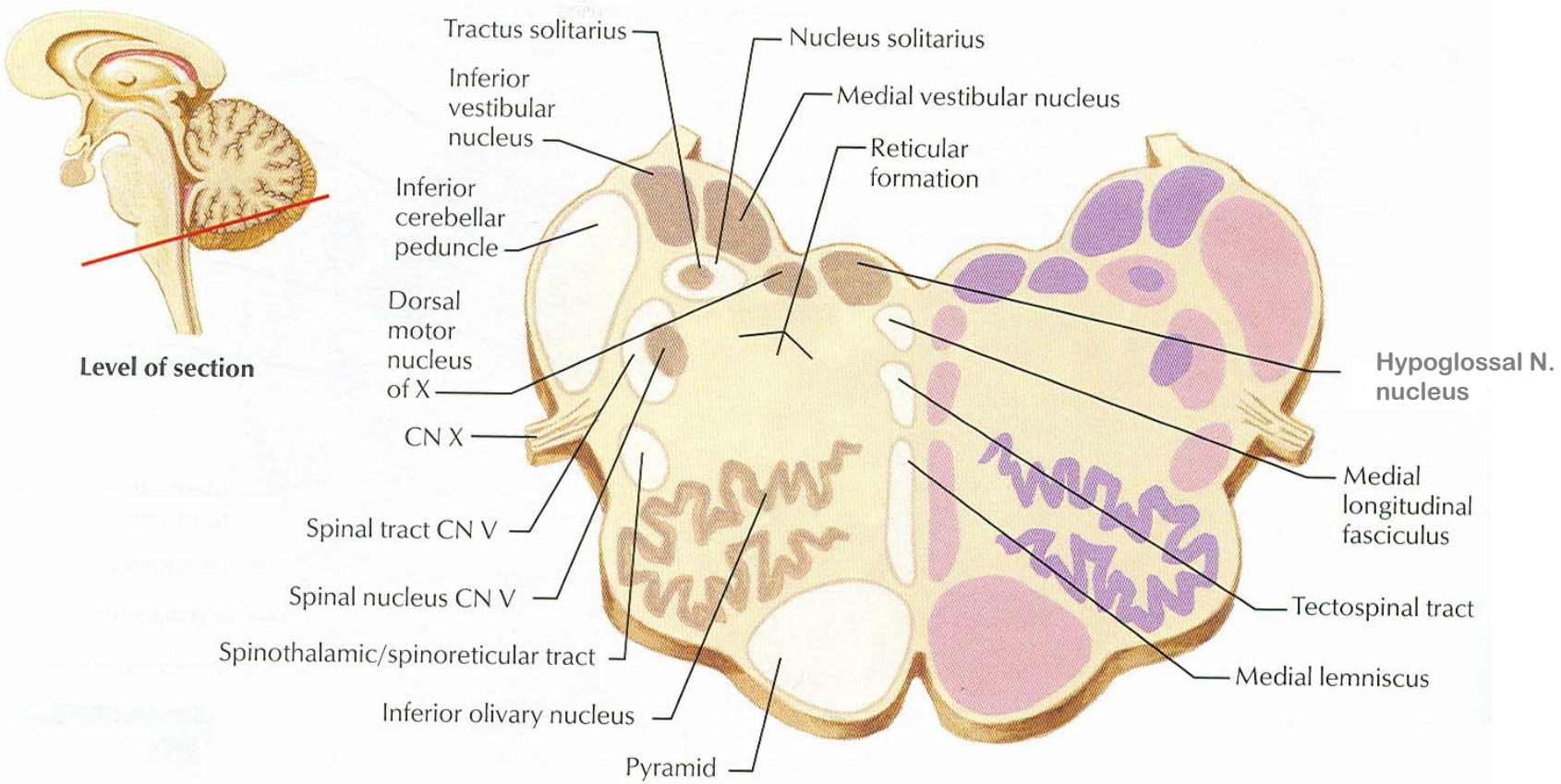
Level of section

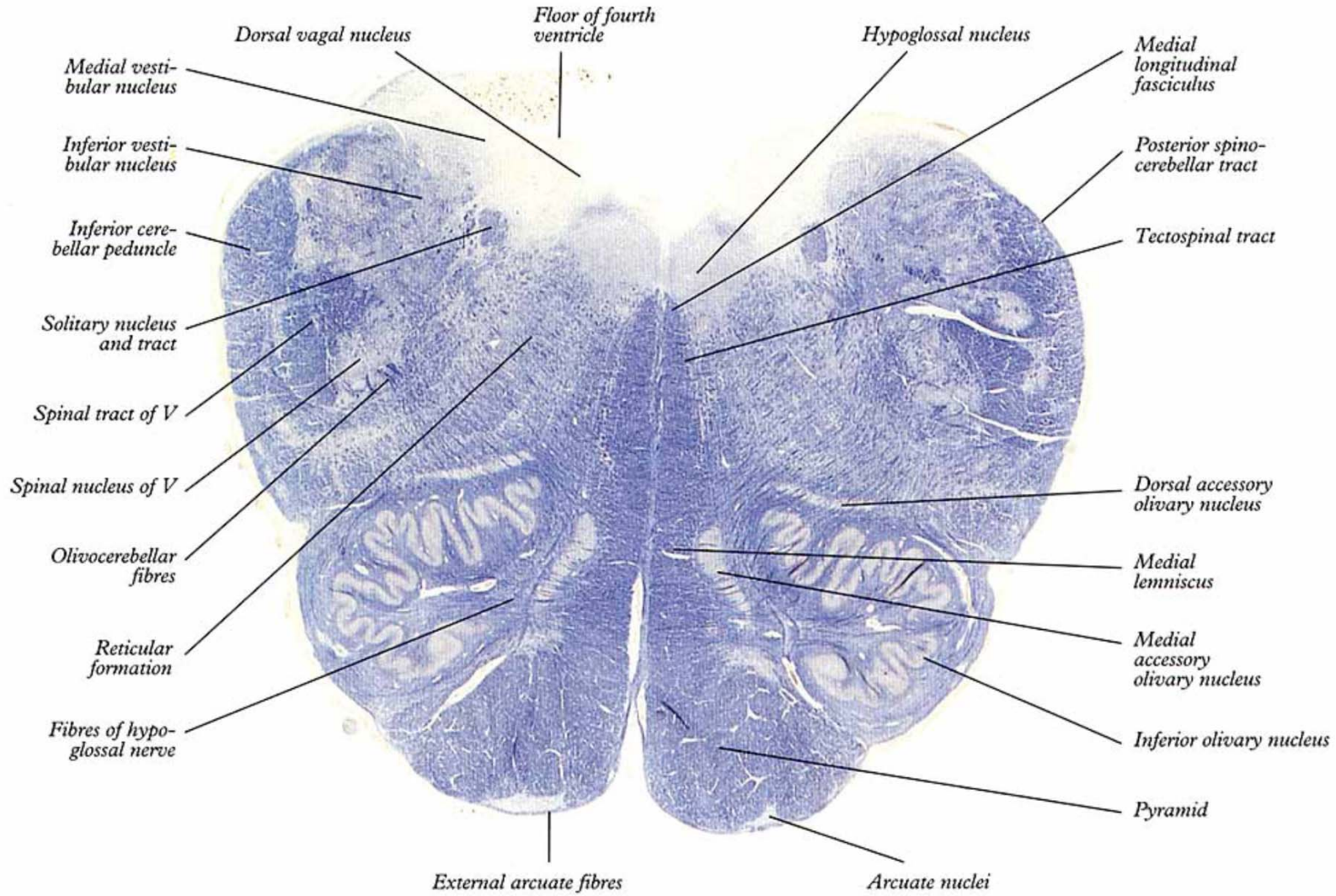


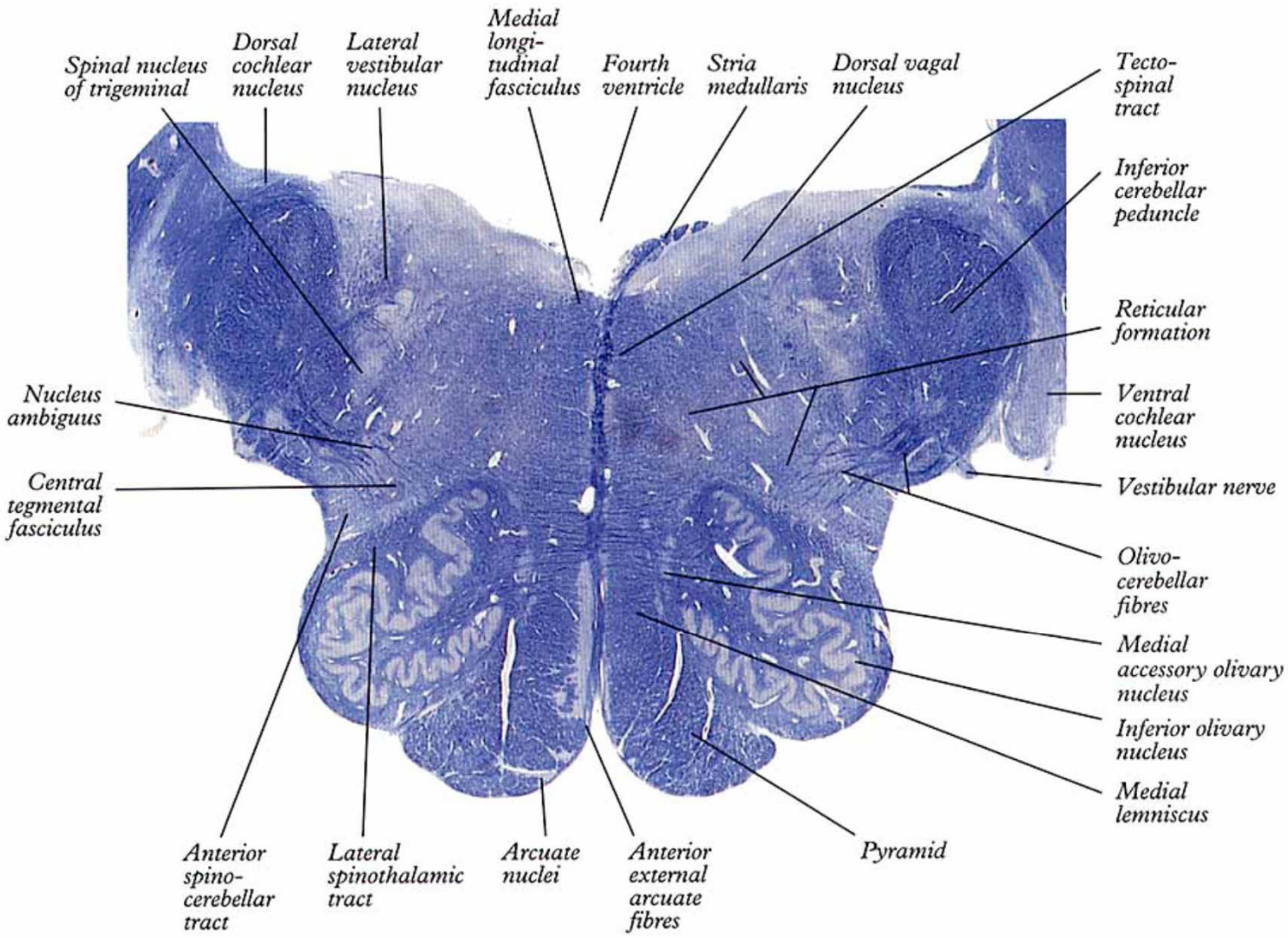

TECTO-SPINAL
MLF
CENTRAL GRAY
GRACILE N.
F. GRACILIS
CUNEATE N.
F. CUNEATUS
ACC. CUNEATE N.
SP. TRACT OF V NERVE
POST
ANT.
SPINO-CEREBELLAR
SP. N. OF V NERVE
RETICULAR FORMATION
RUBROSPINAL TRACT
SPINORETICULAR TR.
LAT. RETICULAR N.
LAT.
ANT.
SPINOTHALAMIC TRACT
VESTIBULOSPINAL TRACT
TRIGEMINOTHALAMIC TR.
MEDIAL LEMNISCUS
PYRAMID


VESTIBULAR N.
VAGAL N.
HYPOGLOSSAL N.
MED. LONG. FASCICULUS
TECTOSPINAL
NUCLEUS TRACTUS SOL.
SPINAL N. OF V GN. N.
IV TH VENTRICLE
RETICULAR FORMATION
N. AMBIGUUS
DORSAL ACC. OLIVARY N.
INF. OLIVARY N.
MEDIAL OLIVARY N.
INF. CEREBELLAR PED.
TRACTUS SOLITARIUS
SPINAL TRACT OF V GN. N.
POST. SPINOCEREBELLAR
RUBROSPINAL
ANT. SPINOCEREBELLAR
SPINOTHALAMIC
VESTIBULOSPINAL
TRIGEMINOTHALAMIC
MEDIAL LEMNISCUS
PYRAMID
ARCUATE NUCLEUS


Vestibular nuclei
Stinae
Medullasis
Inferior cerebellar peduncle
Reticular formation
Accessory olivary nucleus
Inferior olivary nucleus
anterior external arcuate fibres
Vestibular nerve
Cuneocerebellar tract
Arcuate nuclei
Accessory cuneate nucleus
Nucleus gracilis
Nucleus cuneatus


Level of section
Tractus solitarius
Nucleus solitarius
Inferior vestibular nucleus
Medial vestibular nucleus
Reticular formation
Inferior cerebellar peduncle
Dorsal motor nucleus of X
CN X
Spinal tract CN V
Spinal nucleus CN V
Spinothalamic/spinoreticular tract
Inferior olivary nucleus
Pyramid
Hypoglossal N. nucleus
Medial longitudinal fasciculus
Tectospinal tract
Medial lemniscus


Floor of fourth ventricle
Dorsal vagal nucleus
Hypoglossal nucleus
Medial vestibular nucleus
Medial longitudinal fasciculus
Inferior vestibular nucleus
Posterior spinocerebellar tract
Inferior cerebellar peduncle
Tectospinal tract
Solitary nucleus and tract
Spinal tract of V
Spinal nucleus of V
Dorsal accessory olivary nucleus
Olivocerebellar fibres
Medial lemniscus
Reticular formation
Medial accessory olivary nucleus
Fibres of hypoglossal nerve
Inferior olivary nucleus
Pyramid
External arcuate fibres
Arcuate nuclei


Spinal nucleus of trigeminal
Dorsal cochlear nucleus
Lateral vestibular nucleus
Medial longi-tudinal fasciculus
Fourth ventricle
Stria medullaris
Dorsal vagal nucleus
Tecto-spinal tract
Inferior cerebellar peduncle
Reticular formation
Nucleus ambiguus
Ventral cochlear nucleus
Central tegmental fasciculus
Vestibular nerve
Olivo-cerebellar fibres
Medial accessory olivary nucleus
Inferior olivary nucleus
Medial lemniscus
Anterior spino-cerebellar tract
Lateral spinothalamic tract
Arcuate nuclei
Anterior external arcuate fibres
Pyramid

INFERIOR CEREBELLAR PEDUNCLE

A) Afferent:

1.Posterior spinocerebellar tract

2. Cuneocerebellar tract (Posterior external arcuate)

3. Olivocerebellar tract

4. Parolivocerebellar tracts

5. Reticulocerebellar Tract

6. Vestibulocerebellar tract

7. Anterior external arcuate fibres

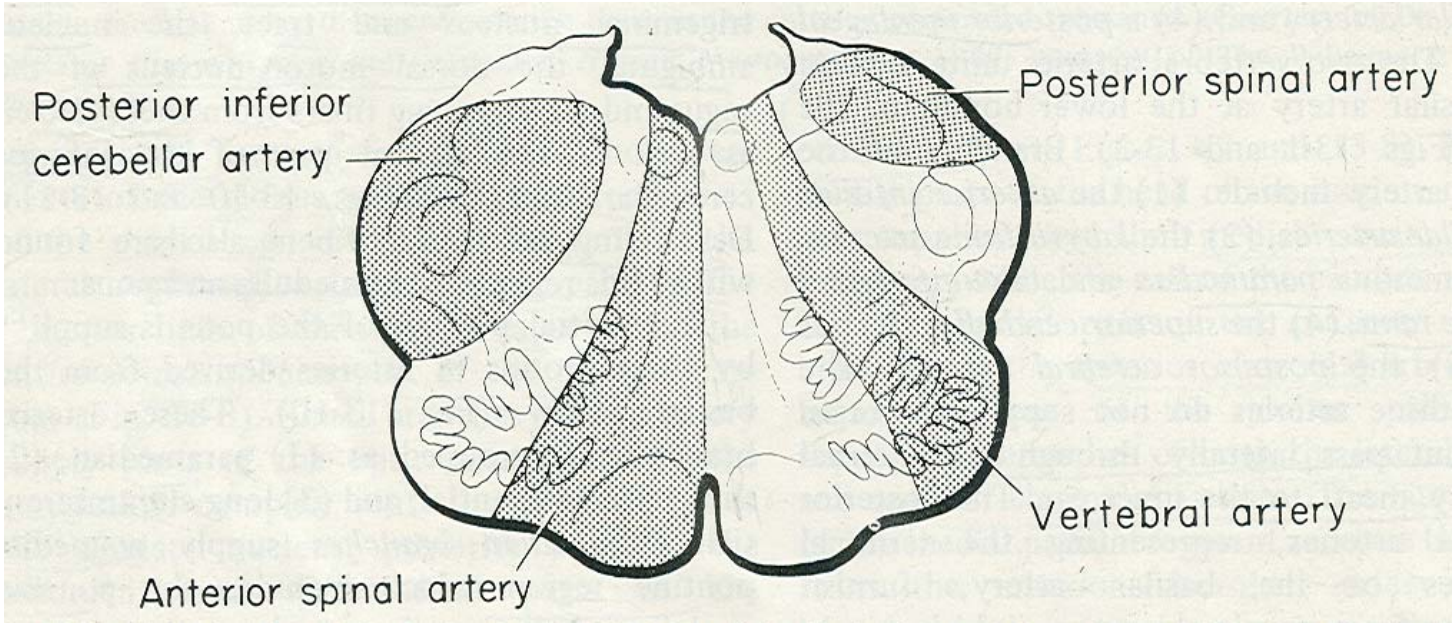
8. Striae medullares

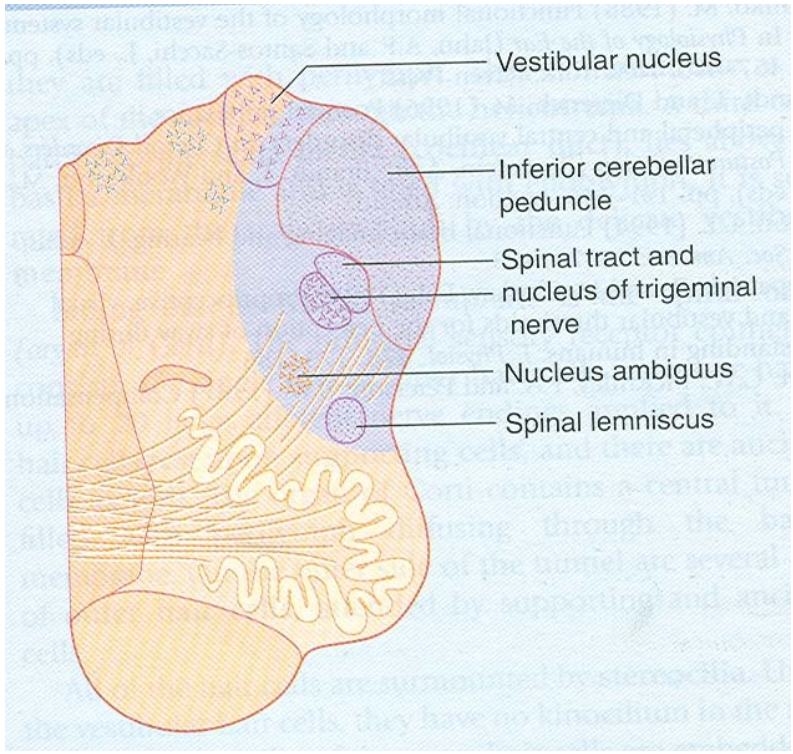
9. Trigeminocerebellar fibres

INFERIOR CEREBELLAR PEDUNCLE

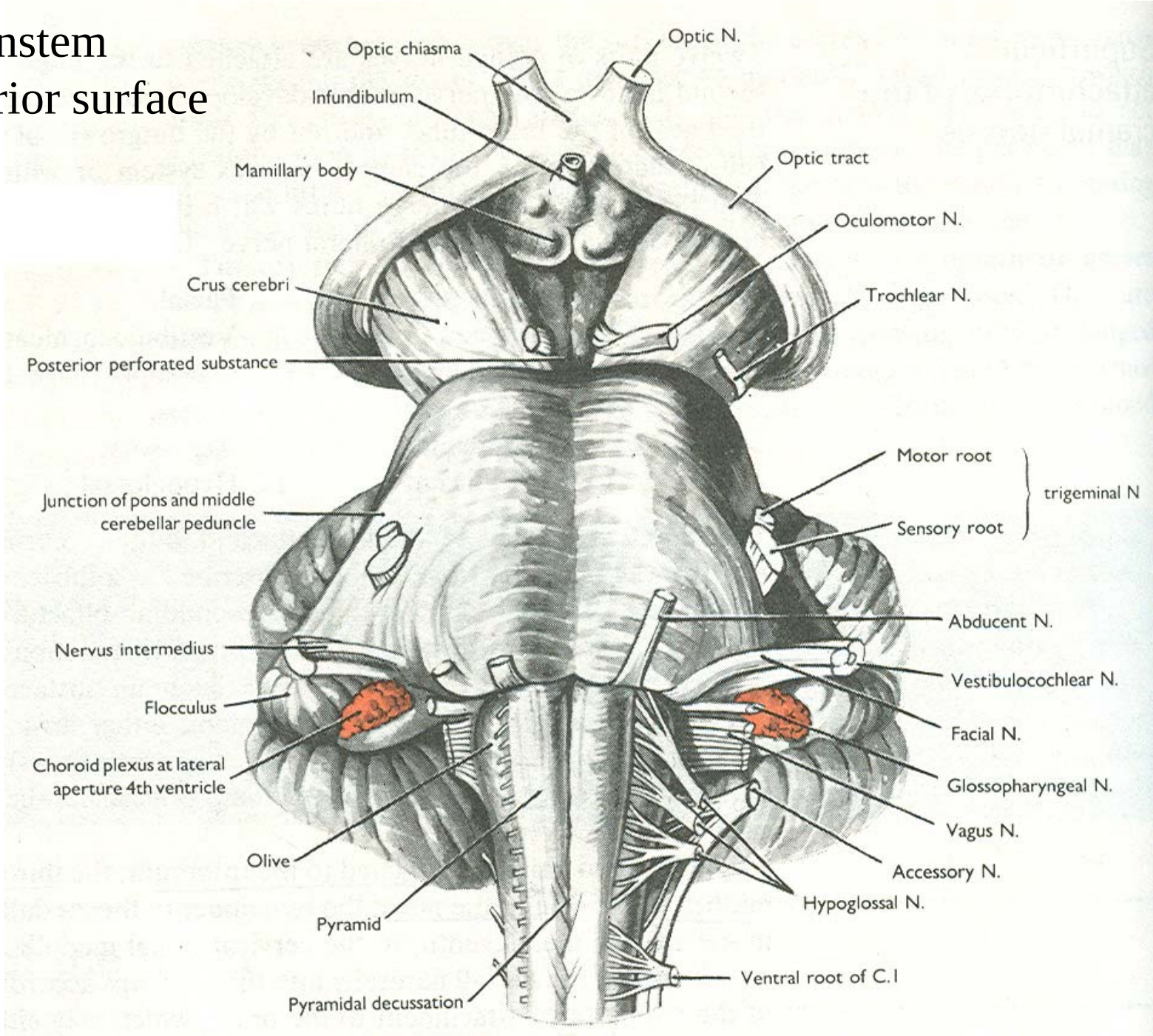
B) Efferent:

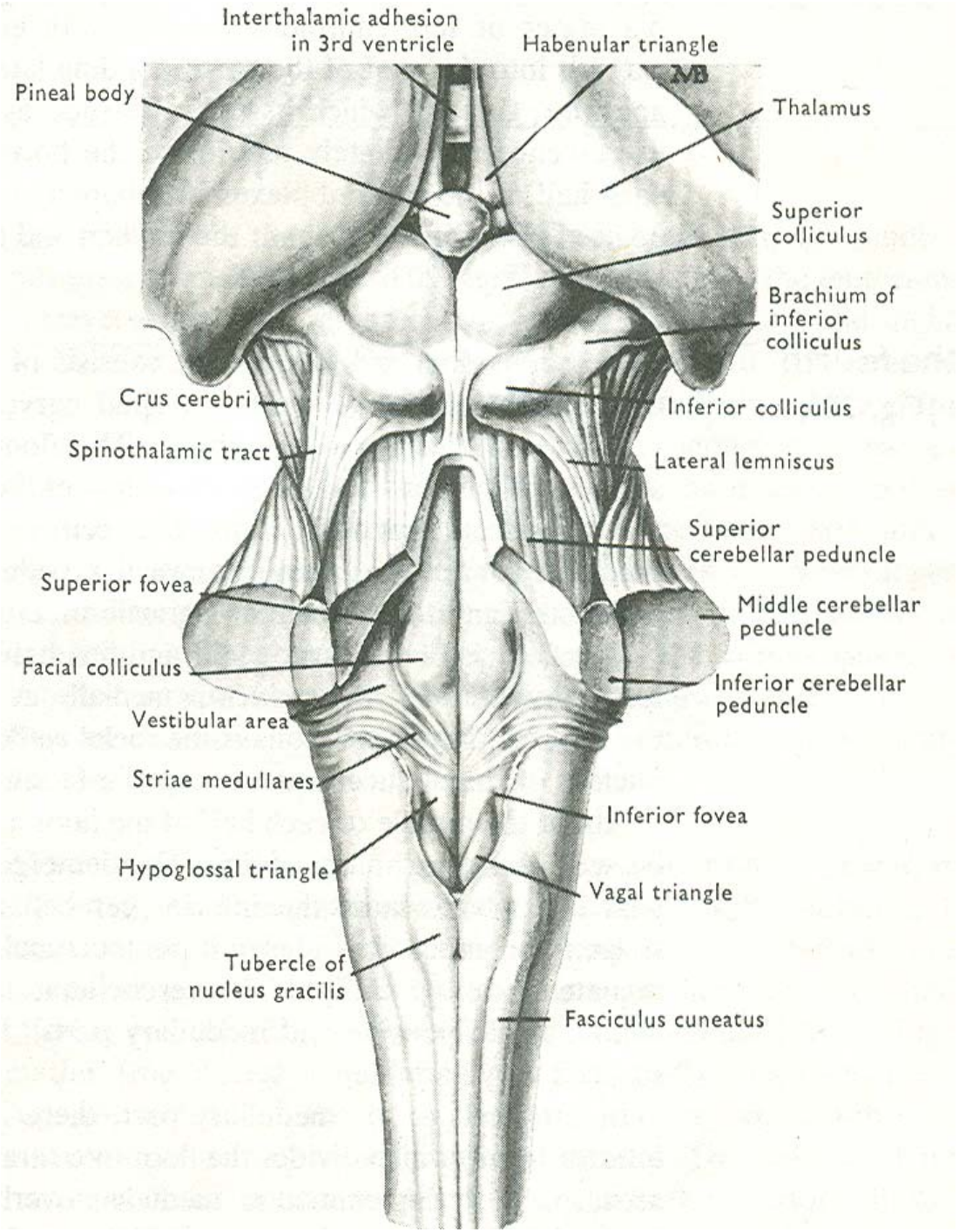
1. Cerebello-Olivary fibres
2. Cerebellovestibular fibres
3. Cerebelloreticular fibres

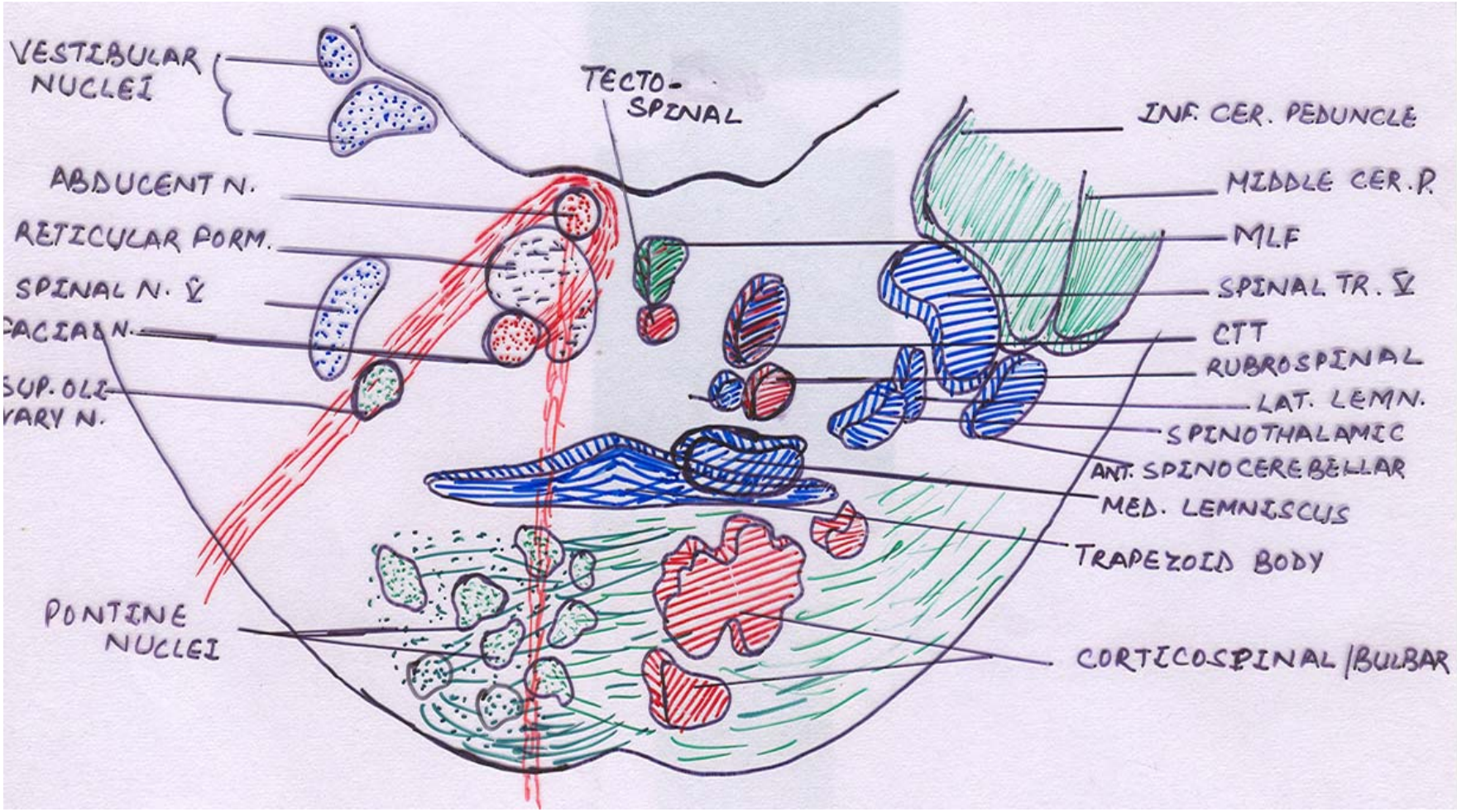

Posterior inferior
cerebellar artery
Posterior spinal artery
Vertebral artery
Anterior spinal artery

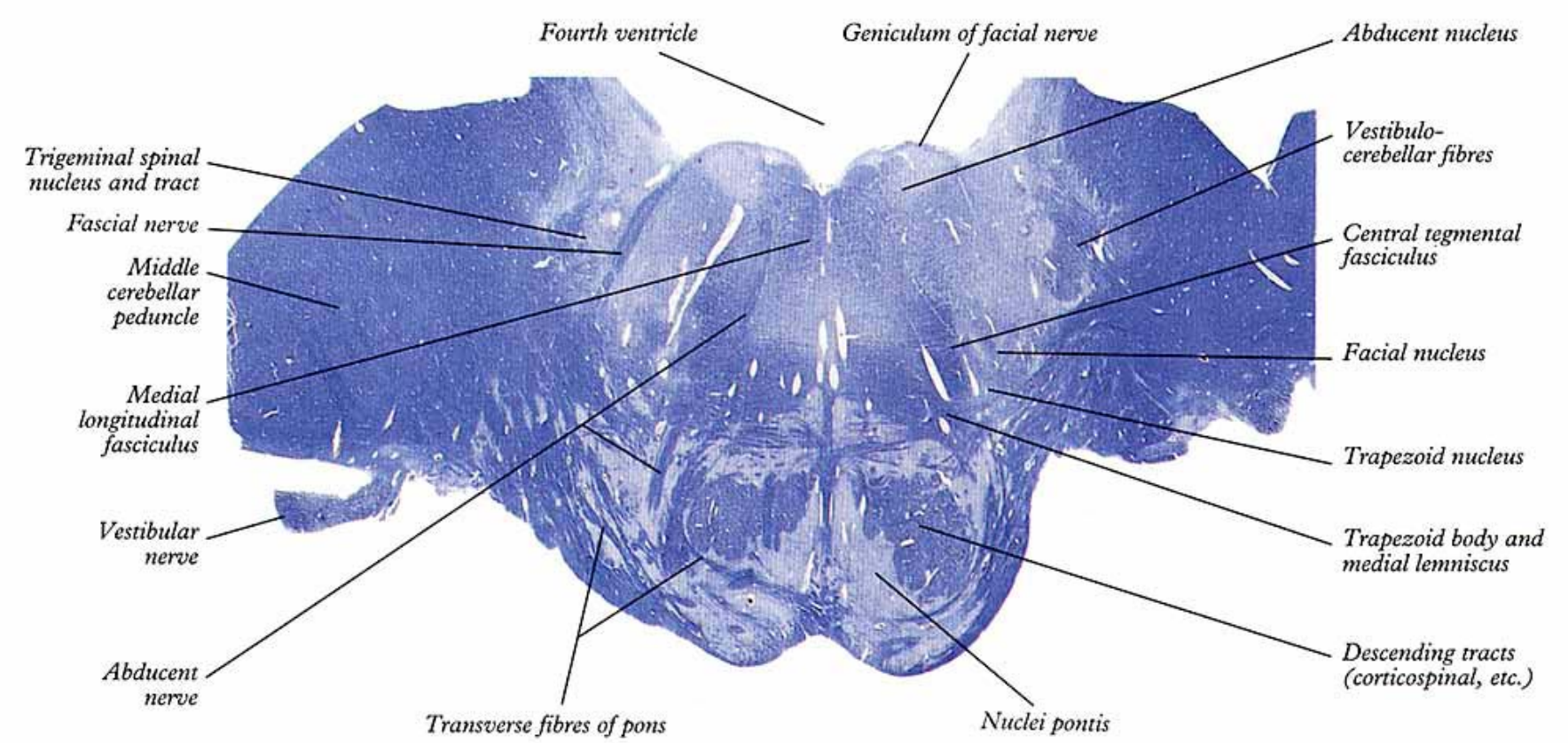

Vestibular nucleus
Inferior cerebellar
peduncle
Spinal tract and
nucleus of trigeminal
nerve
Nucleus ambiguus
Spinal lemniscus

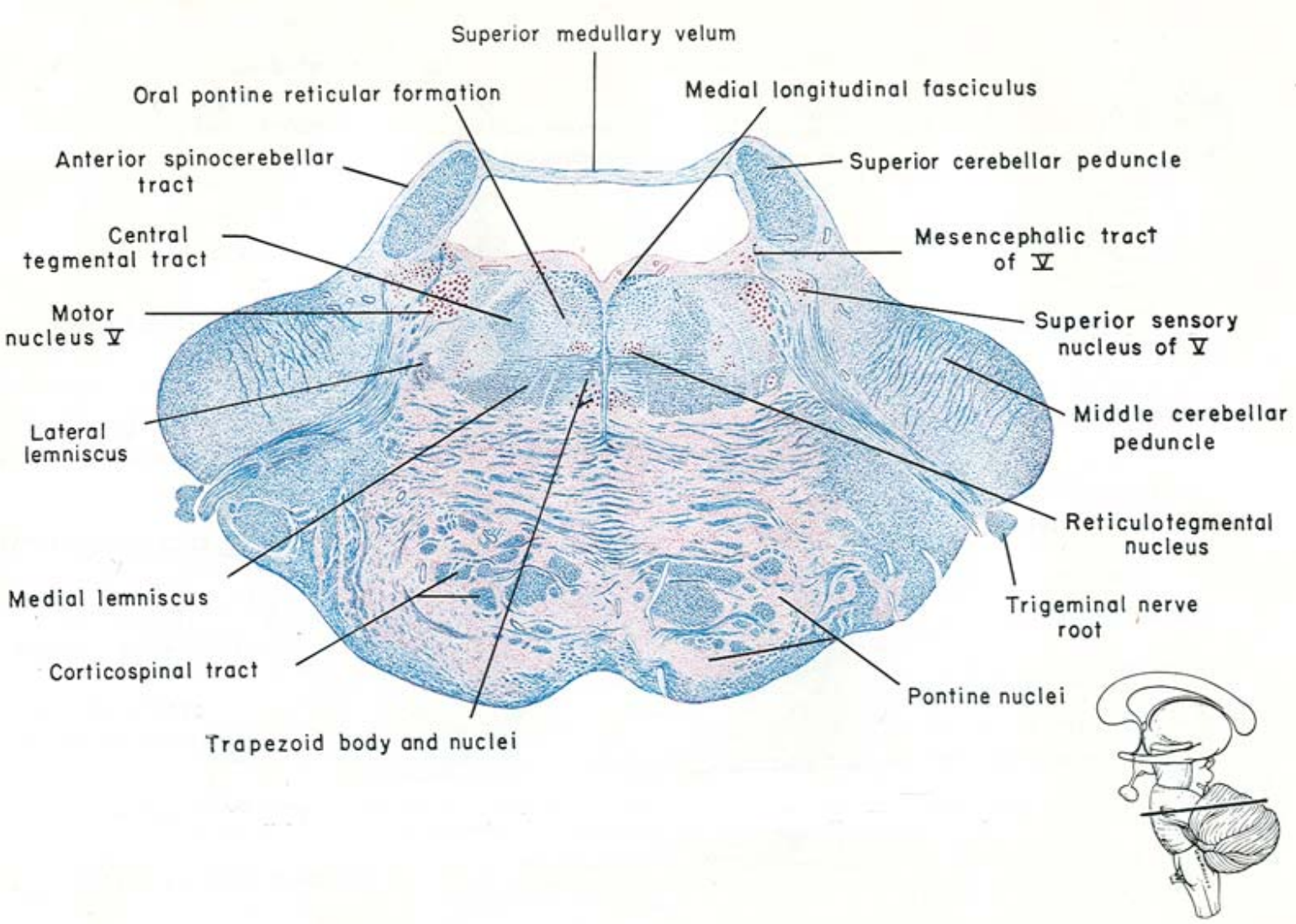
Brainstem anterior surface

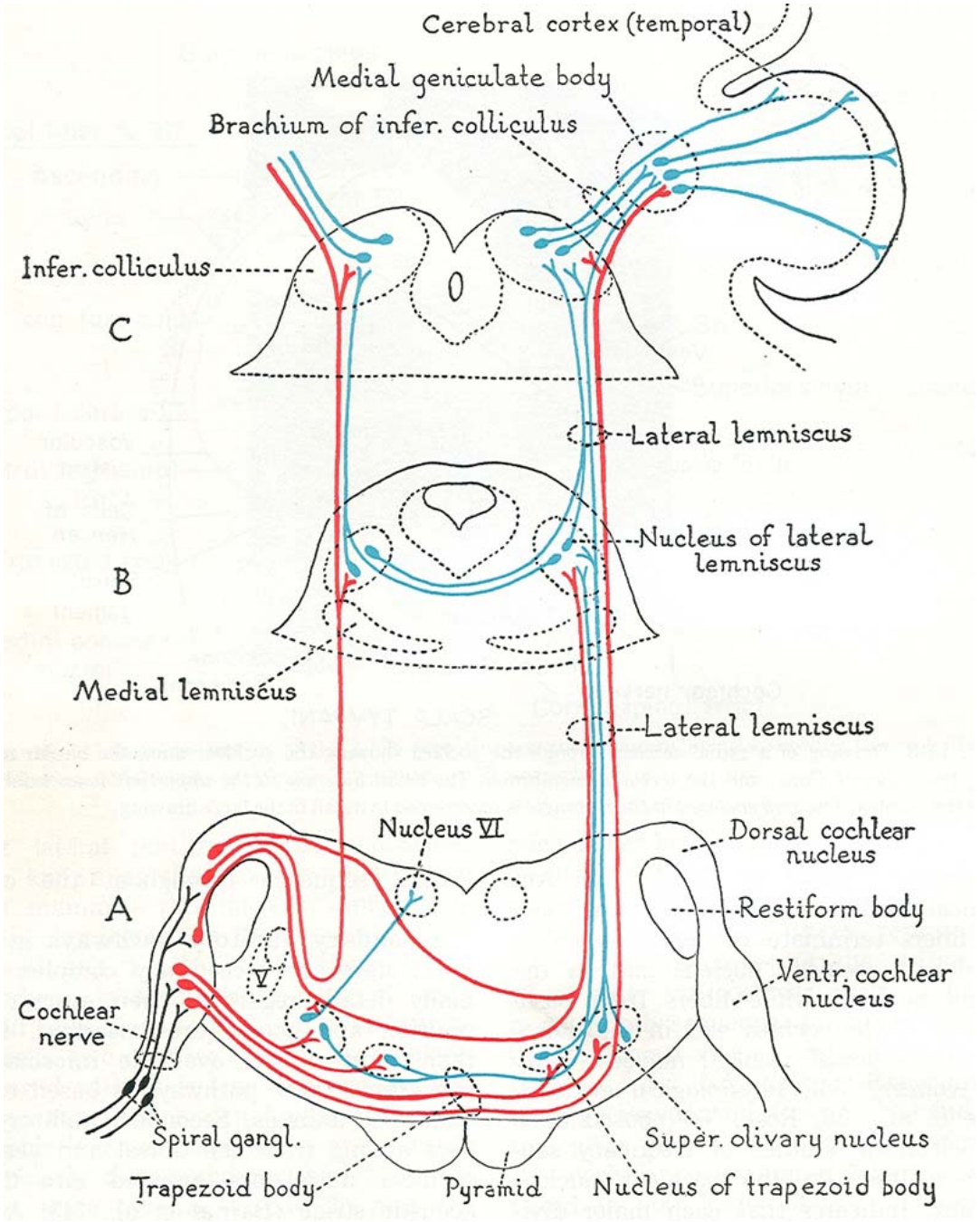


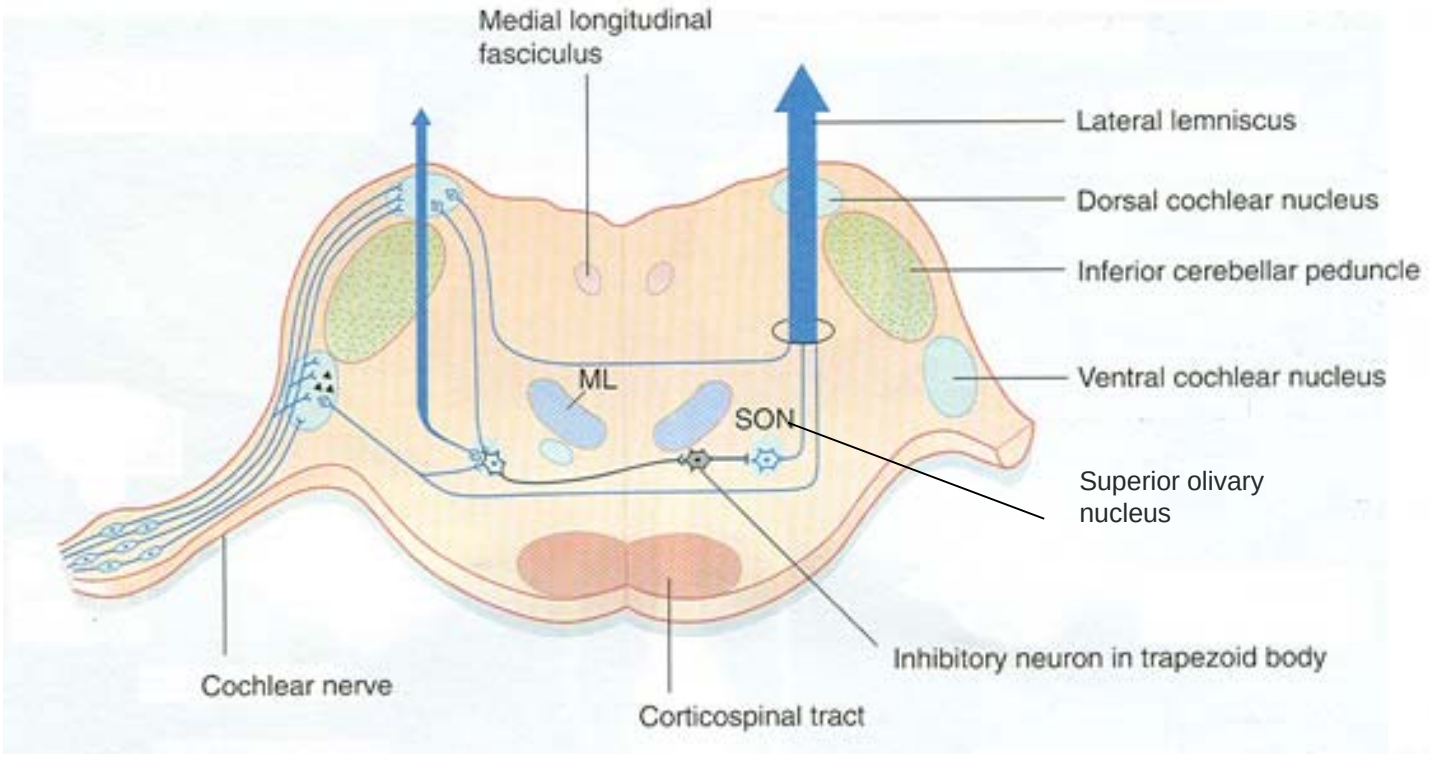

Interthalamic adhesion in 3rd ventricle
Habenular triangle
Pineal body
Thalamus
Superior colliculus
Brachium of inferior colliculus
Crus cerebri
Inferior colliculus
Spinothalamic tract
Lateral lemniscus
Superior cerebellar peduncle
Superior fovea
Middle cerebellar peduncle
Facial colliculus
Inferior cerebellar peduncle
Vestibular area
Striae medullares
Inferior fovea
Hypoglossal triangle
Vagal triangle
Tubercle of nucleus gracilis
Fasciculus cuneatus

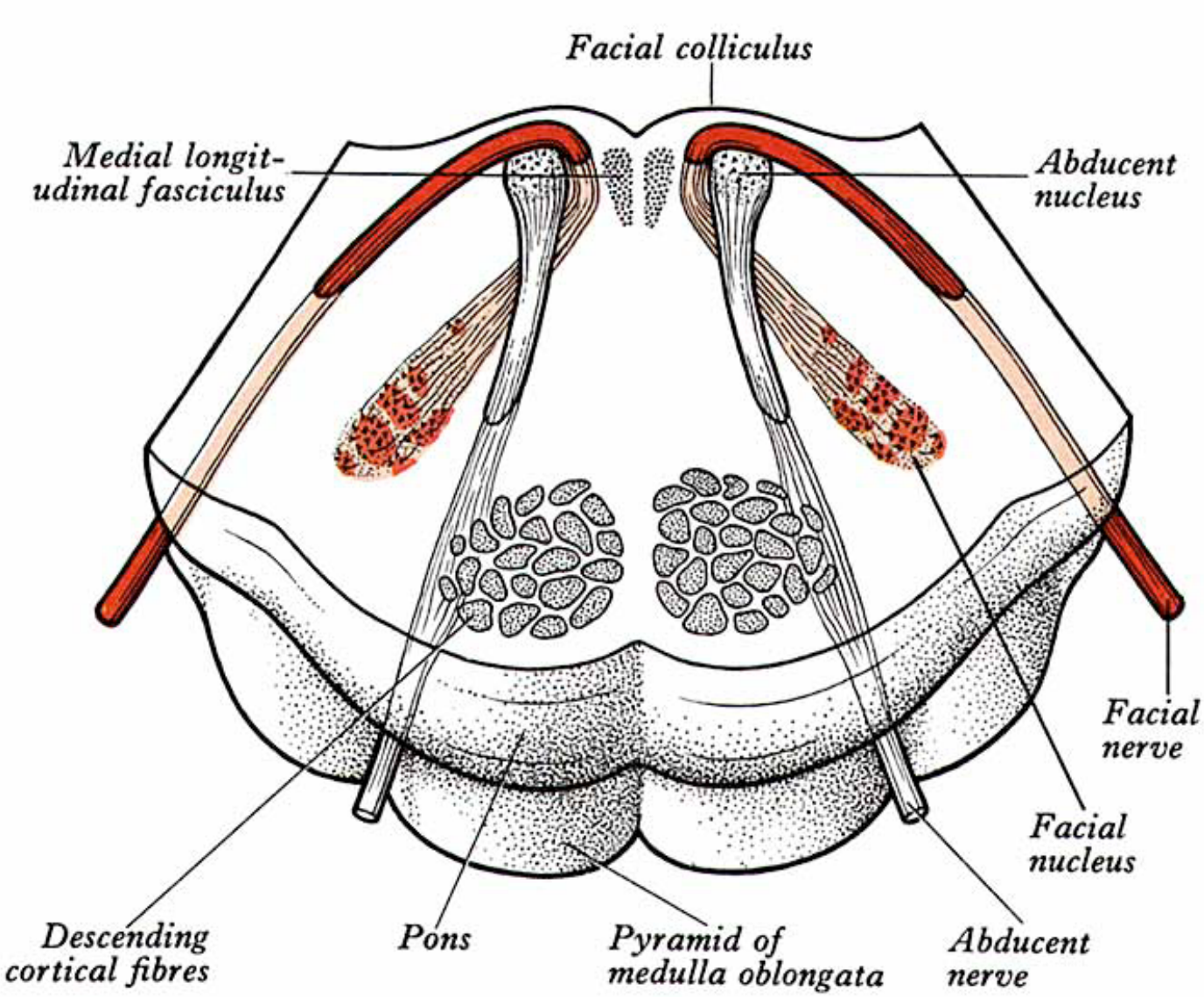

VESTIBULAR NUCLEI
TECTO-SPINAL
INF. CER. PEDUNCLE
ABDUCENT N.
MIDDLE CER. P.
RETICULAR FORM.
MLF
SPINAL N. V
SPINAL TR. V
FACIAL N.
CTT
RUBROSPINAL
SUP. OLI-VARY N.
LAT. LEMN.
SPINOTHALAMIC
ANT. SPINOCEREBELLAR
MED. LEMNISCUS
TRAPEZOID BODY
PONTINE NUCLEI
CORTICOSPINAL/BULBAR

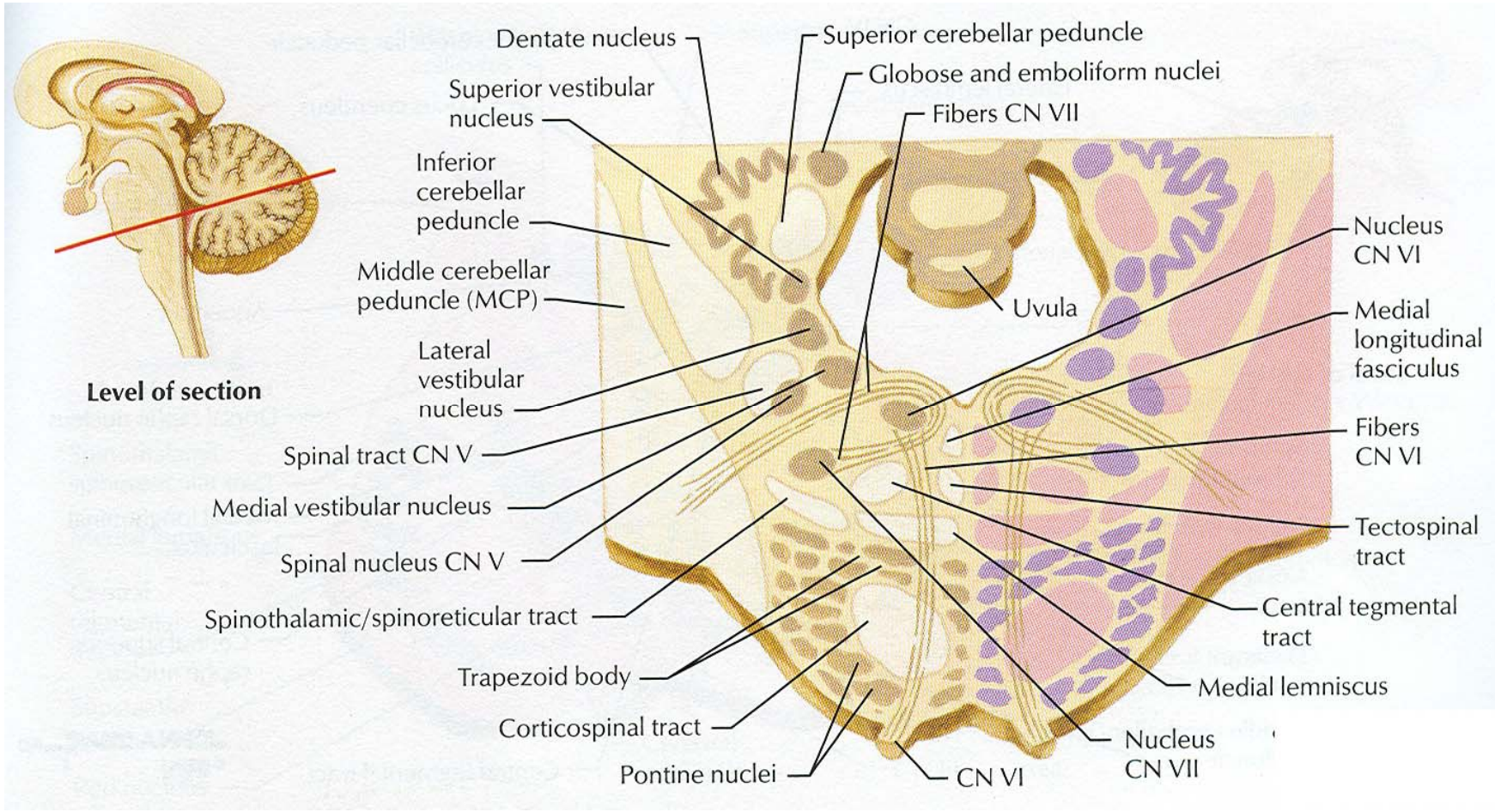

Fourth ventricle
Geniculum of facial nerve
Abducent nucleus
Trigeminal spinal nucleus and tract
Vestibulo-cerebellar fibres
Fascial nerve
Central tegmental fasciculus
Middle cerebellar peduncle
Facial nucleus
Medial longitudinal fasciculus
Trapezoid nucleus
Vestibular nerve
Trapezoid body and medial lemniscus
Abducent nerve
Descending tracts (corticospinal, etc.)
Transverse fibres of pons
Nuclei pontis

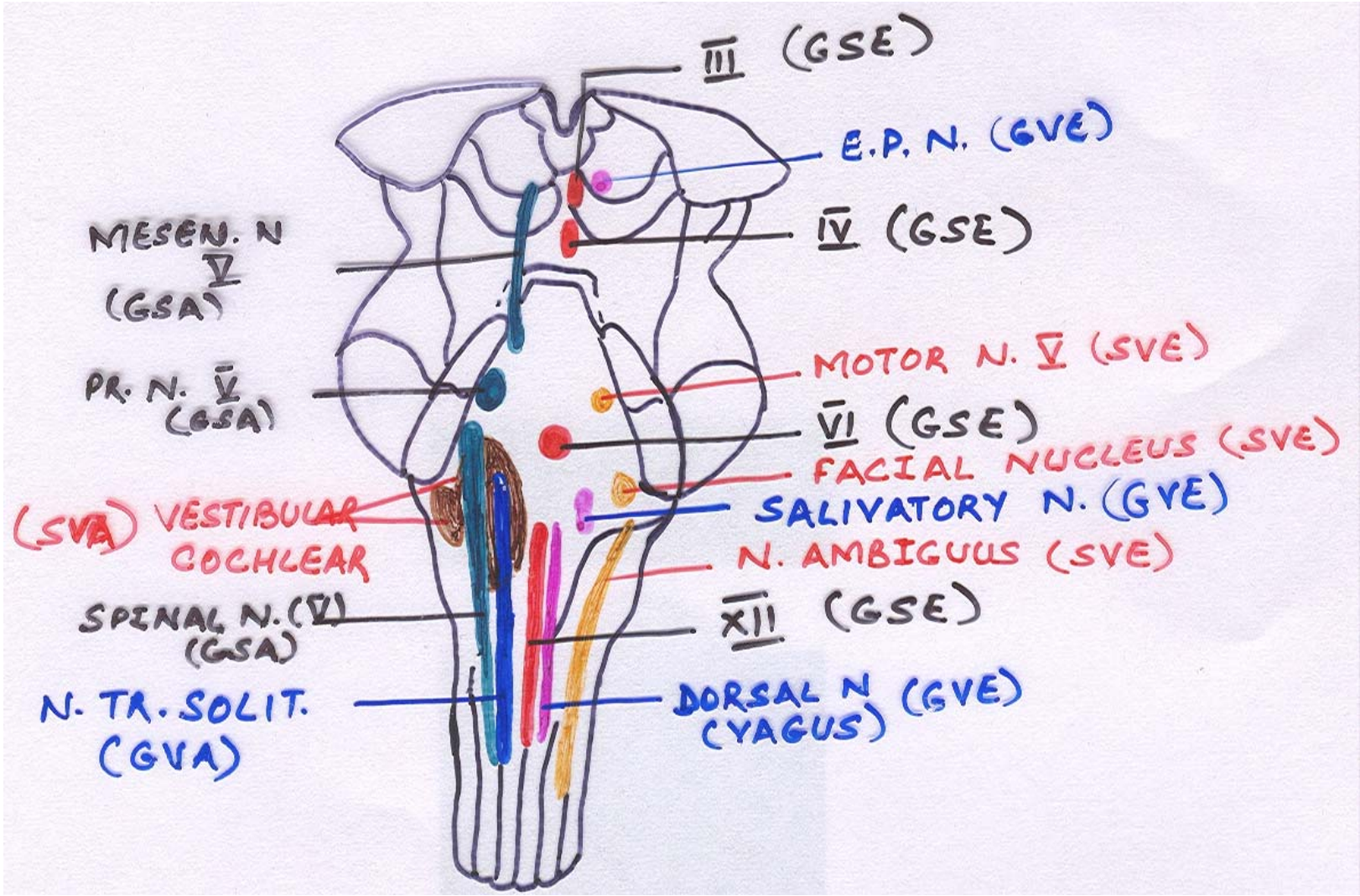

Superior medullary velum
Oral pontine reticular formation
Medial longitudinal fasciculus
Anterior spinocerebellar tract
Superior cerebellar peduncle
Central tegmental tract
Mesencephalic tract of V
Motor nucleus V
Superior sensory nucleus of V
Lateral lemniscus
Middle cerebellar peduncle
Reticulotegmental nucleus
Medial lemniscus
Trigeminal nerve root
Corticospinal tract
Pontine nuclei
Trapezoid body and nuclei

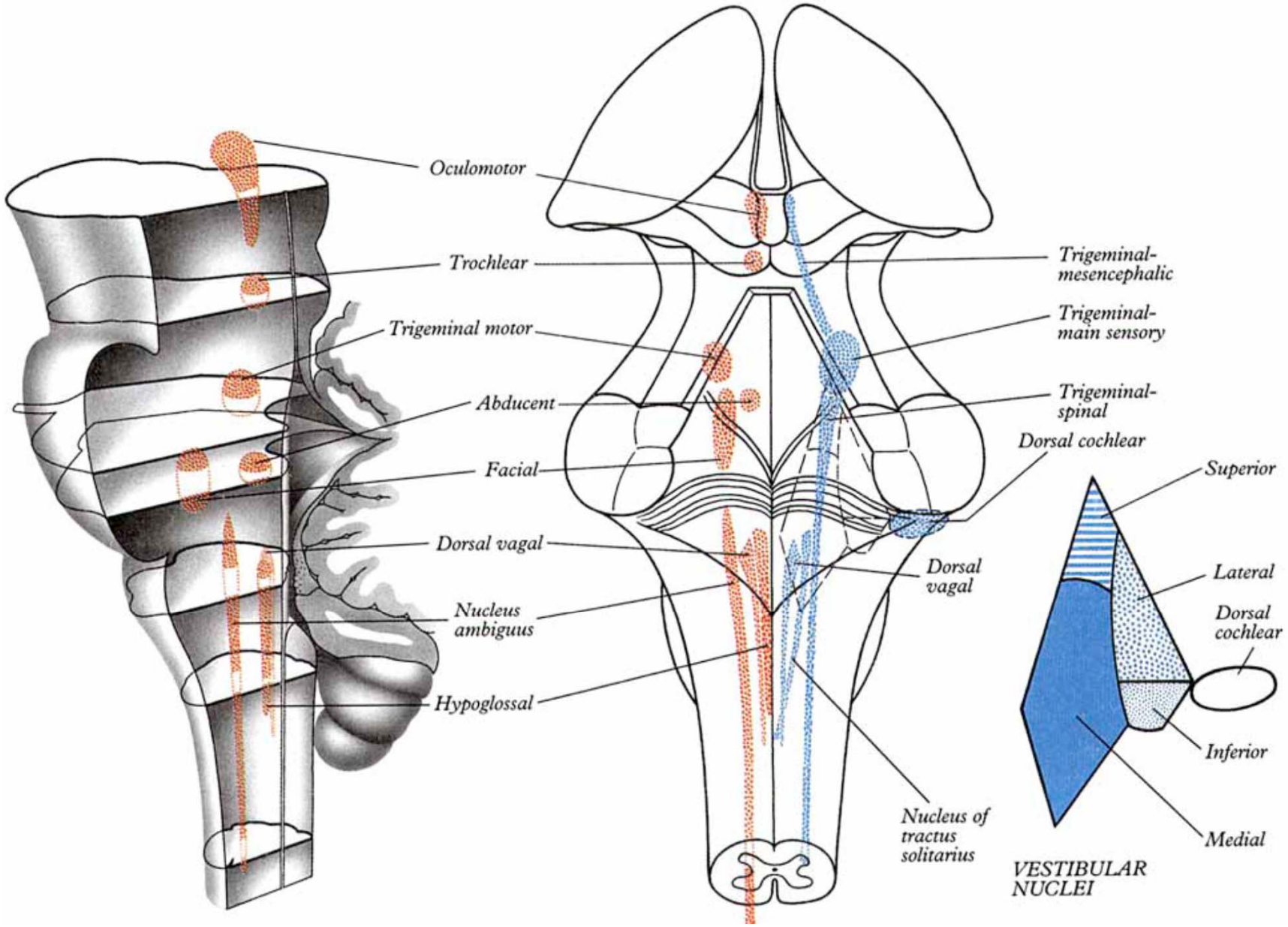

Cerebral cortex (temporal)
Medial geniculate body
Brachium of infer. colliculus
Infer. colliculus
C
Lateral lemniscus
Nucleus of lateral lemniscus
B
Medial lemniscus
Lateral lemniscus
Nucleus VI
Dorsal cochlear nucleus
A
Restiform body
Ventr. cochlear nucleus
Cochlear nerve
Spiral gangl.
Super. olivary nucleus
Trapezoid body
Pyramid
Nucleus of trapezoid body

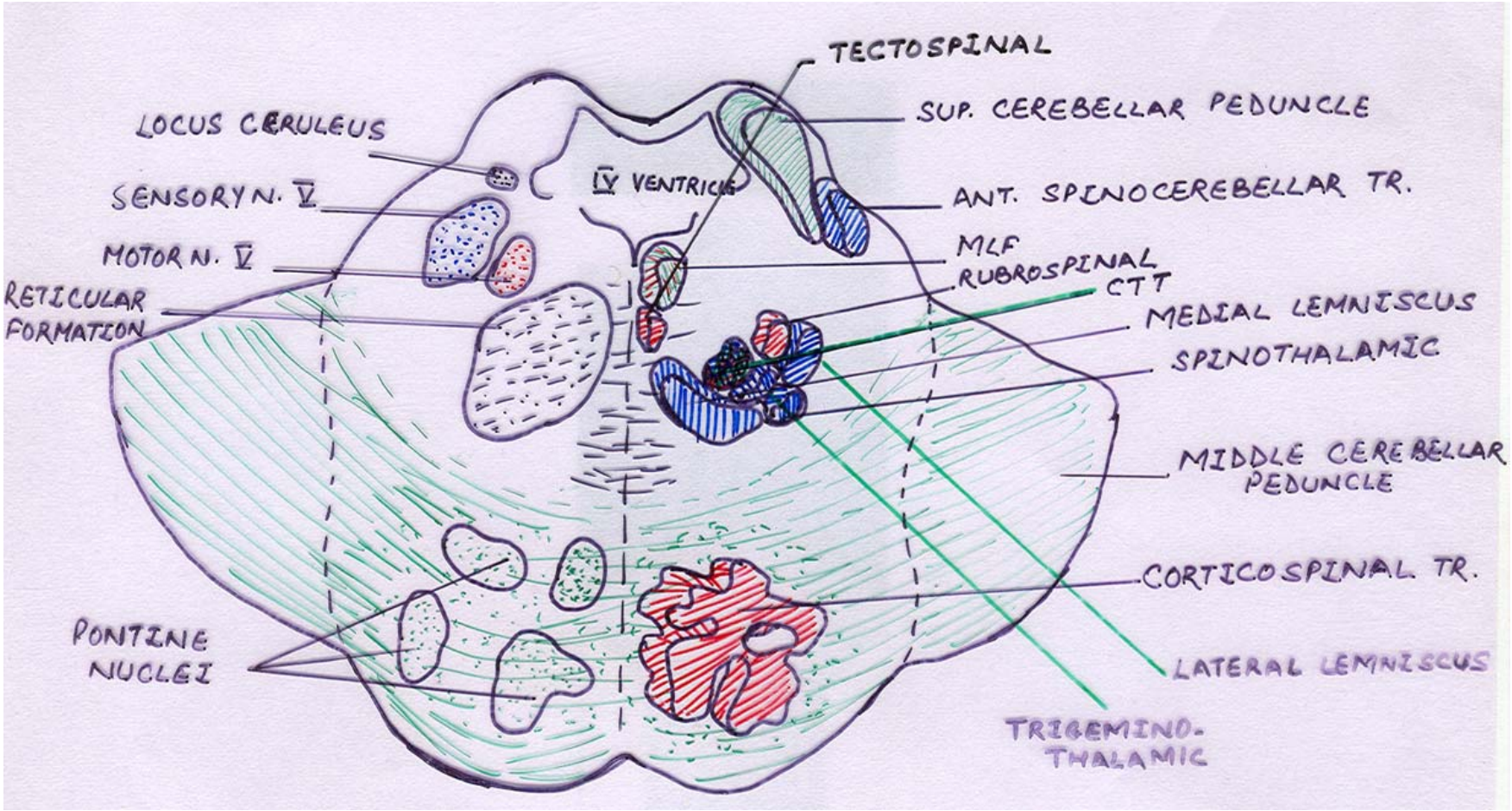

Medial longitudinal fasciculus
Lateral lemniscus
Dorsal cochlear nucleus
Inferior cerebellar peduncle
Ventral cochlear nucleus
ML
SON
Superior olivary nucleus
Inhibitory neuron in trapezoid body
Cochlear nerve
Corticospinal tract

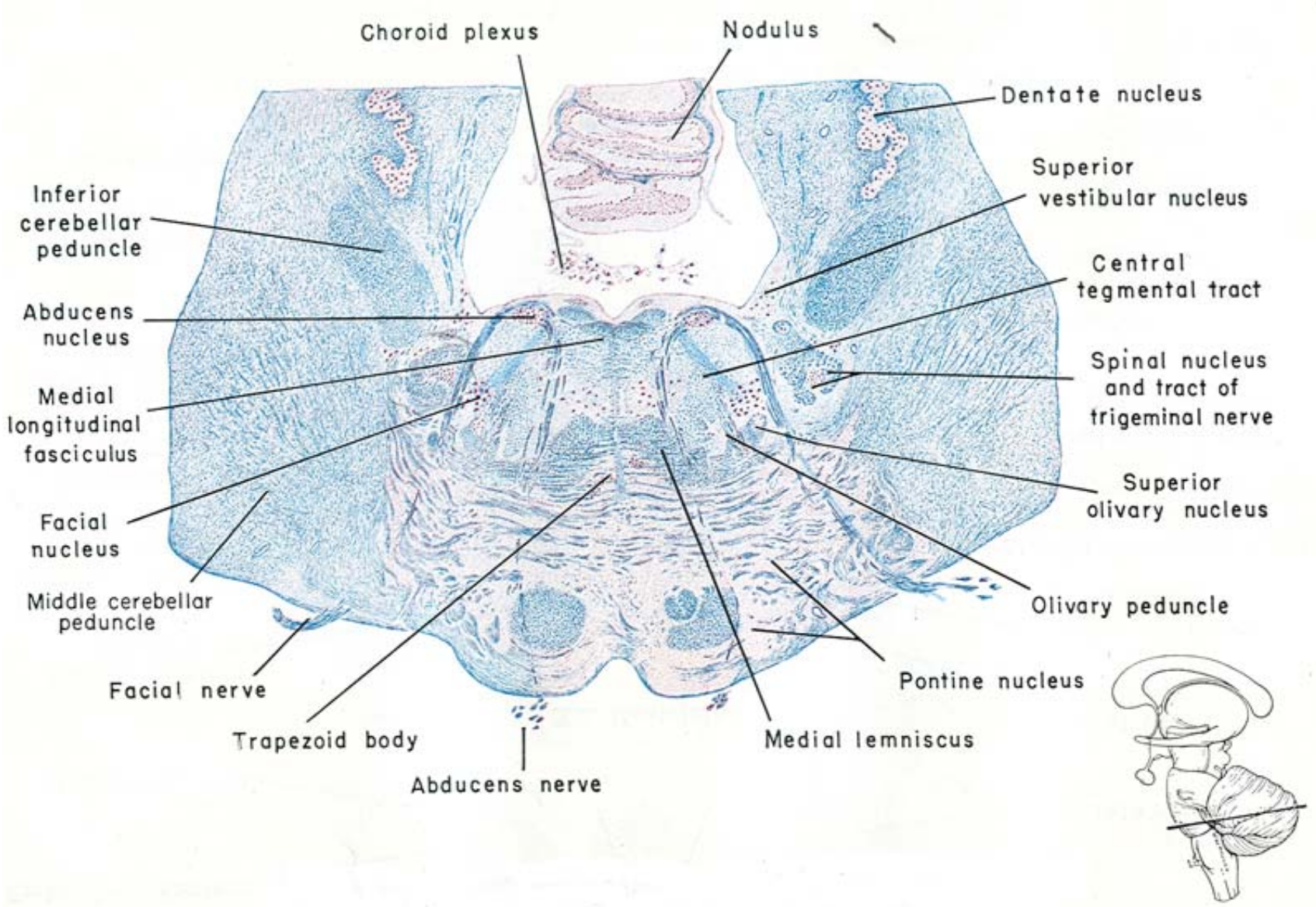

Facial colliculus
Medial longit-
udinal fasciculus
Abducent
nucleus
Facial
nerve
Facial
nucleus
Descending
cortical fibres
Pons
Pyramid of
medulla oblongata
Abducent
nerve

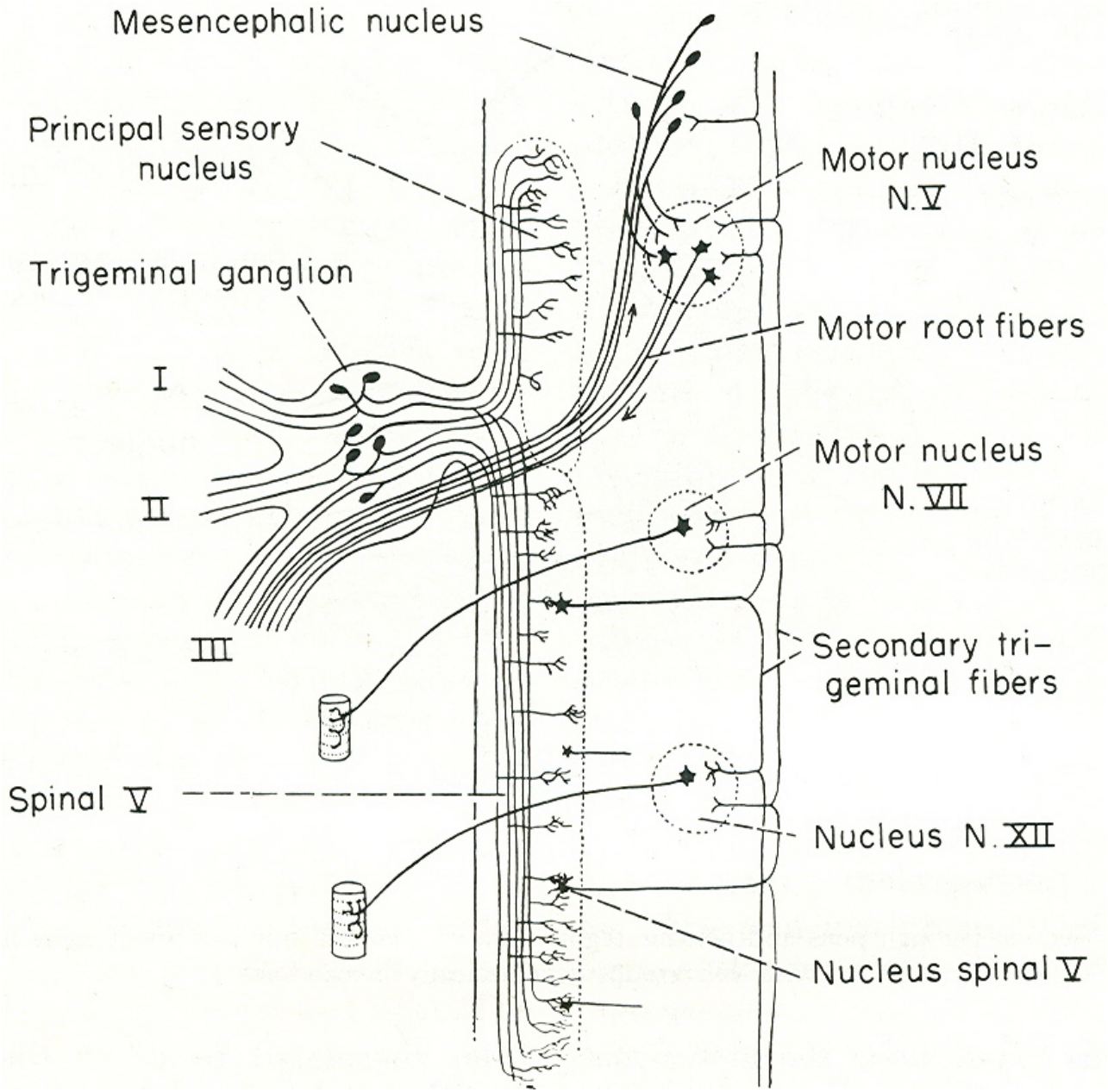

Level of section
Dentate nucleus
Superior cerebellar peduncle
Globose and emboliform nuclei
Superior vestibular nucleus
Fibers CN VII
Inferior cerebellar peduncle
Middle cerebellar peduncle (MCP)
Lateral vestibular nucleus
Spinal tract CN V
Medial vestibular nucleus
Spinal nucleus CN V
Spinothalamic/spinoreticular tract
Trapezoid body
Corticospinal tract
Pontine nuclei
CN VI
Uvula
Nucleus CN VI
Medial longitudinal fasciculus
Fibers CN VI
Tectospinal tract
Central tegmental tract
Medial lemniscus
Nucleus CN VII

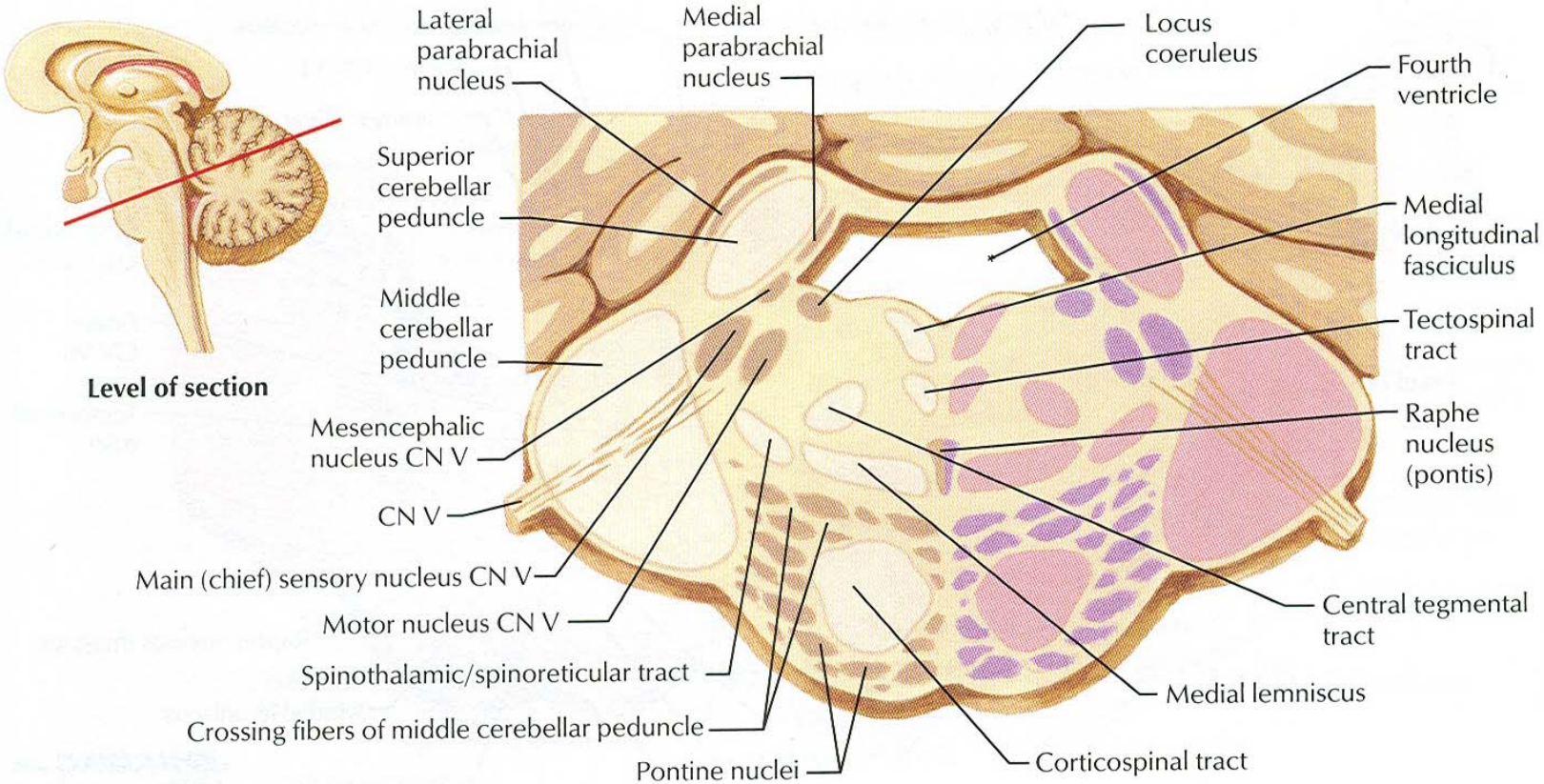

III (GSE)
E.P. N. (GVE)
IV (GSE)
MESEN. N V (GSA)
PR. N. V (GSA)
MOTOR N. V (SVE)
VI (GSE)
FACIAL NUCLEUS (SVE)
SALIVATORY N. (GVE)
(SVA) VESTIBULAR COCHLEAR
N. AMBIGUUS (SVE)
SPINAL N. (V) (GSA)
XII (GSE)
N. TR. SOLIT. (GVA)
DORSAL N (GVE) (VAGUS)

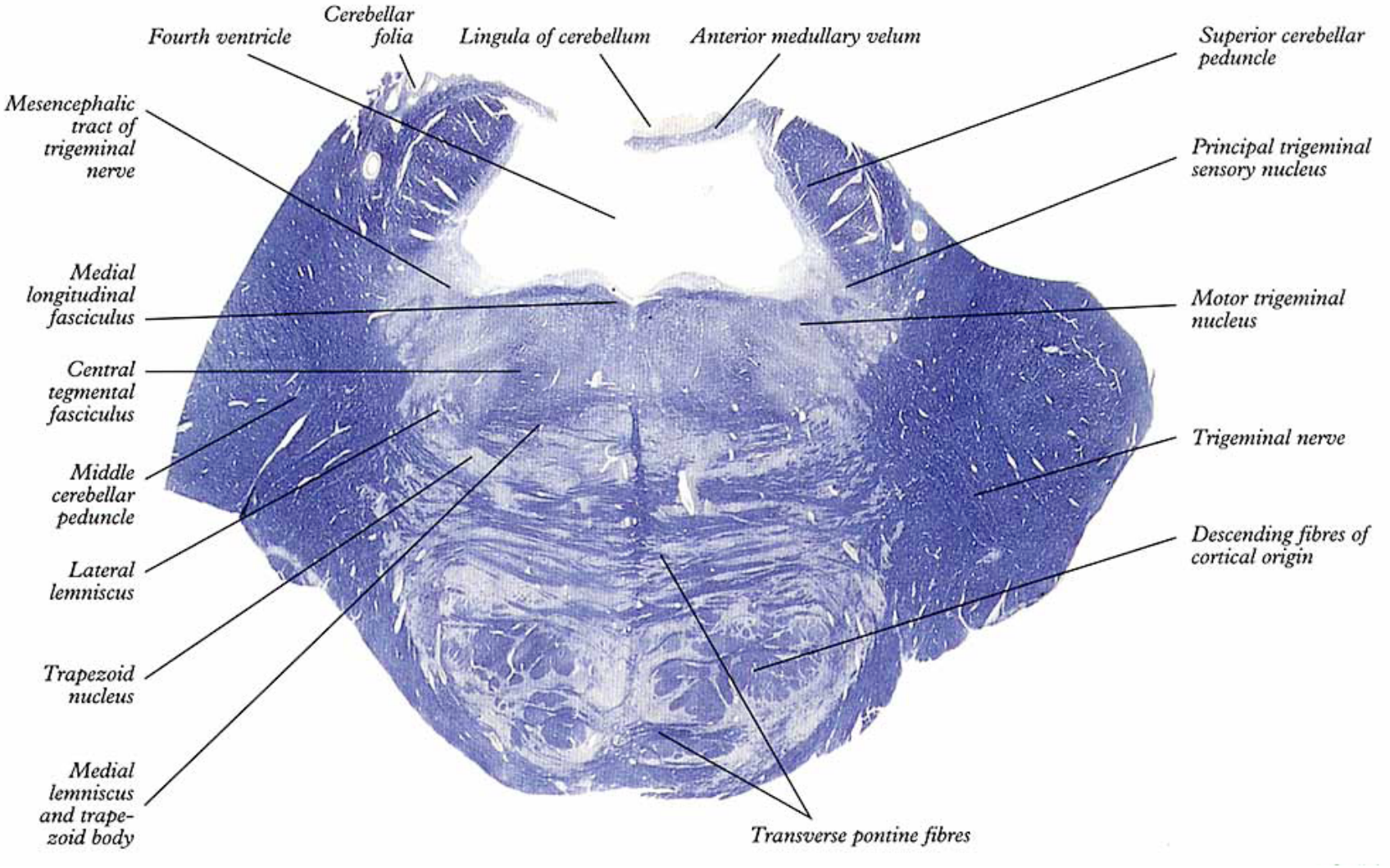

Oculomotor
Trochlear
Trigeminal motor
Abducent
Facial
Dorsal vagal
Nucleus ambiguus
Hypoglossal
Trigeminal-mesencephalic
Trigeminal-main sensory
Trigeminal-spinal
Dorsal cochlear
Dorsal vagal
Nucleus of tractus solitarius
Superior
Lateral
Dorsal cochlear
Inferior
Medial
VESTIBULAR NUCLEI

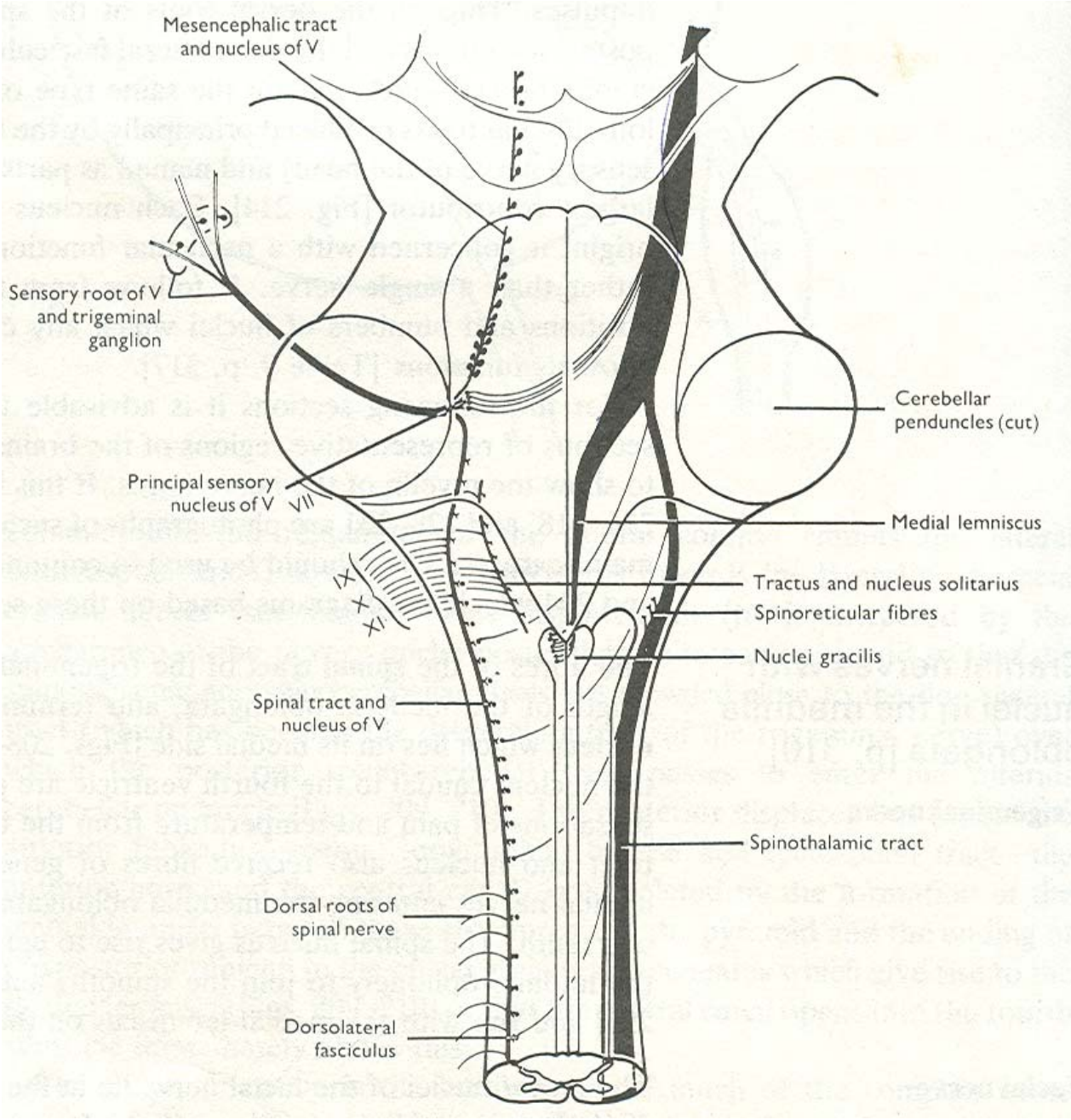

TECTOSPINAL
SUP. CEREBELLAR PEDUNCLE
LOCUS CERULEUS
SENSORY N. V
IV VENTRICLE
ANT. SPINOCEREBELLAR TR.
MOTOR N. V
MLF
RUBROSPINAL
CTT
RETICULAR FORMATION
MEDIAL LEMNISCUS
SPINOTHALAMIC
MIDDLE CEREBELLAR PEDUNCLE
CORTICOSPINAL TR.
PONTINE NUCLEI
LATERAL LEMNISCUS
TRIGEMINO-THALAMIC

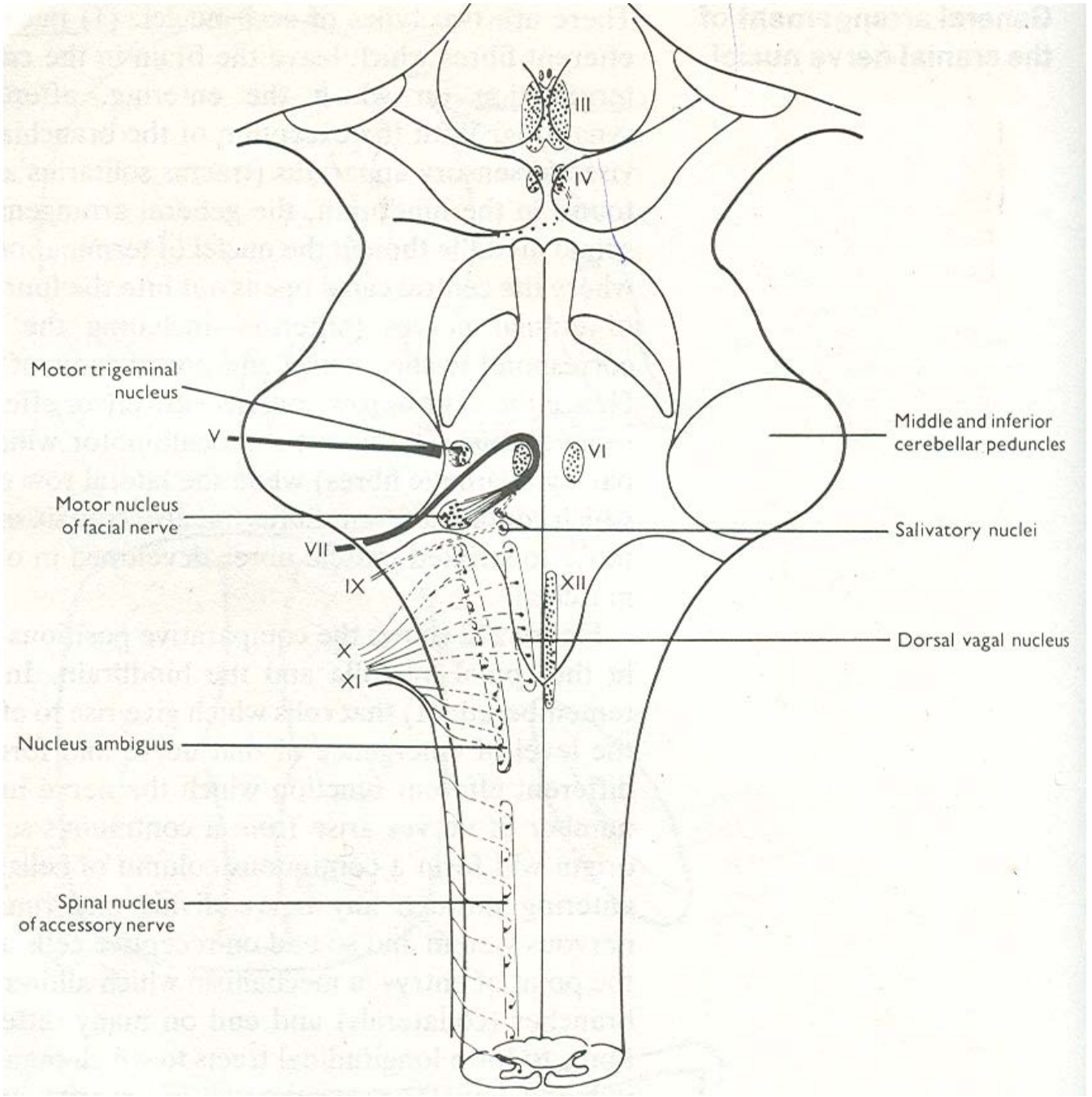

Choroid plexus
Nodulus
Dentate nucleus
Superior vestibular nucleus
Inferior cerebellar peduncle
Central tegmental tract
Abducens nucleus
Spinal nucleus and tract of trigeminal nerve
Medial longitudinal fasciculus
Superior olivary nucleus
Facial nucleus
Olivary peduncle
Middle cerebellar peduncle
Pontine nucleus
Facial nerve
Trapezoid body
Medial lemniscus
Abducens nerve

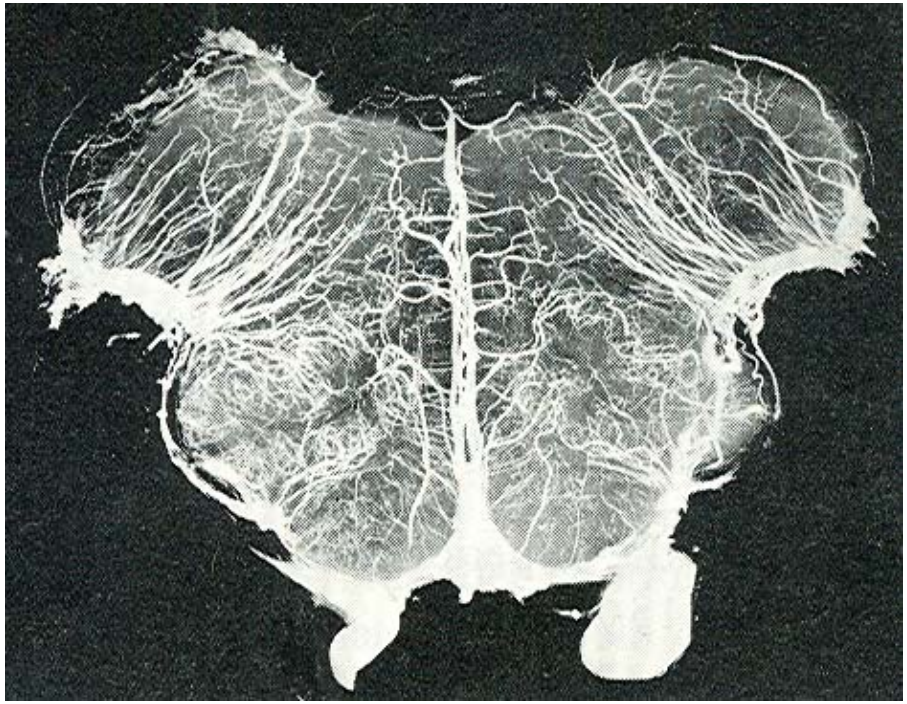

Mesencephalic nucleus
Principal sensory nucleus
Trigeminal ganglion
I
II
III
Spinal V
Motor nucleus N.V
Motor root fibers
Motor nucleus N.VII
Secondary trigeminal fibers
Nucleus N.XII
Nucleus spinal V

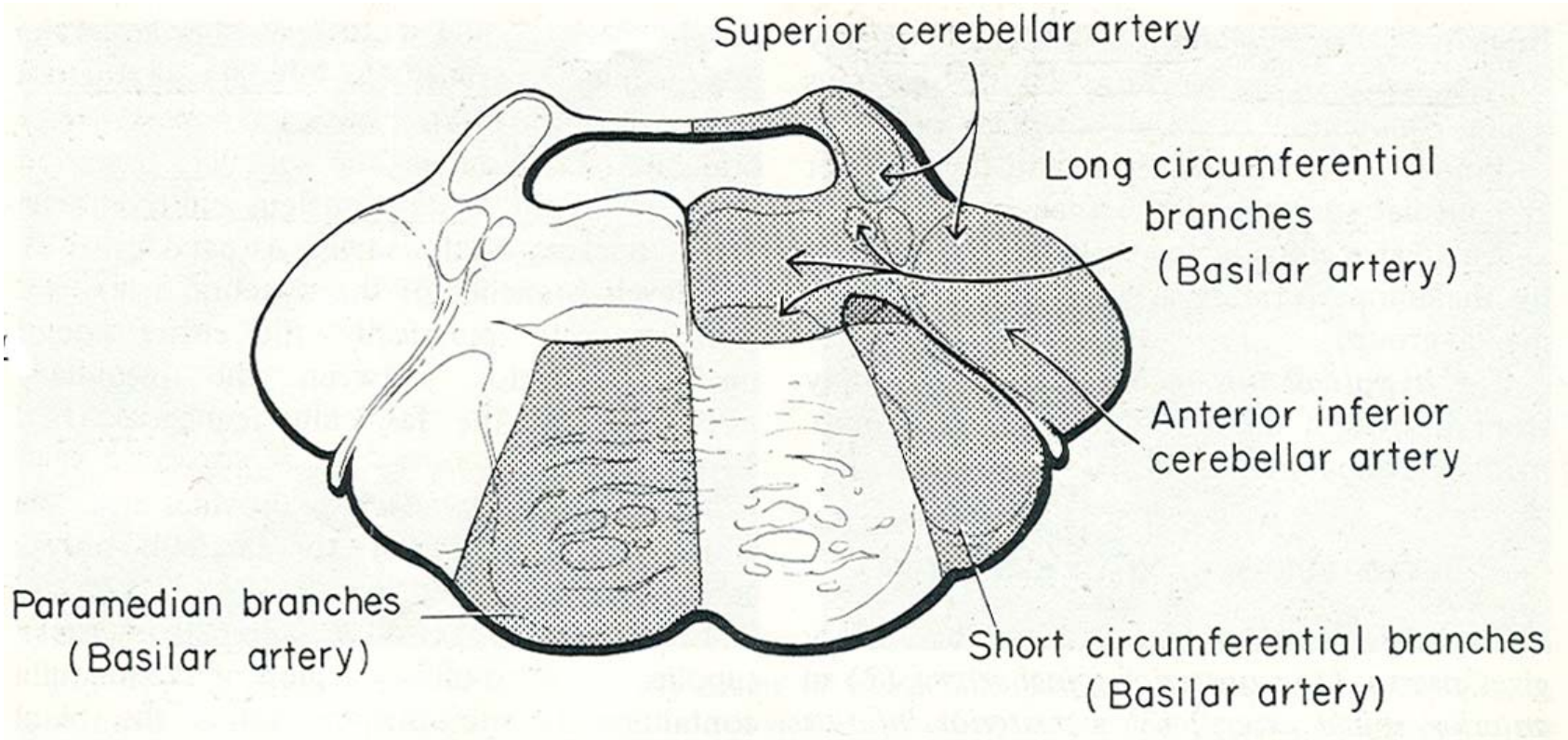

Level of section
Lateral parabrachial nucleus
Medial parabrachial nucleus
Locus coeruleus
Fourth ventricle
Superior cerebellar peduncle
Medial longitudinal fasciculus
Middle cerebellar peduncle
Tectospinal tract
Mesencephalic nucleus CN V
Raphe nucleus (pontis)
CN V
Main (chief) sensory nucleus CN V
Motor nucleus CN V
Central tegmental tract
Spinothalamic/spinoreticular tract
Medial lemniscus
Crossing fibers of middle cerebellar peduncle
Pontine nuclei
Corticospinal tract

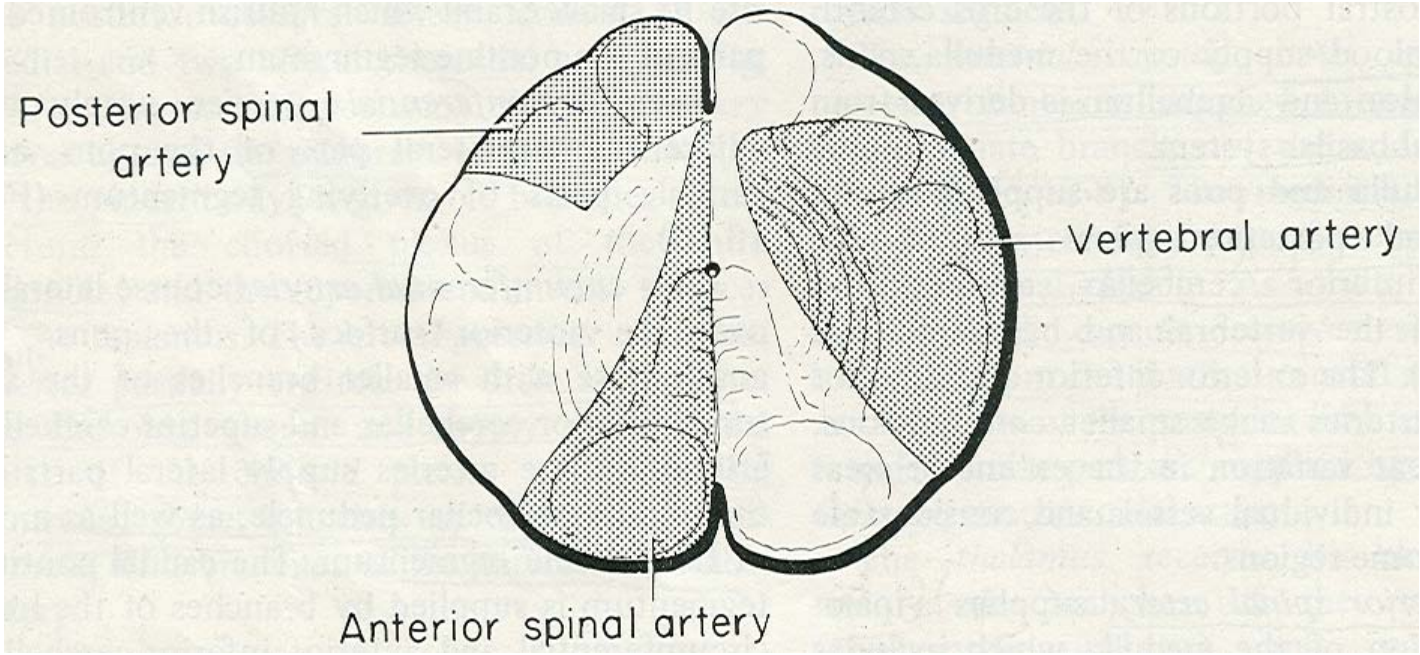

Fourth ventricle
Cerebellar folia
Lingula of cerebellum
Anterior medullary velum
Superior cerebellar peduncle
Mesencephalic tract of trigeminal nerve
Principal trigeminal sensory nucleus
Medial longitudinal fasciculus
Motor trigeminal nucleus
Central tegmental fasciculus
Trigeminal nerve
Middle cerebellar peduncle
Descending fibres of cortical origin
Lateral lemniscus
Trapezoid nucleus
Medial lemniscus and trapezoid body
Transverse pontine fibres


Mesencephalic tract and nucleus of V
Sensory root of V and trigeminal ganglion
Principal sensory nucleus of V
VII
IX
X
XI
Spinal tract and nucleus of V
Dorsal roots of spinal nerve
Dorsolateral fasciculus
Cerebellar penduncles (cut)
Medial lemniscus
Tractus and nucleus solitarius
Spinoreticular fibres
Nuclei gracilis
Spinothalamic tract


III
IV
Motor trigeminal nucleus
V
VI
Middle and inferior cerebellar peduncles
Motor nucleus of facial nerve
Salivatory nuclei
VII
IX
XII
X
Dorsal vagal nucleus
XI
Nucleus ambiguus
Spinal nucleus of accessory nerve




Superior cerebellar artery
Long circumferential branches (Basilar artery)
Anterior inferior cerebellar artery
Paramedian branches (Basilar artery)
Short circumferential branches (Basilar artery)


Posterior spinal artery
Vertebral artery
Anterior spinal artery

Applied Anatomy

Millard-Gubler Syndrome

Lesions in the lower pons which include pyramidal tract, fibers of VI & VII nerve
Ipsilateral medial squint
Ipsilateral facial palsy
Contralateral hemiplegia

Pontocerebellar angle syndrome

Tinnitus, progressive deafness, vertigo
Ipsilateral ataxia & staggering gait
Ipsilateral facial palsy
Ipsilateral loss of pain & temperature, loss of corneal reflex

Pontine haemorrhage

Hyperpyrexia, Deep coma
Bilateral paralysis of face & limbs