

Downe's Score And Its Interpretation

RDS Score	0	1	2
Cyanosis	None	Cyanotic in air	Cyanotic in 40% O ₂
Retractions	None	Mild	Severe
Grunting	None	Audible with stethoscope	Audible without a stethoscope
Air entry - make baby cry and listen to breath sounds while baby cries	Clear	Delayed or decreased	Barely audible
Respiratory rate	60	60 to 80	80 or apneic episodes

☐ An RD score of 4 or more for at least 2 hours during the first 8 hours of life denotes clinical RD and requires assessment of the infant by a physician.
☐ An RD score of 6 or more is an indication for ventilatory assistance.



VIDEO 6



ROOS TEST

Roos Test is diagnostic tool for Thoracic Outlet Syndrome (TOS). It is also known as the EAST (Elevated Arm Stress Test). In seated position, patient abducts the bilateral shoulders to 90° with the elbow flexed 90°. Patient opens and closes the hands for 3 minutes



VIDEO 7



GOWER'S SIGN

Gowers' sign is pathognomonic in patients with Duchenne muscular dystrophy. These patients, when rising, 'climb up' their thighs using

their hands in order to overcome the weakness of the pelvic girdle and paravertebral muscles. Gowers' sign is a screening test for muscle weakness, typically seen in Duchenne muscular dystrophy but also seen in numerous other conditions



VIDEO 8



LAPAROSCOPIC FALOPE RING APPLICATOR

The silastic ring is an inert, radio opaque silicone band that is simply applied to a looped section of the fallopian tube with the Silastic Ring Applicator. The Silastic Ring Applicator contains forceps to grasp the fallopian tube 3 to 4 cm from the cornual area. The fallopian tube is gently drawn into the inner cylinder of the instrument, forming a knuckle. The Silastic Ring located on the inner cylinder is released onto the knuckle, occluding the base. This procedure is repeated on the second fallopian tube. Once in place, the Silastic Ring will not slip.

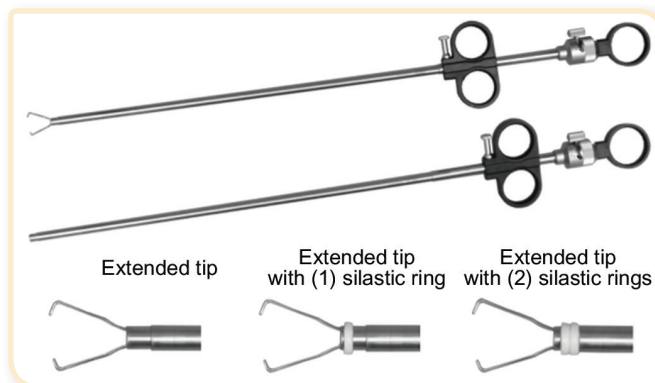
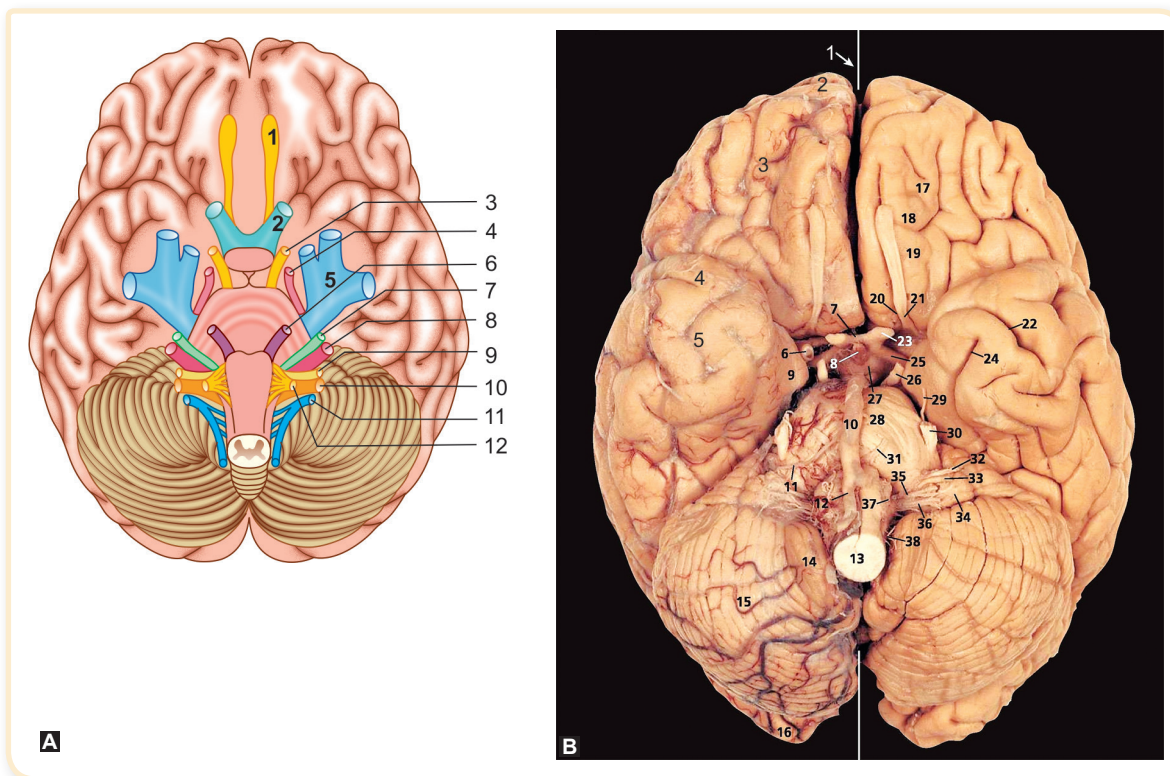


Fig: Fallope ring applicators with extended tip



ANATOMY PLATE 5



INFERIOR SURFACE OF BRAIN

A. Legends

1. Olfactory nerve	7. Facial nerve
2. Optic nerve	8. Vestibulocochlear nerve
3. Oculomotor nerve	9. Glossopharyngeal nerve
4. Trochlear nerve	10. Vagus nerve
5. Trigeminal nerve	11. Accessory spinal nerve
6. Abducens nerve	12. Hypoglossal nerve

B. Legends

1. Longitudinal cerebral fissure (arrowed)	14. Tonsil of cerebellum	27. Mammillary body
2. Frontal pole	15. Cerebellar hemisphere	28. Pons
3. Inferior surface of frontal pole	16. Occipital pole	29. Trochlear nerve (IV)
4. Temporal pole	17. Orbital gyri	30. Trigeminal nerve (V)
5. Inferior surface of temporal pole	18. Olfactory bulb	31. Abducent nerve (VI)
6. Internal carotid artery	19. Olfactory tract (I)	32. Facial nerve (VII)
7. Optic chiasma	20. Medial olfactory stria	33. Vestibulocochlear nerve (VIII)
8. Infundibulum	21. Lateral olfactory stria	34. Flocculus
9. Parahippocampal gyrus	22. Inferior temporal sulcus	35. Glossopharyngeal nerve (IX)
10. Basilar artery	23. Optic nerve (II)	36. Vagus nerve (X)
11. Labyrinthine artery	24. Collateral sulcus	37. Hypoglossal nerve (XII)
12. Right vertebral artery	25. Optic tract	38. Accessory nerve (XI)
13. Medulla oblongata	26. Oculomotor nerve (III)	



STRUCTURE OF BRAINSTEM

A. Ventral View of Brainstem and Basal Forebrain

1. Cerebral peduncle
2. Interpeduncular fossa
3. Mammillary body
4. Oculomotor nerve
5. Trigeminal nerve
6. Optic tract
7. Pons
8. Olive
9. Trochlear nerve^{AIIMSPG, NEETPG}
10. Medullary Pyramids^{AIIMSPG} (Contains Corticospinal tract, damage to which causes contralateral hemiplegia)

B. Brain stem dissected

1. Pineal gland

2. Superior Colliculus
3. Inferior Colliculus
4. Trochlear nerve^{AIIMSPG, NEETPG}
5. Superior cerebellar peduncle
6. Dorsal median sulcus
7. Inferior cerebellar peduncle
8. Middle cerebellar peduncle
9. Medial eminence
10. Facial colliculus
11. Striae medullares
12. Hypoglossal trigone
13. Vagal trigone
14. Cuneate tubercle
15. Fasciculus cuneatus
16. Gracilis tubercle
17. Fasciculus gracilis

C. Brain stem illustration: Self explanatory labeling on structures

D. Brain Stem illustrations: With emphasis of different nucleus

Structures of Brain Stem		
	Ventral surface	Dorsal surface
Midbrain	Cerebral peduncle Interpeduncular fossa Oculomotor nerve CN3 Posterior perforated substance created by posterior cerebral and posterior communicating arteries	Superior colliculus (Visual system) Inferior colliculus (Auditory system) Trochlear nerve CN 4 (Only cranial nerve that exits from dorsal aspect) ^{AIIMSPG, NEETPG}
Pons	Trigeminal nerve CN5 Abducens nerve CN 6 Facial nerve CN 7 Vestibulocochlear nerve CN 8 Ventral cochlear nuclei Facial nucleus	Motor & sensory nucleus of trigeminal Vestibular nuclei Dorsal cochlear nuclei Superficially pontine portion of Rhomboid fossa containing Locus ceruleus (Largest collection of norepinephrine neurons in CNS) Sulcus limitans Stria medullaris Facial colliculus (contains <i>Abducent nucleus</i> and internal genu of facial nerve)
Medulla	Pyramid (Corticospinal tract) ^{AIIMSPG} (Causes contralateral hemiplegia) Olive (superior & inferior olivary nucleus) Glossopharyngeal nerve CN 9 Vagus nerve CN 10 Accessory nerve CN 11 Hypoglossal nerve CN 12	Nucleus gracilis Nucleus cuneatus Medullary Rhomboid fossa containing Stria medullaris Dorsal motor nucleus of vagus CN10 (Vagal trigone) Hypoglossal nucleus CN12 (Hypoglossal trigone) Sulcus limitans Area postrema (Vomiting centre)

Note: Stria medullaris divides rhomboid fossa into pontine and medullary parts

Cerebellar Peduncles		
Superior cerebellar peduncle	Middle cerebellar peduncle	Inferior cerebellar peduncle
Cerebellum ↔ midbrain	Cerebellum ↔ pons	Cerebellum ↔ medulla
Fibers that enter cerebellum via superior cerebellar peduncle: 1. Ventral spinocerebellar tract 2. Dentate rubro thalamic tract 3. Trigemino-cerebellar tract from the mesencephalic trigeminal nucleus 4. Cerebello-cerebellar tract from the nucleus ceruleus 5. Tectocerebellar tract from the superior and inferior colliculi	The fiber systems that enter cerebellum via middle cerebellar peduncle: 1. Pontocerebellar (corticopontocerebellar) tract from the pontine nuclei 2. Serotonergic fibers from the raphe nuclei	Fiber systems that enter cerebellum via inferior cerebellar peduncle: 1. Dorsal spinocerebellar tract 2. Cuneocerebellar tract from the accessory cuneate nuclei 3. Olivocerebellar tract from the inferior olivary nuclei 4. Reticulocerebellar tract from the reticular nuclei of the brain stem 5. Vestibulocerebellar tract (primary afferents from the vestibular end organ and secondary afferents from the vestibular nuclei) 6. Arcuatocerebellar tract from the arcuate nuclei of the medulla 7. Trigemino-cerebellar tract from the spinal and main sensory nuclei of the trigeminal nerve

Muscles of Larynx				
Muscle	Origin	Insertion	Innervation	Main action (s)
Cricothyroid	Anterolateral part of cricoid cartilage	Inferior margin and inferior horn of thyroid cartilage	External branch of superior laryngeal nerve (CN X)	Tenses vocal fold
Posterior cricoarytenoid	Posterior surface of laminae of cricoid cartilage	Muscular process of arytenoid cartilage	Recurrent laryngeal nerve (CN X)	Abducts vocal fold
Lateral cricoarytenoid	Arch of cricoid cartilage			Adducts vocal fold
Thyroarytenoids^a	Posterior surface of thyroid cartilage			Relaxes vocal fold
Transverse and oblique arytenoids^b	One arytenoid cartilage	Opposite arytenoid cartilage		Close inlet of larynx by approximating arytenoid cartilages
Vocalis^c	Angle between laminae of thyroid cartilage	Vocal ligament, between origin and vocal process of arytenoid cartilage		Alters vocal fold during phonation

^aSuperior fibers of the thyroarytenoid muscle pass into the aryepiglottic fold, and some of them reach the epiglottic cartilage. These fibers constitute the **thyroepiglottic muscle**, which widens the inlet of the larynx.

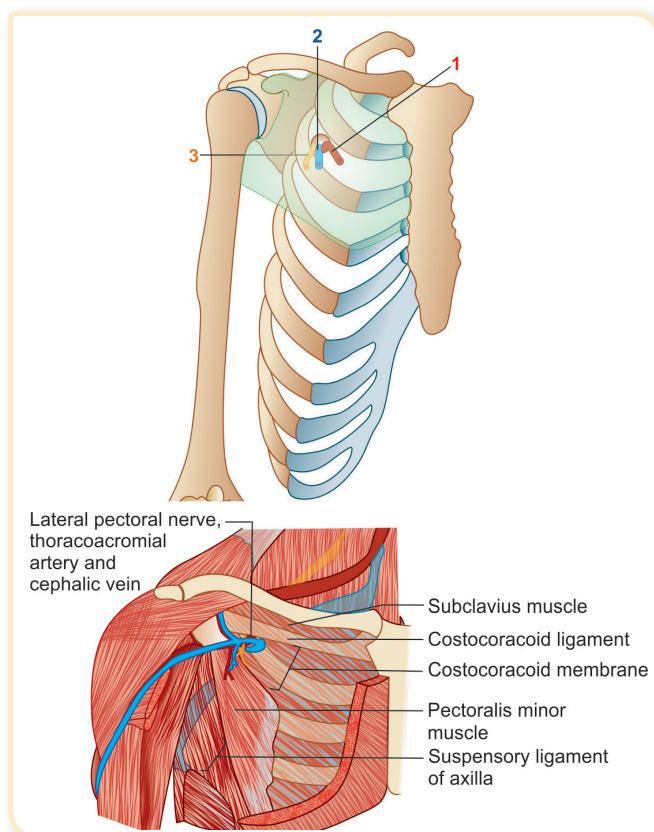
^bSome fibers of the oblique arytenoid muscle continue as the aryepiglottic muscle.

^cThis slender muscular slip is derived from inferior **deeper fibers of the thyroarytenoid muscle**.

Muscles of Larynx FAQ	
Intrinsic muscles acting on laryngeal inlet	
Openers of laryngeal inlet	Thyroepiglottic (part of thyroarytenoid)
Closers of laryngeal inlet	Interarytenoid (oblique part), Aryepiglottic (posterior oblique part of interarytenoids)
Intrinsic muscles acting on vocal cords	
Abductors	Posterior cricoarytenoid
Adductors	Lateral cricoarytenoid, Interarytenoid (transverse arytenoid) Thyroarytenoid (external part)
Tensors	Cricothyroid, Vocalis (internal part of thyroarytenoid)



ANATOMY PLATE 16



CLAVIPECTORAL FASCIA (SHADED)^{AIIMSPG}

1. Thoracoacromial artery
2. Cephalic vein draining in axillary vein
3. Lateral pectoral nerve

Clavipectoral Fascia

- Extent: From clavicle above to axillary fascia below.
- Upper part splits to enclose subclavius muscle while lower part splits to enclose pectoralis minor muscle.
- It helps to pull up axillary fascia.
- Upper thickened part is called the costocoracoid ligament.

Clavipectoral fascia is a fibrous sheet situated deep to the clavicular portion of the pectoralis major muscle. It extends from the clavicle above to the axillary fascia below. **Its upper part splits to enclose the subclavius muscle.** The posterior lamina is fused to the investing layer of the deep cervical fascia and to the axillary sheath. Inferiorly, the clavipectoral fascia splits to enclose the pectoralis minor muscle. Below this muscle it continues as the suspensory ligament, which is attached to the dome of the axillary fascia, and helps to keep it pulled up.

The clavipectoral fascia is pierced by the following structures:

1. Cephalic vein
2. Lateral pectoral nerve
3. Thoracoacromial vessels
4. Lymphatics passing from the breast and pectoral region to the apical group of axillary lymph nodes.