

Study Set – 10 Questions (memorization)

Q1. Lissauer's tract carries axons from:

- A. Anterior horn cells
- B. Posterior root ganglia**
- C. Clarke's nucleus
- D. Cuneate nucleus
- E. Betz cells

Lissauer's Tract :
 is a short associative tract
 Enter spinal cord by lateral
 division of posterior root ganglia
 few segments
 Rely on SGR

Q2. Which tract carries **pain and temperature** sensations?

- A. Ventral spinothalamic *crude touch*
- B. Lateral spinothalamic** *Pain + temperature + sexual sensation*
- C. Gracile] → *proprioceptive sensation + fine touch*
- D. Cuneate] → *proprioceptive sensation + fine touch*
- E. Dorsal spinocerebellar *coordination*

Q3. Fine touch and proprioception from **lower limbs** ascend via:

- A. Lateral spinothalamic
- B. Cuneate tract // // // *Upper limb (cervical + Upper 6th thoracic)*
- C. Gracile tract** // // // *Lower limb (Lower 6th thoracic + lumbar + sacral)*
- D. Ventral spinothalamic
- E. Spinotectal *Spinovisual reflexes*

Q4. The **cuneate tract** is present in:

- A. All spinal segments
- B. Cervical & upper thoracic segments**
- C. Thoracic & lumbar segments
- D. Only lumbar segments
- E. Only sacral segments

Q5. Which ascending tract is involved in **coordination, not conscious sensation**?

- A. Ventral spinothalamic
- B. Lateral spinothalamic
- C. Dorsal spinocerebellar**
- D. Gracile
- E. Cuneate

Q6. The **lateral corticospinal tract** fibers cross at:

- A. Internal capsule
- B. Pyramid of medulla (decussation)**
- C. Anterior horn of spinal cord
- D. Pons
- E. Midbrain

Q7. Upper motor neurons synapse with lower motor neurons in:

- A. Posterior root ganglia
- B. Clarke's nucleus
- C. Anterior horn of spinal cord
- D. Spinocerebellar tract
- E. Cuneate nucleus

Q8. Clark's nucleus is located in which spinal cord region?

- A. Cervical
- B. Upper thoracic (T1-T6)
- C. Lower thoracic (T1-L2)
- D. Lumbar
- E. Sacral

Clark's nucleus:
C8
T (1-12)
L1, L2, L3
(C8 → L3)

Q9. Which tract carries crude touch?

- A. Lateral spinothalamic
- B. Ventral spinothalamic
- C. Gracile
- D. Cuneate
- E. Rubrospinal

Q10. The posterior spinocerebellar tract is absent at which level?

- A. Cervical
- B. Upper thoracic
- C. Lower thoracic
- D. Lumbar
- E. Sacral

Exam Simulation Set – 10 Questions (application)

Q11. A patient has a lesion in the right lateral spinothalamic tract at T5. Which deficit occurs?

- A. Loss of pain & temperature **right side T5 and below**
- B. Loss of pain & temperature **left side T5 and below**
- C. Loss of proprioception **right lower limb**
- D. Loss of fine touch **left upper limb**
- E. Loss of coordination **right lower limb**

Lateral spinothalamic tract
is a long. ascending (sensory)
tract
decussation ✓

Q12. Fibers from gracile and cuneate nuclei cross as:

- A. Lateral corticospinal tract
- B. Internal arcuate fibers → medial lemniscus
- C. Ventral spinothalamic tract
- D. Dorsal spinocerebellar tract
- E. Spinotectal tract

Q13. Which of the following tracts is **uncrossed** and carries proprioception to the cerebellum?

- A. Ventral spinocerebellar *the only sensory tract that reach cerebellum + crossed*
- B. Dorsal spinocerebellar *if the choice were cuneocerebellar / Rostral spinocerebellar, also right ✓*
- C. Lateral spinothalamic

- D. Gracile
- E. Spinoolivary

Q14. The anterior corticospinal tract:

- A. Crosses at pyramidal decussation
- B. Descends in lateral column
- C. Descends in anterior column and crosses near termination
- D. Ends in Clarke's nucleus
- E. Synapses with cerebellum

Q15. A lesion in the lateral corticospinal tract produces:

- A. Lower motor neuron paralysis
- B. Loss of pain & temperature
- C. Upper motor neuron signs
- D. Loss of proprioception
- E. Spinovisual reflex deficit *Spinotectal tract*

Q16. Which extrapyramidal tract originates from the red nucleus?

- A. Rubrospinal
- B. Olivospinal
- C. Tectospinal
- D. Reticulospinal
- E. Vestibulospinal

Q17. The spinotectal tract terminates in:

- A. Cerebellum
- B. Thalamus
- C. Superior colliculus
- D. Clarke's nucleus
- E. Medial lemniscus

Q18. The lateral horn is present mainly in:

- A. Cervical
- B. ~~Upper~~ thoracic & upper lumbar (T1-L2/3)
- C. Lower thoracic
- D. Lumbar only
- E. Sacral

Q19. The cuneocerebellar tract carries proprioception from:

- A. Lower limbs
- B. Upper limbs & upper trunk
- C. Face
- D. Neck only
- E. Entire body

Q20. Which tract is absent in the lower thoracic region?

- A. Cuneate tract + *cuneate + direct pyramidal + (olivospinal + ventral vestibulospinal + tectospinal)*
- B. Anterior corticospinal tract
- C. Rubrospinal tract
- D. Dorsal spinocerebellar tract *Not found in Lumbar*

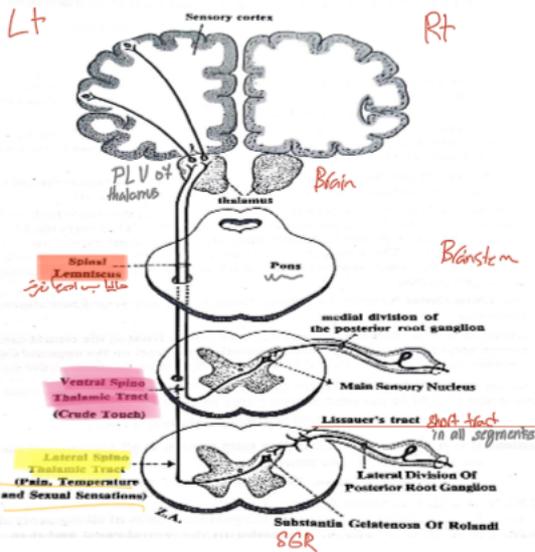
✔ Answer Key

Study Set: 1-B, 2-B, 3-C, 4-B, 5-C, 6-B, 7-C, 8-C, 9-B, 10-D

Exam Set: 11-B, 12-B, 13-B, 14-C, 15-C, 16-A, 17-C, 18-B, 19-B, 20-A

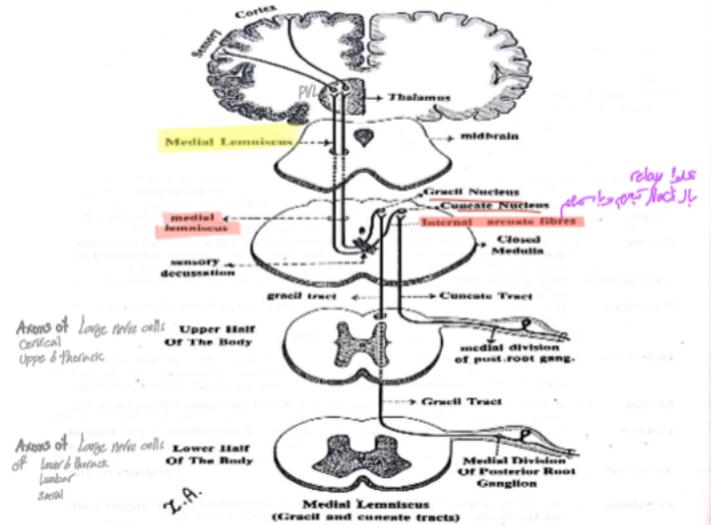
Long Ascending Tracts that reach CC

Lateral & Ventral spinothalamic tracts

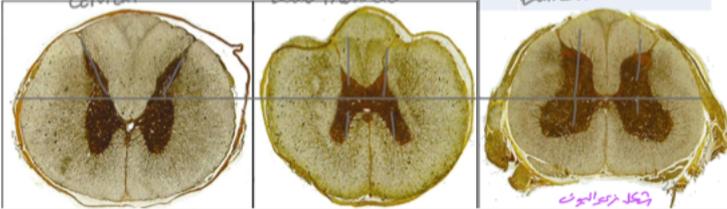


Gracil & Cuneate tracts

proprioception + fine touch



	Cervical	Lower Thoracic	Lumbar
Shape	Oval	Round	Oval
Central canal	More anterior	Slight anterior	Central
Posterior horns	Thin & diverging <i>spinal cord</i>	Thin & parallel	Thick & parallel
Anterior horns	Thick	Thin & parallel	Thick & parallel
Lateral horns (thoracolumbar!)	-----	present	Present (L1-L3) only
White matter		Large compared to grey matter	Very little compared to grey matter



Levels of the spinal cord:

- Spinal cord at the cervical region. *Clark's - C8*
- Spinal cord at the upper thoracic region. *Olivospinal + ventral vestibular spinothalamic tract*
- Spinal cord at the lower thoracic region. *comma shaped + Cuneate + direct pyramidal*
- Spinal cord at the lumbar region. *posterior spino cerebellar tract*

سبب من الكلام التقليدي
 يتبع رجلي عندك امل، اسمها رطلع الأمل الى جواد... لأنه في
 الحقيقة الأمل موجود جواد بالفعل... بس محتاج منك تصدقه
 وتستخدمه.