## The International Standards for Neurological Classification of Spinal Cord Injury: Classification Workbook

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In this workbook, we present 26 practice cases. Detailed explanations for the correct classifications can be found here. These cases reinforce important ISNCSCI rules and definitions. Potentially challenging concepts from the 2019 ISNCSCI update, including revised definitions of the ZPPs and documentation of non-SCI conditions, are also reviewed.

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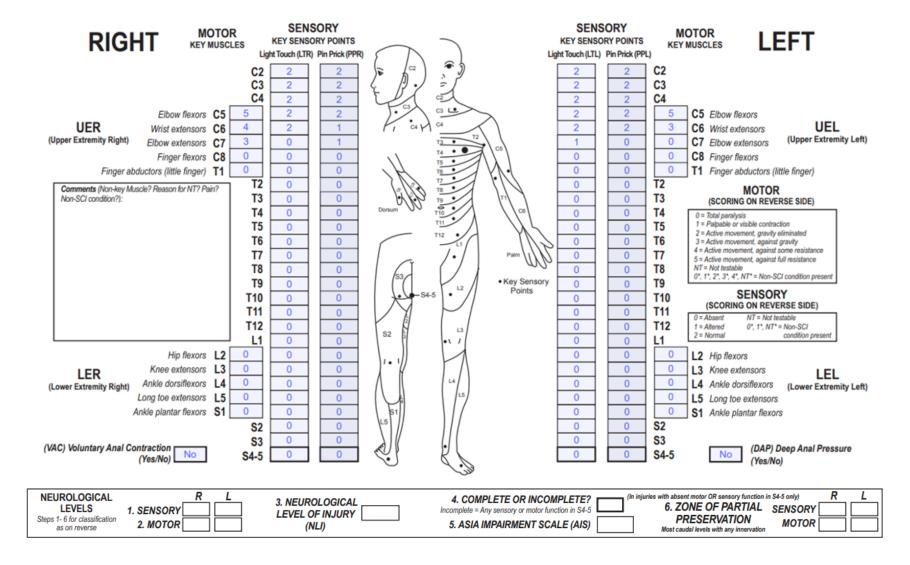
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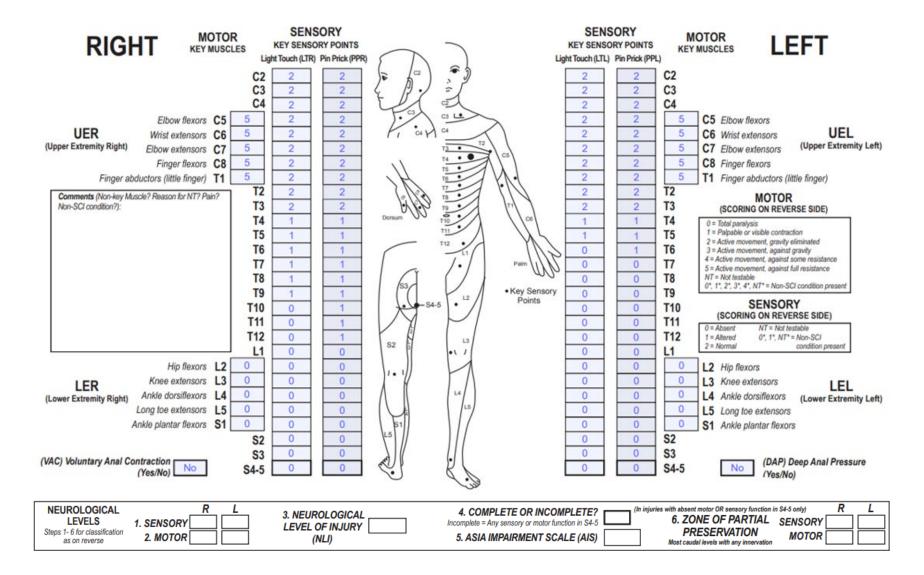
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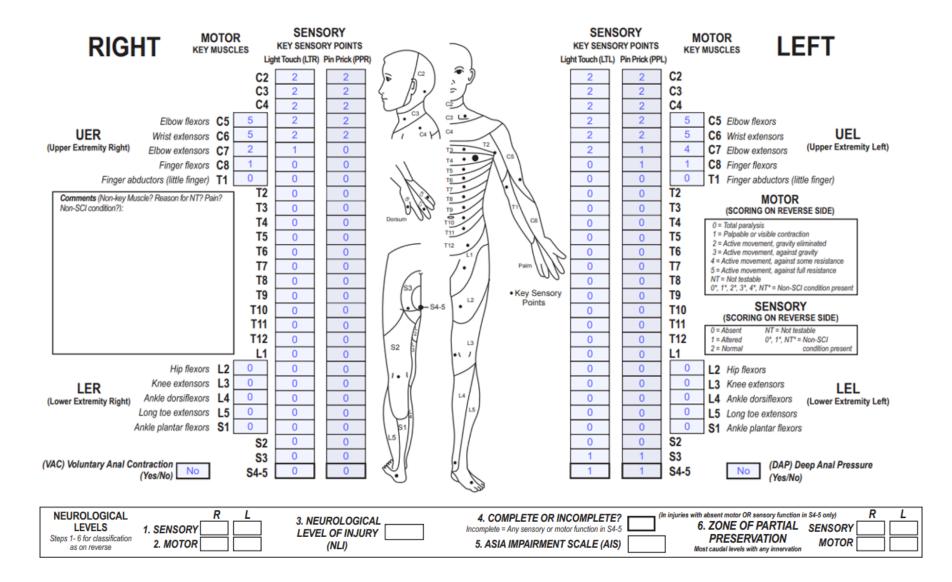
<sup>&</sup>lt;sup>12</sup>Praxis Spinal Cord Institute, Vancouver, Canada

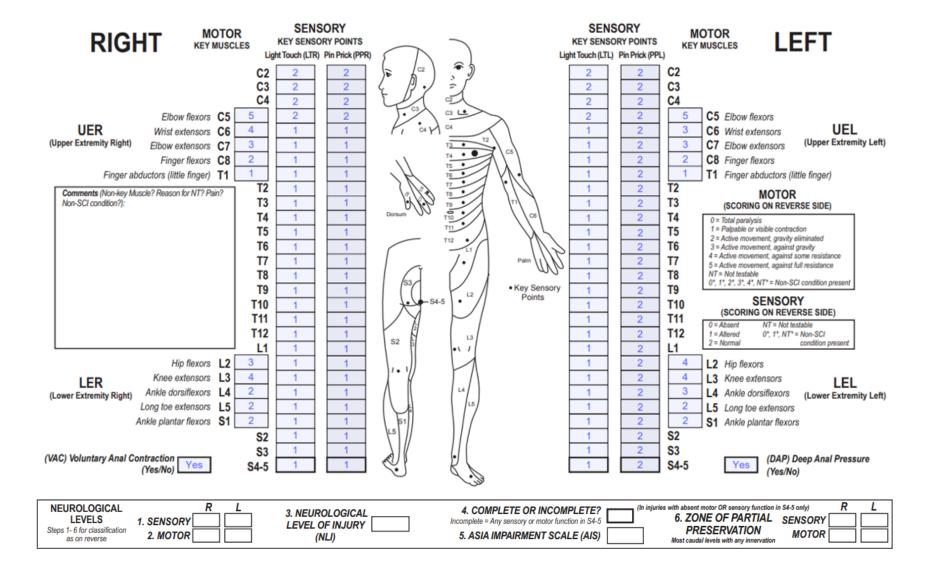
## **CASES**

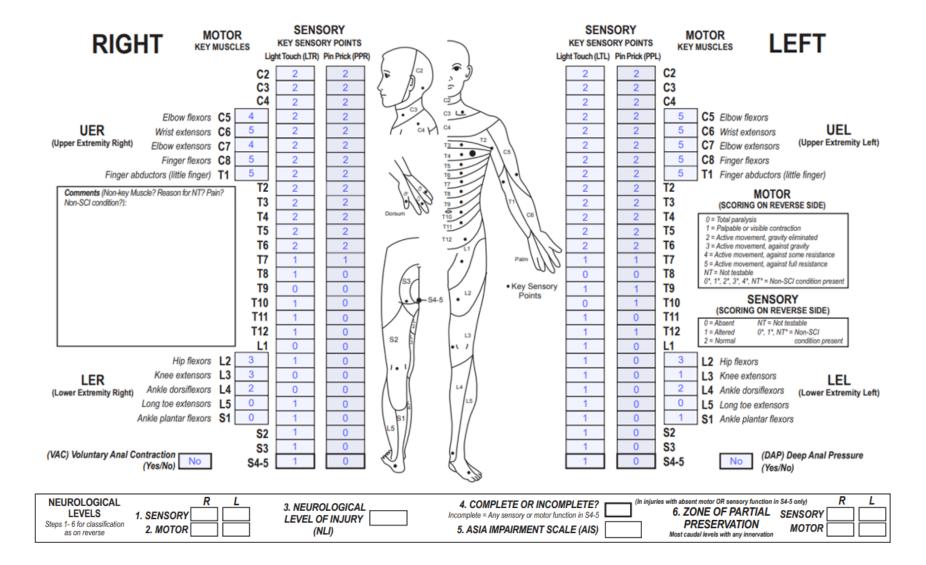
## Case 1

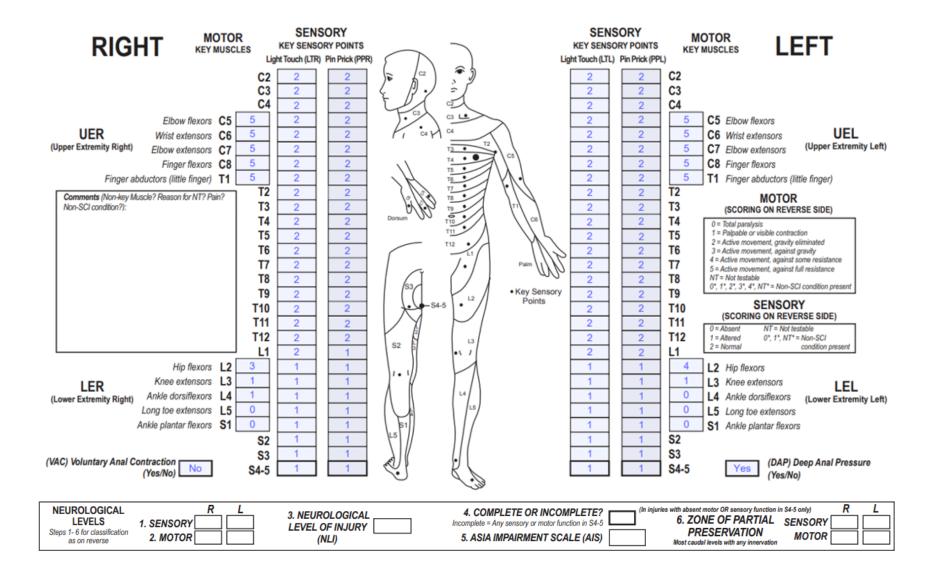


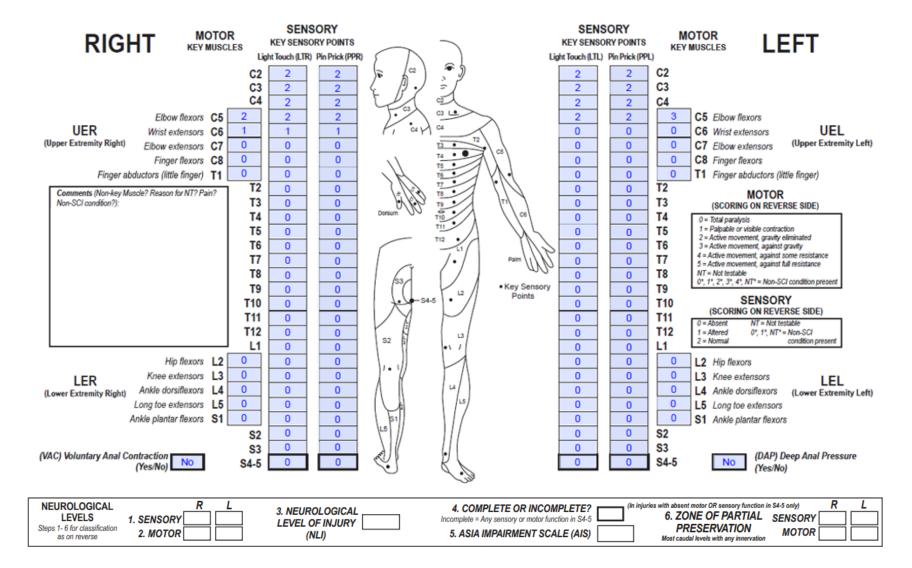


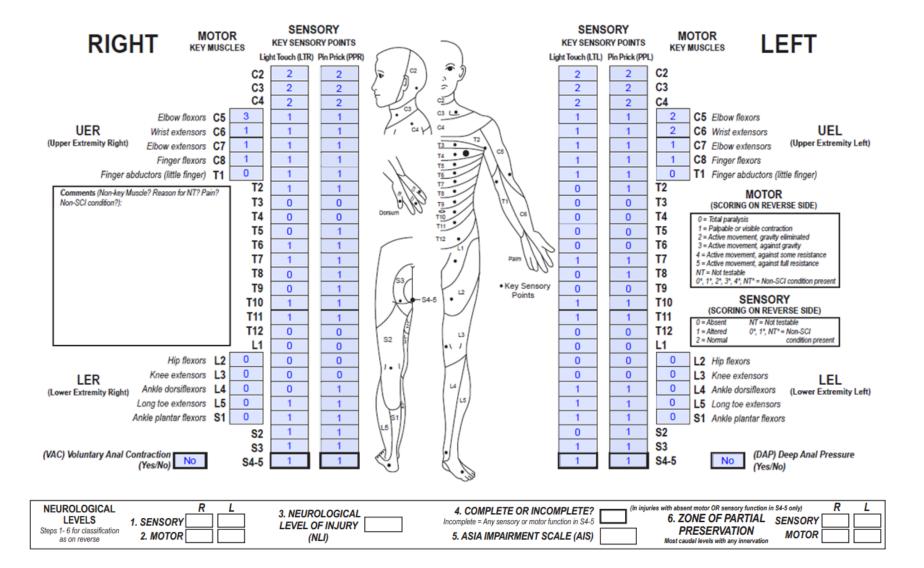


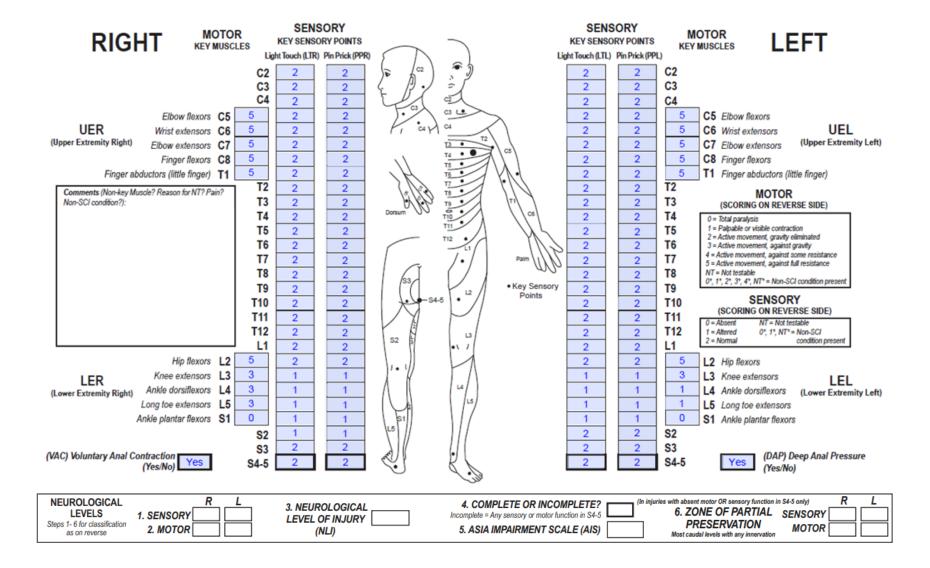


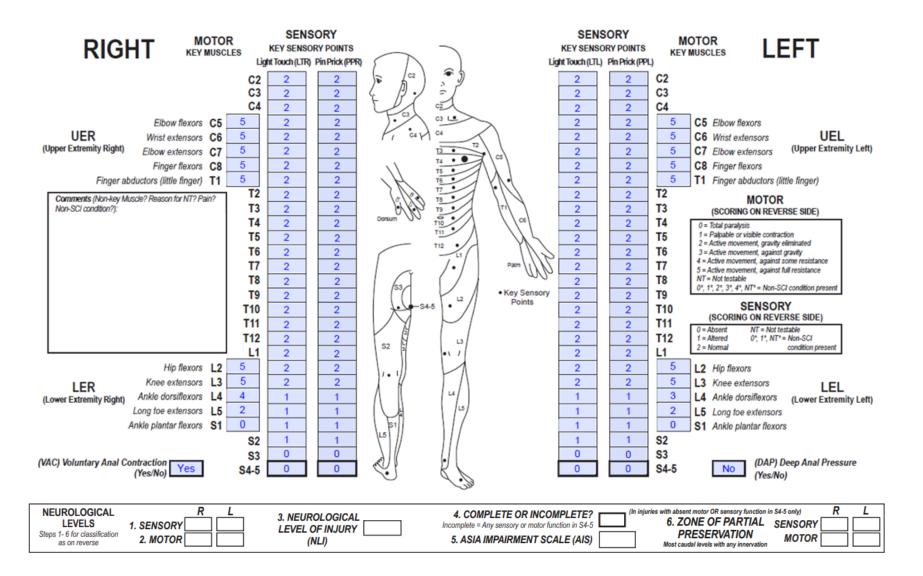


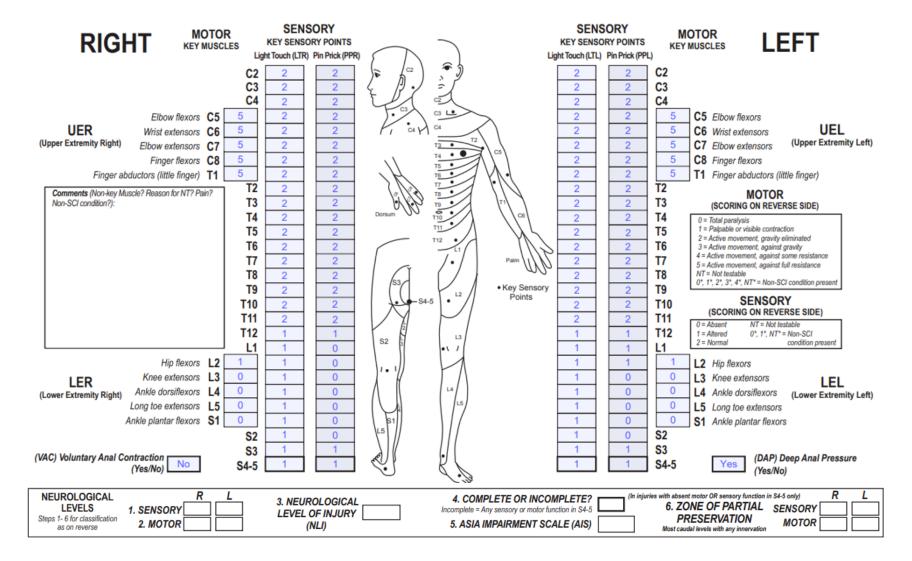


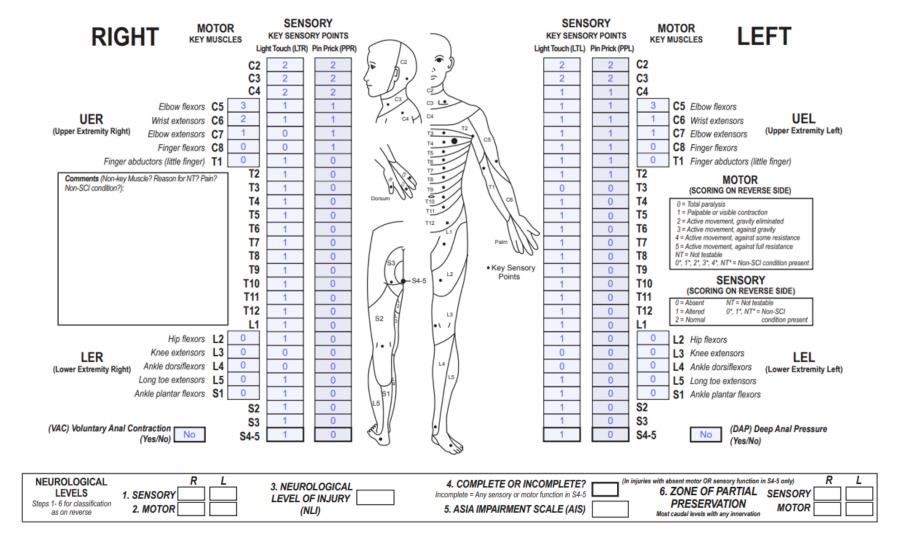


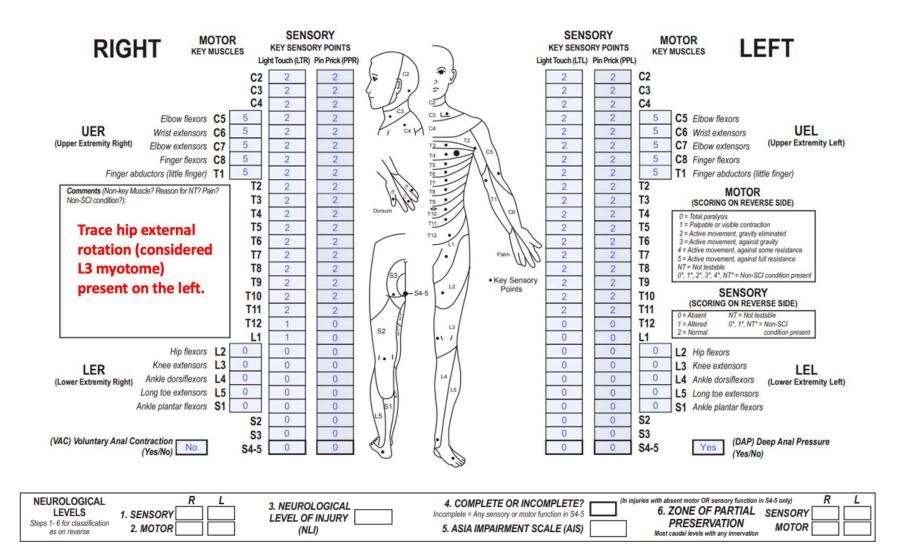




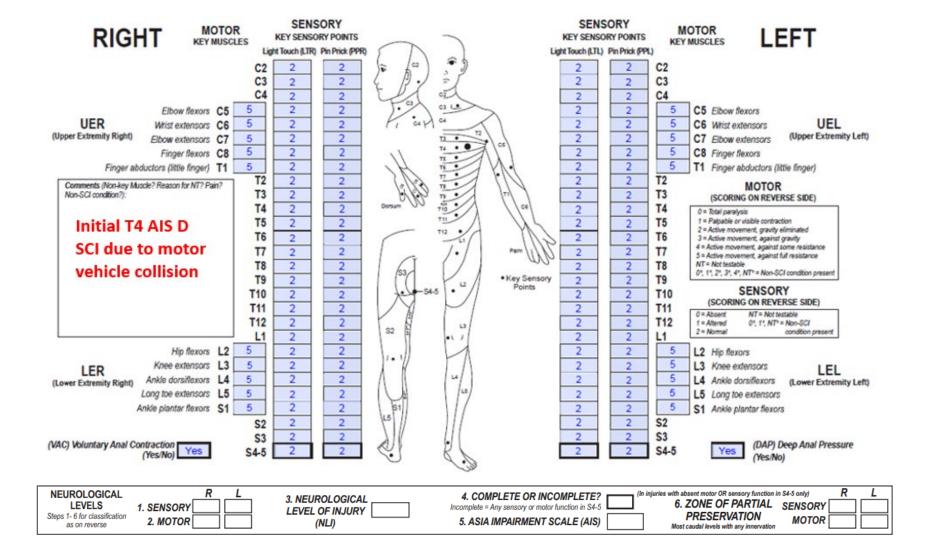


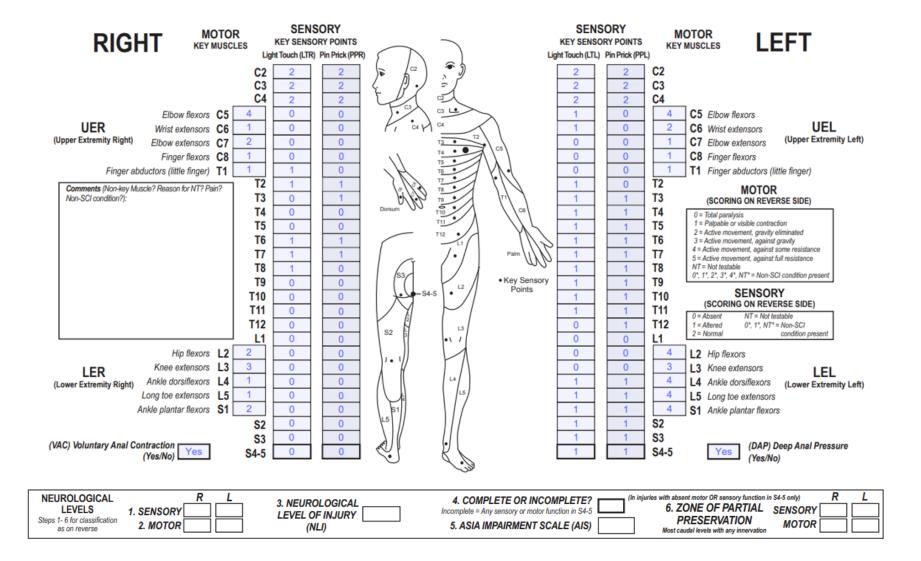


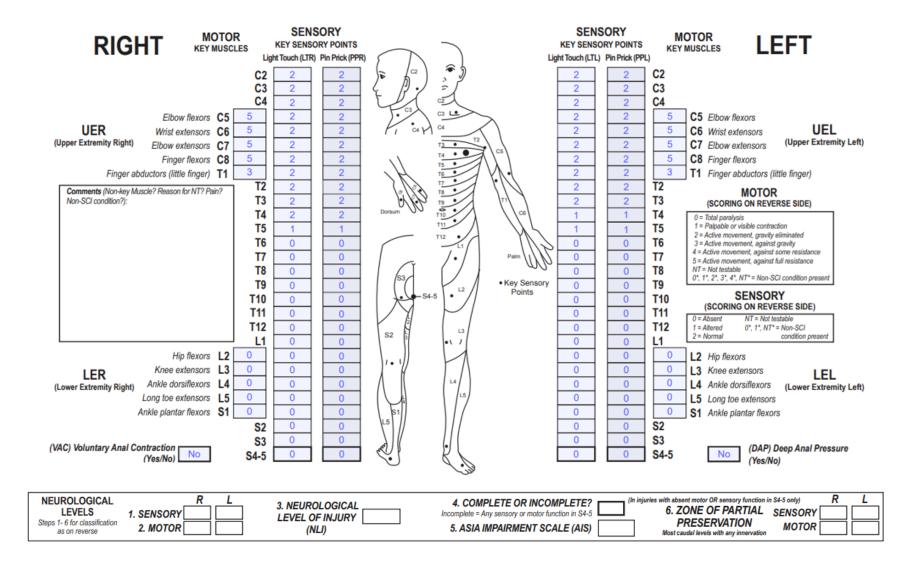


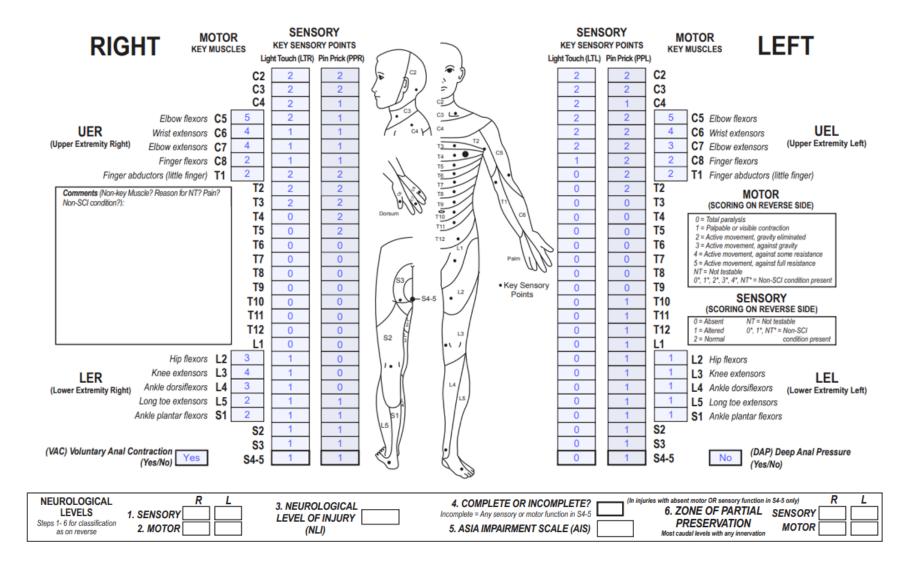


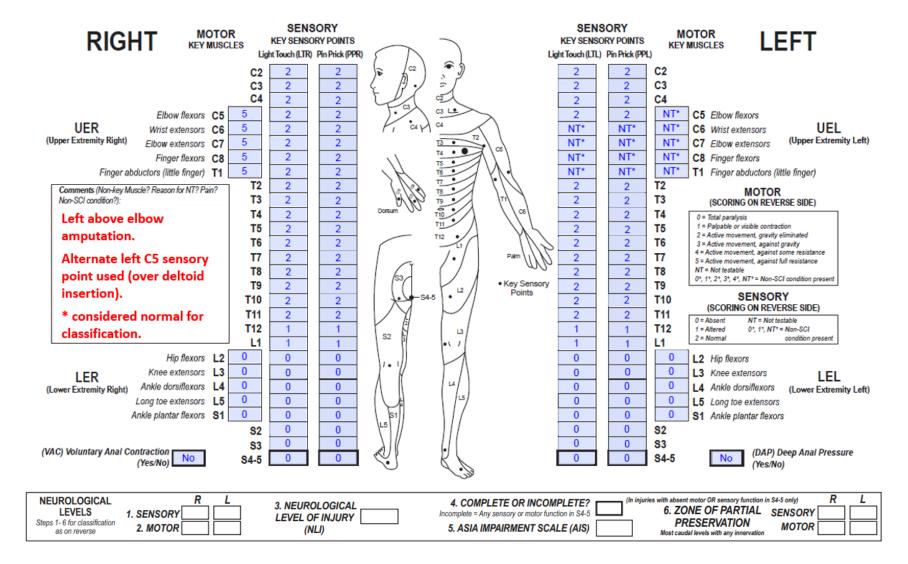
RIGHT MOTOR KEY MUSCLES	SENSORY KEY SENSORY POINTS		SENSORY KEY SENSORY POINTS	MOTOR LEFT
UER Wrist extensors C6 C7 Finger flexors C8 C8 Finger abductors (little finger) T1 Comments (Non-key Muscle? Reason for NT? Pain? Non-SCI condition?):  Hip flexors L2 Condition?  Knee extensors L3 Condition Can be extensored L4 Cong to e extensors L5 Ankle plantar flexors S1 C7  WAC) Voluntary Anal Contraction Can be extensored C5  Winter Extremity Right) Contraction C5  Washington C5  Winter Extremity Right) Contraction C5  Washington C5  Washington C5  Winter Extremity Right) C5  Washington C5  Winter Extremity Right) C6  Winter Extremity Right) C6  Winter Extremity Right) C7  Winter Extremity Right C7  Wi	Light Touch (LTR) Pin Prick (PPR)  C2 1 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C2 C3 C4 T3 T4 T5 T5 T6 T8 T10 T11 T12 L1 Palm  • Key Sensor Points	Light Touch (LTL)   Pin Prick (PPL     1	C2 C3 C4  O C5 Elbow flexors O C6 Wrist extensors O C8 Finger flexors O T1 Finger abductors (little finger)  T2 MOTOR (SCORING ON REVERSE SIDE)  O = Total paralysis 1 = Palpable or visible contraction 2 = Active movement, against gravity 4 = Active movement, against full resistance NT = Not testable O', 1', 2', 3', 4', NT' = Non-SCI condition present  T1 SENSORY (SCORING ON REVERSE SIDE)  O = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  U = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  U = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  U = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  U = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  U = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  O = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  O = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  O = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  O = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)  O = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  O = Absent NT = Not testable 1 = Altered O', 1', NT' = Non-SCI 2 = Normal  CONTING ON REVERSE SIDE)
NEUROLOGICAL LEVELS 1. SENSORY teps 1-6 for classification as on reverse 2. MOTOR	3. NEUROLOGICAL LEVEL OF INJURY (NLI)	4. COMPLETE OR INCO Incomplete = Any sensory or motor 5. ASIA IMPAIRMENT S	function in S4-5	ies with absent motor OR sensory function in S4-5 only)  R L  6. ZONE OF PARTIAL SENSORY PRESERVATION MOTOR MOTOR

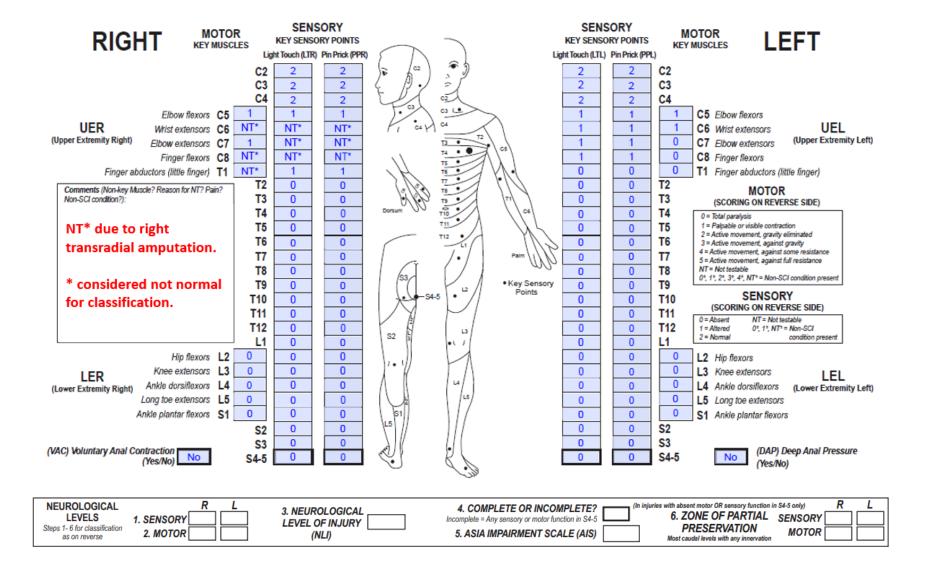


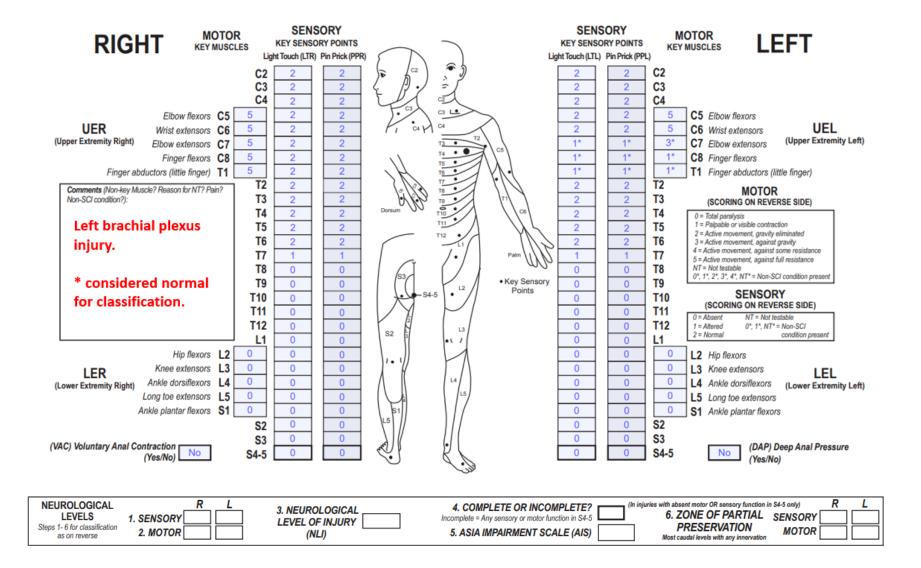


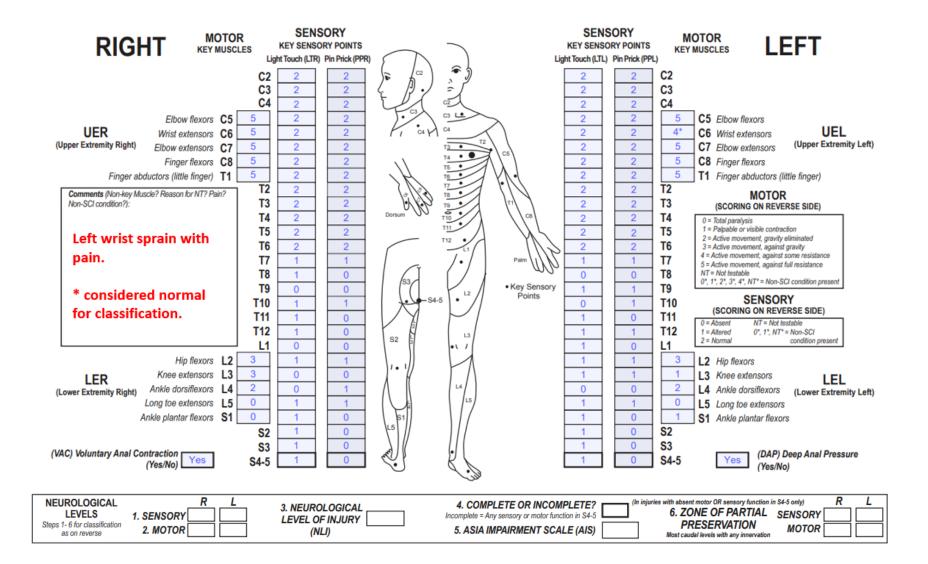


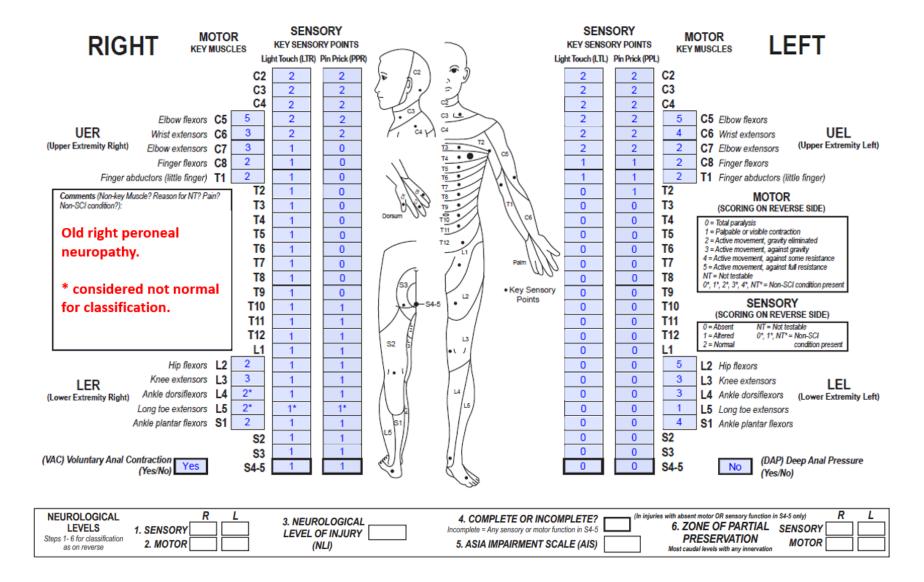


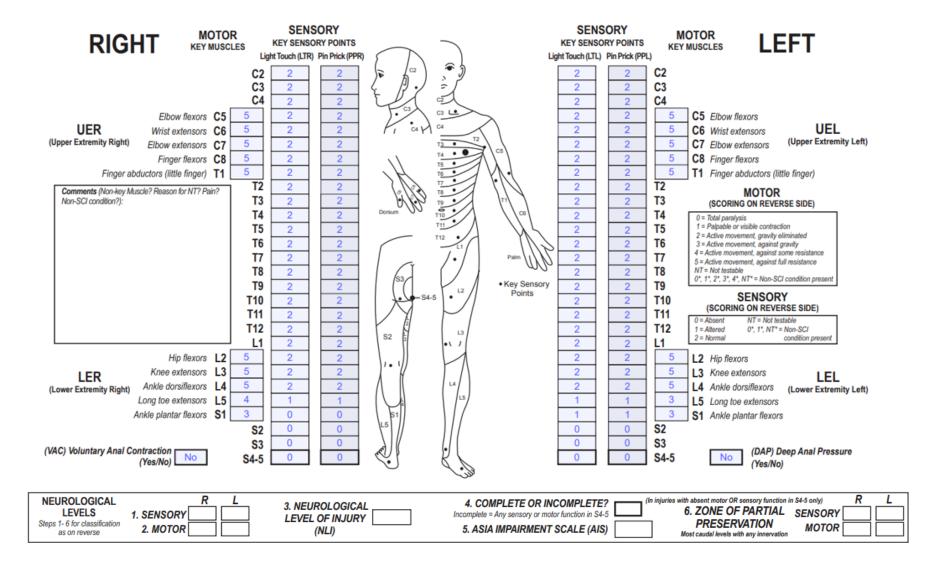


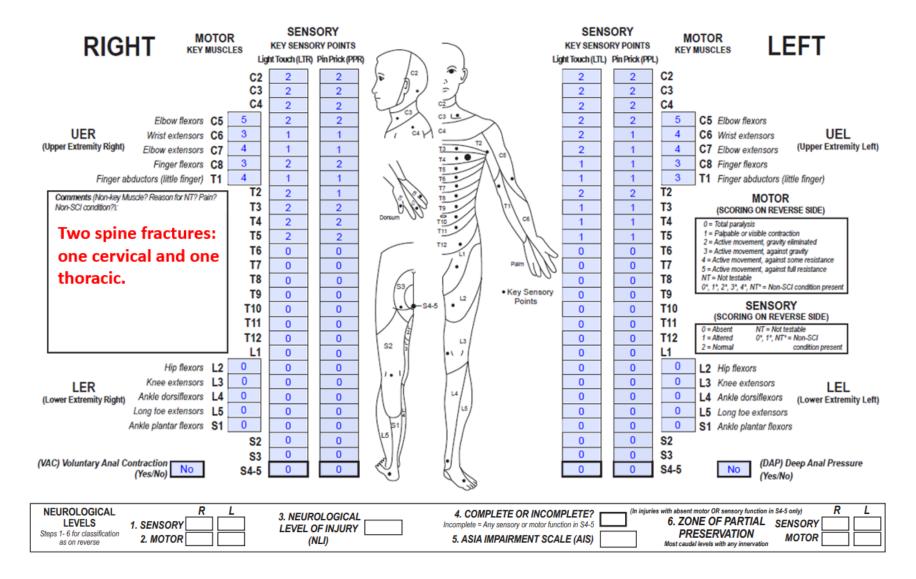












Classification.  T11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Hip flexors L2 LER (Lower Extremity Right)  Long toe extensors L4 Long toe extensors L5 Ankle plantar flexors S1  (VAC) Voluntary Anal Contraction	CLES KEY SENSORY POINTS  Light Touch (LTR) Pin Prick (PPR)  C2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	C3 C3 C4 T1 T2 C5 T1 C6 T1 T1 T1 T1 C6 T1 T1 T1 C6 T1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	C2 C3 C4  5 C5 Elbow flexors C6 Wrist extensors C7 Elbow extensors C8 Finger flexors C8 Finger flexors C9 T1 Finger abductors (little finger) T1 Finger abductors (little finger) T2 MOTOR T3 (SCORING ON REVERSE SIDE)  T4 0 = Total paralysis 1 = Palpable or visible contraction 2 = Active movement, against gravity 4 = Active movement, against some resistance 5 = Active movement, against full resistance NT = Not testable 0°, 1°, 2°, 3°, 4°, NT° = Non-SCI condition present  T10 SENSORY (SCORING ON REVERSE SIDE)  T1 5 = Active movement, against full resistance NT = Not testable 0°, 1°, 2°, 3°, 4°, NT° = Non-SCI condition present  T1
(Yes/No) NO S4-5 (Yes/No)	(res/nu)	S4-5 0 0		0 0	(Yes/No)