

## Toronto Western Spasmodic Torticollis Rating Scale – severity (TWSTRS)

This scale is used to assess the severity of cervical dystonia and the success of its treatment. A total score of 0 to 35 can be achieved; this is made up of various subscores (A-F).

A. Maximal excursion		
Assessment of the maximum range of movement. The patient is asked not to suppress the involuntary movement. The examiner can use provocation manoeuvres which make the symptoms worse. If the severity lies between two values, the value for the more severe disorder is selected.		
1. Rotation (left or right)	0	None
	1	Slight (1-22°)
	2	Mild (23-45°)
	3	Moderate (46-67°)
	4	Severe (68-90°)
2. Laterocollis (excluding shoulder elevation)	0	None
	1	Mild (1-15°)
	2	Moderate (16-35°)
	3	Severe (>35°)
3. Anterocollis/retrocollis	a) Anterocollis	
	0	None
	1	Mild downward deviation of chin
	2	Moderate downward deviation of chin
	3	Severe (chin reaches chest)
	b) Retrocollis	
	0	None
	1	Mild backward deviation
	2	Moderate (half the possible range of movement)
	3	Severe
4. Lateral shift	0	Absent
	1	Present
5. Sagittal shift	0	Absent
	1	Present

B. Duration (weighted x 2)	
0	None
1	Occasional deviation (<25% of the time, most often submaximal)
2	Occasional deviation (<25% of the time, most often maximal) or intermittent deviation (25-50% of the time, most often submaximal)
3	Intermittent deviation (25-50% of the time, often maximal) or frequent deviation (50-75% of the time, most often submaximal)
4	Frequent deviation (50-75% of the time, most often maximal) or constant deviation (>75% of the time, most often submaximal)
5	Constant deviation (>75% of the time, often maximal)
C. Effect of sensory tricks	
0	Complete relief
1	Partial or only limited relief
2	Little or no benefit
D. Shoulder elevation or anterior displacement	
0	Absent
1	Mild (<1/3 of possible range), intermittent or moderate and intermittent
2	Moderate (1/3 to 2/3 of possible range and constant, >75% of the time) or severe (>2/3 of possible range) and intermittent
3	Severe and constant
E. Range of motion (without sensory tricks)	
If there are limitations on more than one level, the highest value is recorded in each case.	
0	Able to move to extreme opposite position
1	Able to move head well past midline but not to extreme opposite position
2	Able to move head barely past midline
3	Able to move head toward but not past midline
4	Barely able to move head beyond abnormal posture
F. Time	
Maximum time for which patient is able to maintain head in neutral position without sensory tricks	
0	>60 sec
1	46-60 sec
2	31-45 sec
3	16-30 sec
4	<15 sec