

## The ALS Severity Score of Hillel et al (ALSSS)

Overview: Hillel et al developed the ALS Severity Scale (ALSSS) to evaluate patients with amyotrophic lateral sclerosis. The score when combined with measurement of vital capacity can provide a rapid and accurate assessment of the patient's disease status. Since the disease is progressive the scale can help identify the next problem areas and so can aid in treatment planning. The authors are from the University of Washington in Seattle.

Measures:

- (1) speech
- (2) swallowing
- (3) lower extremity and walking
- (4) upper extremity dressing and hygiene

<b>Speech</b>	<b>Ability (see Table I page 143)</b>	<b>Points</b>
normal speech processes	normal	10
	nominal abnormalities	9
detectable speech disturbances	perceived speech changes	8
	obvious speech abnormalities	7
intelligible with repeating	repeats message on occasion	6
	frequent repeating required	5
speech combined with nonverbal communication	speech plus nonverbal communication	4
	limits speech to one word response	3
loss of useful speech	vocalizes for emotional expression	2
	nonvocal	1
	tracheostomy	X

where:

- Determining the score when a tracheostomy is present is not stated so I used 1 point.

<b>Swallowing</b>	<b>Ability (see Table II page 144)</b>	<b>Points</b>
normal eating habits	normal swallowing	10
	nominal abnormality	9
early eating problems	minor swallowing problems	8

	prolonged time or smaller bite size	7
dietary consistency changes	soft diet	6
	liquefied diet	5
needs tube feeding	supplemental tube feedings	4
	tube feeding with occasional oral nutrition	3
no oral feeding	secretions managed with aspirator and/or medications	2
	aspiration of secretions	1

<b>Lower Extremity and Walking</b>	<b>Ability (see Table III page 145)</b>	<b>Points</b>
normal	normal ambulation	10
	fatigue suspected	9
early ambulation difficulties	difficulty with uneven terrain	8
	observed changes in gait	7
walks with assistance	walks with mechanical device	6
	walks with mechanical device and assistant	5
functional movement only	able to support weight	4
	purposeful leg movements	3
no purposeful leg movements	minimal movement	2
	paralysis	1

<b>Upper Extremity Dressing and Hygiene</b>	<b>Ability (see Table IV page 146)</b>	<b>Points</b>
normal function	normal	10
	suspected fatigue	9
independence and complete self-care	slow self	8
	effortful self-care performance	7

intermittent assistance	mostly independent	6
	partial independence	5
needs attendant for self-care	attendant assists patient	4
	patient assists attendant	3
total dependence	minimal movement	2
	paralysis	1

bulbar score =

= (speech subscore) + (swallowing subscore)

spinal score =

= (lower extremity subscore) + (upper extremity subscore)

Interpretation:

- minimum total score: 4
- maximum total score: 40
- The lower the score the more impairment is present.

Performance:

- The average estimated reliability coefficient between examiners: 0.95
- The correlation between the speech rating and objective speech measures: > 0.80

References:

Hillel AD Miller RM et al. Amyotrophic Lateral Sclerosis Severity Scale. Neuroepidemiology. 1989; 8: 142-150