Boston Carpal Tunnel Questionnaire

Sources: Levine DW, Simmons BP, Koris MJ, Daltroy LH, Hohl GG, Fossel AH, Katz JN. J Bone Joint Surg Am. 1993 Nov;75(11):1585-92.

Originally developed by Levine et al. (1993), the questionnaire comprises of two scales; a Symptom Severity Scale (SSS) and a Functional Status Scale (FSS). The SSS incorporates six items for evaluation (pain, test-retest reliability of paraesthesia, numbness, weakness, nocturnal symptoms and overall functional status) while the FSS includes twelve functional activity items commonly affected in CTS (e.g. writing and holding a cup).

The questionnaire was developed specifically for patients with CTS and both physicians and patients were involved the item generation process.

Scoring instructions

The SSS consists of 11 questions and is scored on a five-point rating scale. The FSS contains 8 items which have to be rated for degree of difficulty on a five-point scale. The overall score for each scale is calculated as the mean of the items.

Scores for each scale (SSS & FSS) are calculated independently and are not combined. The score for scale is calculated as the unweighted mean of all answered items for the scale (range: 1-5)

Example: SSS scale—sum of responses= 16; sum/number of items= 16/11= 1.5
FSS scale---sum of responses= 14; sum/number of items= 14/8= 1.8

Interpretation of scores

The mean change between pre- and postoperative scores for the Symptom Severity Scale for the satisfied, somewhat satisfied and dissatisfied patients were 1.6, 1.0 and 0.2 respectively, indicating that a minimum difference of 0.8 can be deemed as clinically important using patients satisfaction as a criterion. For the Functional Status Scale the mean change pre- and post-operatively were 1.0, 0.6 and 0.1 for the satisfied, somewhat satisfied and dissatisfied patients respectively, suggesting that a value of 0.5 is clinically important.

References

Levine DW, Simmons BP, Koris MJ, Daltroy LH, Hohl GG, Fossel AH, et al. A self-administered questionnaire for the assessment of severity of symptoms and functional status in carpal tunnel syndrome. JBJS [A] 1993; 75-A:1585-1592.
Amadio PC, Silverstein MD, Ilstrup DM, Schleck CD, Jensen LM. Outcome assessment for carpal tunnel surgery: the relative responsiveness of generic, arthritis-specific, disease specific, and physical examiniation measures. JBJS [A] 1996; 21A:338-346.
Katz JN, Punnett L, Simmons BP, Fossel AH, Mooney N, Keller RB. Workers' compensation recipients with carpal tunnel syndrome: the validity of self-reported health measures. Am J Public Health 1996; 86:52-56

BOSTON CARPAL TUNNEL QUESTIONNAIRE – SYMPTOM SEVERITY SCALE

Name _____ Number _____ Date _____

The following questions refer to your symptoms for a typical 24hr. period during the last 2 weeks (circle one answer to each question).

1. How severe is the hand or wrist pain that you have at night?

① I do not have hand or wrist pain
② Mild pain
③ Moderate pain
④ Severe pain
⑤ Very severe pain

2. How often did hand or wrist pain wake you up during a typical night I the past two weeks?

① Never
② Once
③ Two to three times
④ Four or five times
⑤ More than five times

3. Do you typically have pain in your hand or wrist during the day time?

① I never have pain during the day
② I have mild pain during the day
③ I have moderate pain during the day
④ I have severe pain during the day
⑤ I have very severe pain during the day

4. How often do you have hand or wrist pain during the daytime?

① Never
② Once or twice a day
③ Three to five times a day
④ More than five times a day
⑤ The pain is constant

5. How long, on average, does an episode of pain last during the daytime?

① I never get pain during the day
② Less than 10 minutes
③ 10 to 60 minutes
④ Greater than 60 minutes
⑤ The pain is constant throughout the day

6. Do you have numbness (loss of sensation) in your hand?

① No
② I have mild numbness
③ I have moderate numbness
④ I have severe numbness
⑤ I have very severe numbness

7. Do you have weakness in your hand or wrist?

① No weakness
② Mild weakness
③ Moderate weakness
④ Severe weakness
⑤ Very severe weakness

8. Do you have tingling sensations in your hand?

① No tingling
② Mild tingling
③ Moderate tingling
④ Severe tingling
⑤ Very severe tingling

9. How severe is numbness (loss of sensation) or tingling at night?

① I have no numbness or tingling at night
② Mild
③ Moderate
④ Severe
⑤ Very severe

10. How often did hand numbness or tingling wake you up during a typical night during the past two weeks?

① Never
② Once
③ Two or three times
④ Four or five times
⑤ More than five times

11. Do you have difficulty with the grasping and use of small objects such as keys or pens?

① No difficulty
② Mild difficulty
③ Moderate difficulty
④ Severe difficulty
⑤ Very severe difficulty

Scoring: Questions are scored on a vertical scale of 1-5. Total scores and divide by 11 to calculate mean score.

Score_____ / 11= SSS _____

BOSTON CARPAL TUNNEL QUESTIONNAIRE – FUNCTIONAL STATUS SCALE

Name _____ Number _____ Date _____

On a typical day during the past two weeks have hand and wrist symptoms caused you to have any difficulty dong the activities listed below? Please circle one number that best describes your ability to do the activity.

ACTIVITY	NO DIFFICULTY	MILD DIFFICULTY	MODERATE DIFFICULTY	SEVERE DIFFICULTY	CANNOT DO AT ALL DUE TO HAND OR WRIST SYMPTOMS
Writing	1	2	3	4	5
Buttoning of clothes	1	2	3	4	5
Holding a book while reading	1	2	3	4	5
Gripping of a telephone handle	1	2	3	4	5
Opening of jars	1	2	3	4	5
Household Chores	1	2	3	4	5
Carrying of grocery bags	1	2	3	4	5
Bathing and dressing	1	2	3	4	5

Scoring: Questions are scored on a vertical scale of 1-5. Total scores and divide by 11 to calculate mean score.

Score_____ / 11= SSS _____

MCID- Not established; SRM: SSS=1.75 - 2.02; FSS- .96 – 1.26

From: Levine: J Bone Joint Surg Am, Volume 75-A(11).November , 1993.1585-1592. A self-administered questionnaire for the assessment of severity of symptoms and functional status in carpal tunnel syndrome.