

# Fatigue Severity Scale (FSS)

## Assessment Overview

### Assessment Area

**ICF Domain:**

Body Function

**Subcategory:**

Mental Function

### You Will Need

**Length:**

Approximately 5 minutes to complete 9 items.

**Scoring:**

Participants choose the level of agreement for each question, from 1 (strongly disagree) to 7 (strongly agree).

Ratings are based on their experience of fatigue over the past seven days.

Sum the score from each item to get a total score.

### Summary

The Fatigue Severity Scale (FSS) was originally developed for use among people with Multiple Sclerosis, and it captures the individual's experience of mental or psychological fatigue and how it interferes with performing certain activities (exercise, work and family life).

### Availability

Available for free in English at:

<https://geriatrictoolkit.missouri.edu/fatigue/Fatigue-Severity-Scale.pdf>

## Assessment Interpretability

### Minimal Clinically Important Difference

**MDC for total FSS = 1.55**

(Anton et al. 2008; n=48, 31 males, motor complete SCI, tertiary care)

### Statistical Error

**SEM = 0.56**

(Anton et al. 2008; n=48, 31 males, motor complete SCI, tertiary care)

### Typical Values

**Total Mean (SD) FSS Score = 4.4 (1.4)**

(Anton et al. 2008; n=48, 31 males, motor complete SCI, tertiary care)

Assuming a FSS cut-score of 4 to indicate significant fatigue:

**Sensitivity = 75%**

**Specificity = 67%**

(Anton et al. 2008; n=48, 31 males, motor complete SCI, tertiary care)

**FSS Score (SD; 95% CI):**

Control (N=250) = 3.4 (1.4; 3.23-3.59)

**MS population (N=85) = 4.1 (1.6; 3.83-4.52)**

(Gavrilov et al. 2018, N=85 (MS patients, 32M, 53F), Mean age (SD): 37.6 (10.2))

## Measurement Properties

### Validity – **Low to High**

#### **Moderate** ROC Analysis:

Area under the curve = 0.799

(Anton et al. 2008; n=48, 31 males, motor complete SCI, tertiary care)

#### **Low to High** correlation with Fatigue Impact Scale:

FIS<sub>cognitive</sub>:  $r=0.35$ ,  $P=0.001$

FIS<sub>physical</sub>:  $r=0.82$ ,  $P<0.001$

FIS<sub>psychosocial</sub>:  $r=0.75$ ,  $P<0.001$

(Gavrilov et al. 2018, N=85 (MS patients, 32M, 53F), Mean age (SD): 37.6 (10.2))

#### **Not Ranked**

Odds Ratio (95% CI) = 1.69 (1.09-2.29)

$\chi^2 = 3.23$ ; p-value = 0.07

(Craig et al. 2015; n=88 (62 males, 26 females); mean age (SD): 42.6 (17.8); 39%

Tetraplegic, 61% Paraplegic)

**Number of studies reporting validity data: 3**

### Reliability – **High**

#### **High** Test-retest Reliability (2 weeks):

Total ICC = 0.84 (95% CI = 0.74–0.90)

Items ICC ranged from 0.32-0.77

(Anton et al. 2008; n=48, 31 males, motor complete SCI, tertiary care)

#### **High** Test-retest Reliability (2 weeks):

Total ICC = 0.78-0.89

(Gavrilov et al. 2018, N=85 (MS patients, 32M, 53F), Mean age (SD): 37.6 (10.2))

#### **High** Internal Consistency:

Cronbach's  $\alpha = 0.88-0.96$

(Anton et al. 2008; n=48, 31 males, motor complete SCI, tertiary care)

(Gavrilov et al. 2018, N=85 (MS patients, 32M, 53F), Mean age (SD): 37.6 (10.2))

**Number of studies reporting reliability data: 2**

## Responsiveness

#### **Floor/Ceiling Effect:**

*Not established in SCI*

**In MS population:**

Floor=2.4%

Ceiling=0.9%

(Gavrilov et al. 2018, N=85 (MS patients, 32M, 53F),

Mean age (SD): 37.6 (10.2))

#### **Effect Size:**

Not established in SCI

#### **Number of studies reporting**

**responsiveness data: 0**