

**Purpose** Using this single-item scale, trained clinicians assign individuals a Restless Legs Syndrome (RLS) severity score based on the time of day at which symptoms begin to appear. This score acts as a subjective measure of RLS which can be used as a quick screening device and also as a longitudinal instrument for evaluating treatment outcomes.

**Population for Testing** The scale has been validated with patients aged 29–81 years, though it should presumably be indicated for use with younger adult RLS patients as well.

**Administration** Rating is conducted by a trained clinician and does not necessarily even require face-to-face interview – raters in a study conducted by Allen and Earley [1] used patient charts to assign scores. Administration time will depend on the individual rater and the situation in which the patient is being evaluated. However, 5–10 min should be sufficient.

**Reliability and Validity** Developers Allen and Earley [1] evaluated the psychometric properties of the scale against the results of overnight

polysomnography. They demonstrated an inter-rater reliability of .91, and results of the scale correlated highly with sleep efficiency ( $r=.60$ ) and periodic leg movements per hour of sleep ( $r=.45$ ) as measured by the polysomnogram.

**Obtaining a Copy** The developers' original article explains the scoring of the scale [1].

Direct correspondence to:  
Richard P. Allen  
Department of Neurology,  
John Hopkins University  
Bayview Medical Center,  
Neurology and Sleep Disorders  
A Building 6-C, Room 689  
4940 Eastern Avenue  
Baltimore, MD 21224, USA

**Scoring** Clinicians assign patients ratings based on the following criterion: a score of 0 means that symptoms are never experienced, 1 (mild) means symptoms begin within an hour of bedtime, 2 (moderate) designates symptoms that begin in the evening (sometime after 6:00), and 3 (severe) means that symptoms begin during the day (before 6:00).

**Johns Hopkins Restless Legs Severity Scale (JHRLSS)****Score                      Usual time of day when RLS symptoms start (after 12 noon)**

- 0 (NEVER)      No Symptoms
- 0.5 infrequent Symptoms less than daily or almost daily
- 1 (Mild)            AT BEDTIME and/or during the sleep period. (Symptoms may occur within 60 minutes before the usual bed or simply at the time of going to bed or during the night after in bed.)
- 2 (Moderate)      IN THE EVENING (6 P.M. or later). Symptoms may start at anytime between 6 P.M. and the usual bedtime. (The definition of evening may need to be adjusted for patients who routinely have much later bedtimes, such as those who have an afternoon siesta.)
- 3 (Severe)            AFTERNOON (Before 6 P.M.). Symptoms start in the afternoon and persist into the evening and night
- 4 (Very Severe)    MORNING (Before noon). Symptoms may start in the morning or they may be present virtually all day. There is usually a "protected period" in the mid-morning (8-10 a.m.) with few if any symptoms. Even the protected period may have symptoms for the most severe RLS, often occurring with significant RLS augmentation.

(Note, since RLS symptoms once started tend to persist until morning, the number of hours in the day with RLS will be about 1-6 for mild, 7-12 for moderate and 13 or more for severe RLS on this scale).

## Sample Standard Questions:

1. How many days in a week or month do you have RLS symptoms \_\_\_\_\_ per week \_\_\_\_\_ per month
  
2. On a usual day what is the earliest time after 12 noon that these sensations or movements likely to occur if you were to sit down or rest? \_\_\_\_\_ P.M. \_\_\_\_\_ A.M.

Copyright © 2001 Richard Allen[1]. Reprinted with permission. This scale is not to be reproduced without written consent from Richard Allen.

---

**Reference**

1. Allen R. P., & Earley, C. J. (2001). Validation of the Johns Hopkins restless legs severity scale. *Sleep Medicine, 2*(3), 239–242.

Pearson, V. E., Allen, R. P., Dean, T., Gamaldo, C. E., Lesage, S. R., & Earley, C. J. (2006). Cognitive deficits associated with restless legs syndrome (RLS). *Sleep Medicine, 7*(1), 25–30.

---

**Representative Studies Using Scale**

Earley, C. J., Barker, P. B., Horska, K., & Allen, R. P. (2006). MRI-determined regional brain iron concentrations in early-and late-onset restless legs syndrome. *Sleep Medicine, 7*(5), 458–461.