# MORNINGNESS-EVENINGNES05S QUESTIONNAIRE Self-Assessment Version (MEQ-SA)<sup>1</sup>

Na	ime:	Date:
		h question, please select the answer that best describes you by circling the point nat best indicates how you have felt in recent weeks.
1.	App	roximately what time would you get up if you were entirely free to plan your day?
	[5] [4] [3] [2] [1]	5:00 AM-6:30 AM (05:00-06:30 h) 6:30 AM-7:45 AM (06:30-07:45 h) 7:45 AM-9:45 AM (07:45-09:45 h) 9:45 AM-11:00 AM (09:45-11:00 h) 11:00 AM-12 noon (11:00-12:00 h)
2.		roximately what time would you go to bed if you were entirely free to plan your ning?
	[5] [4] [3] [2] [1]	8:00 PM-9:00 PM (20:00-21:00 h) 9:00 PM-10:15 PM (21:00-22:15 h) 10:15 PM-12:30 AM (22:15-00:30 h) 12:30 AM-1:45 AM (00:30-01:45 h) 1:45 AM-3:00 AM (01:45-03:00 h)
3.	•	ou usually have to get up at a specific time in the morning, how much do you end on an alarm clock?
	[4] [3] [2] [1]	Not at all Slightly Somewhat Very much

Horne JA and Östberg O. A self-assessment questionnaire to determine morningness-eveningness in human circadian rhythms. International Journal of Chronobiology, 1976: 4, 97-100.

<sup>&</sup>lt;sup>1</sup>Some stem questions and item choices have been rephrased from the original instrument (Horne and Östberg, 1976) to conform with spoken American English. Discrete item choices have been substituted for continuous graphic scales. Prepared by Terman M, Rifkin JB, Jacobs J, White TM (2001), New York State Psychiatric Institute, 1051 Riverside Drive, Unit 50, New York, NY, 10032. January 2008 version. Supported by National Institute of Health Grant MH42931. *See also:* automated English version (AutoMEQ) at www.cet.org.

	Page 2			
4.	How easy do you find it to get up in the morning (when you are not awakened unexpectedly)?			
	<ul><li>[1] Very difficult</li><li>[2] Somewhat difficult</li><li>[3] Fairly easy</li><li>[4] Very easy</li></ul>			
5.	How alert do you feel during the first half hour after you wake up in the morning?			
	<ul><li>[1] Not at all alert</li><li>[2] Slightly alert</li><li>[3] Fairly alert</li><li>[4] Very alert</li></ul>			
6.	How hungry do you feel during the first half hour after you wake up?			
	<ul><li>[1] Not at all hungry</li><li>[2] Slightly hungry</li><li>[3] Fairly hungry</li><li>[4] Very hungry</li></ul>			
7.	During the first half hour after you wake up in the morning, how do you feel?			
	<ul><li>[1] Very tired</li><li>[2] Fairly tired</li><li>[3] Fairly refreshed</li><li>[4] Very refreshed</li></ul>			
8.	If you had no commitments the next day, what time would you go to bed compared to your usual bedtime?			
	<ul> <li>[4] Seldom or never later</li> <li>[3] Less that 1 hour later</li> <li>[2] 1-2 hours later</li> <li>[1] More than 2 hours later</li> </ul>			

Page 3

- 9. You have decided to do physical exercise. A friend suggests that you do this for one hour twice a week, and the best time for him is between 7-8 AM (07-08 h). Bearing in mind nothing but your own internal "clock," how do you think you would perform?
  - [4] Would be in good form
  - [3] Would be in reasonable form
  - [2] Would find it difficult
  - [1] Would find it very difficult
- 10. At *approximately* what time in the evening do you feel tired, and, as a result, in need of sleep?
  - [5] 8:00 PM-9:00 PM (20:00-21:00 h)
  - [4] 9:00 PM-10:15 PM (21:00-22:15 h)
  - [3] 10:15 PM-12:45 AM (22:15-00:45 h)
  - [2] 12:45 AM-2:00 AM (00:45-02:00 h)
  - [1] 2:00 AM-3:00 AM (02:00-03:00 h)
- 11. You want to be at your peak performance for a test that you know is going to be mentally exhausting and will last two hours. You are entirely free to plan your day. Considering only your "internal clock," which one of the four testing times would you choose?
  - [6] 8 AM-10 AM (08-10 h)
  - [4] 11 AM–1 PM (11–13 h)
  - [2] 3 PM-5 PM (15–17 h)
  - [0] 7 PM-9 PM (19–21 h)
- 12. If you got into bed at 11 PM (23 h), how tired would you be?
  - [0] Not at all tired
  - [2] A little tired
  - [3] Fairly tired
  - [5] Very tired

Page 4

- 13. For some reason you have gone to bed several hours later than usual, but there is no need to get up at any particular time the next morning. Which one of the following are you most likely to do?
  - [4] Will wake up at usual time, but will not fall back asleep
  - [3] Will wake up at usual time and will doze thereafter
  - [2] Will wake up at usual time, but will fall asleep again
  - [1] Will not wake up until later than usual
- 14. One night you have to remain awake between 4-6 AM (04-06 h) in order to carry out a night watch. You have no time commitments the next day. Which one of the alternatives would suit you best?
  - [1] Would not go to bed until the watch is over
  - [2] Would take a nap before and sleep after
  - [3] Would take a good sleep before and nap after
  - [4] Would sleep only before the watch
- 15. You have two hours of hard physical work. You are entirely free to plan your day. Considering only your internal "clock," which of the following times would you choose?
  - [4] 8 AM–10 AM (08–10 h)
  - [3] 11 AM-1 PM (11-13 h)
  - [2] 3 PM-5 PM (15-17 h)
  - [1] 7 PM–9 PM (19–21 h)
- 16. You have decided to do physical exercise. A friend suggests that you do this for one hour twice a week. The best time for her is between 10-11 PM (22-23 h). Bearing in mind only your internal "clock," how well do you think you would perform?
  - [1] Would be in good form
  - [2] Would be in reasonable form
  - [3] Would find it difficult
  - [4] Would find it very difficult

- 17. Suppose you can choose your own work hours. Assume that you work a five-hour day (including breaks), your job is interesting, and you are paid based on your performance. At *approximately* what time would you choose to begin?
  - [5] 5 hours starting between 4–8 AM (04–08 h)
  - [4] 5 hours starting between 8–9 AM (08–09 h)
  - [3] 5 hours starting between 9 AM–2 PM (09–14 h)
  - [2] 5 hours starting between 2–5 PM (14–17 h)
  - [1] 5 hours starting between 5 PM-4 AM (17-04 h)
- 18. At approximately what time of day do you usually feel your best?
  - [5] 5–8 AM (*05–08 h*)
  - [4] 8–10 AM (*08–10 h*)
  - [3] 10 AM-5 PM (10–17 h)
  - [2] 5–10 PM (17–22 h)
  - [1] 10 PM-5 AM (22-05 h)
- 19. One hears about "morning types" and "evening types." Which one of these types do you consider yourself to be?
  - [6] Definitely a morning type
  - [4] Rather more a morning type than an evening type
  - [2] Rather more an evening type than a morning type
  - [0] Definitely an evening type

\_\_\_\_ Total points for all 19 questions

#### INTERPRETING AND USING YOUR MORNINGNESS-EVENINGNESS SCORE

This questionnaire has 19 questions, each with a number of points. First, add up the points you circled and enter your total morningness-eveningness score here:



Scores can range from 16-86. Scores of 41 and below indicate "evening types." Scores of 59 and above indicate "morning types." Scores between 42-58 indicate "intermediate types."

16-30	31-41	42-58	59-69	70-86
definite	moderate	intermediate	moderate	definite
evening	evening		morning	morning

Occasionally a person has trouble with the questionnaire. For example, some of the questions are difficult to answer if you have been on a shift work schedule, if you don't work, or if your bedtime is unusually late. Your answers may be influenced by an illness or medications you may be taking. If you are not confident about your answers, you should also not be confident about the advice that follows.

One way to check this is to ask whether your morningness-eveningness score approximately matches the sleep onset and wake-up times listed below:

Score	16-30	31-41	42-58	59-69	70-86
Sleep onset	2:00-3:00 AM	12:45-2:00 AM	10:45 PM-12:45 AM	9:30-10:45 PM	9:00-9:30 PM
	(02:00-03:00 h)	(00:45-02:00 h)	(22:45-00:45 h)	(21:30-22:45 h)	(21:00-21:30 h)
Wake-up	10:00-11:30 AM	8:30-10:00 AM	6:30-8:30 AM	5:00-6:30 AM	4:00-5:00 AM
	(10:00-11:30 h)	(08:30-10:00 h)	(06:30-08:30 h)	(05:00-06:30 h)	(04:00-05:00 h)

If your usual sleep onset is earlier than 9:00 PM (21:00 h) or later than 3:00 AM (03:00 h), or your wake-up is earlier than 4:00 AM (04:00 h) or later than 11:30 AM (11:30 h), you should seek the advice of a light therapy clinician in order to proceed effectively with treatment.

We use the morningness-eveningness score to improve the antidepressant effect of light therapy. Although most people experience good antidepressant response to light therapy when they take a regular morning session using a 10,000 lux white light device (see www.cet.org for recommendations) for 30 minutes, often this will not give the best possible response. If your internal clock is shifted relative to external time (as indirectly measured by your morningness-eveningness score), the timing of light therapy needs to be adjusted.

The table at the top of the next page shows the recommended start time for light therapy for a wide range of morningness-eveningness scores. If your score falls beyond this range (either very low or very high), you should seek the advice of a light therapy clinician in order to proceed effectively with treatment.

•

Page 7

Morningness-Eveningness	Start time for	
Score	light therapy	
23-26	8:15 AM	
27-30	8:00 AM	
31-34	7:45 AM	
35-38	7:30 AM	
39-41	7:15 AM	
42-45	7:00 AM	
46-49	6:45 AM	
50-53	6:30 AM	
54-57	6:15 AM	
58-61	6:00 AM	
62-65	5:45 AM	
66-68	5:30 AM	
69-72	5:15 AM	
73-76	5:00 AM	

If you usually sleep longer than 7 hours per night, you will need to wake up somewhat earlier than normal to achieve the effect – but you should feel better for doing that. Some people compensate by going to bed earlier, while others feel fine with shorter sleep. If you usually sleep less than 7 hours per night you will be able to maintain your current wake-up time. If you find yourself automatically waking up more than 30 minutes before your session start time, you should try moving the session later. Avoid taking sessions earlier than recommended, but if you happen to oversleep your alarm clock, it is better to take the session late than to skip it.

Our recommended light schedule for evening types – say, 8:00 AM (08:00 h) for a morningnesseveningness score of 30 - may make it difficult to get to work on time, yet taking the light earlier may not be helpful. Once you have noted improvement at the recommended hour, however, you can begin inching the light therapy session earlier by 15 minutes per day, enabling your internal clock to synchronize with your desired sleep-wake cycle and work schedule.

The personalized advice we give you here is based on a large clinical trial of patients with seasonal affective disorder (SAD) at Columbia University Medical Center in New York. Patients who took the light too late in the morning experienced only half the improvement of those who took it approximately at the times indicated. These guidelines are not only for SAD, but are also helpful in treatment of nonseasonal depression, for reducing insomnia at bedtime, and for reducing the urge to oversleep in the morning.

Our advice serves only as a *general guideline* for new users of light therapy. There are many individual factors that might call for a different schedule or dose (intensity, duration) of light. Any person with clinical depression should proceed with light therapy only under clinical guidance.

Reference: Terman M, Terman JS. Light therapy for seasonal and nonseasonal depression: efficacy, protocol, safety, and side effects. CNS Spectrums, 2005;10:647-663. (Downloadable at www.cet.org)

Copyright © 2008, Center for Environmental Therapeutics, www.cet.org. All rights reserved. This material may be copied without permission only for personal use. Use or distribution by commercial parties is prohibited.