SIGNALSLEEP SCREENING TOOL

Validated screening questionnaires for sleep disorder assessment in clinical practice

Epworth Sleepiness Scale (ESS)

Purpose: Measures daytime sleepiness

Scoring: 0-24 (higher scores indicate more daytime sleepiness)

Interpretation:

- 0-5: Lower normal daytime sleepiness
- 6-10: Higher normal daytime sleepiness
- 11-12: Mild excessive daytime sleepiness
- 13-15: Moderate excessive daytime sleepiness
- 16-24: Severe excessive daytime sleepiness

Instructions: How likely are you to doze off or fall asleep in the following situations?

Use the scale below for each situation:

- 0 = Would never doze
- 1 = Slight chance of dozing
- 2 = Moderate chance of dozing
- 3 = High chance of dozing

1. Sitting and reading

2. Watching TV

3. Sitting, inactive in a public place

4. As a passenger in a car for an hour

5. Lying down to rest in the afternoon

6. Sitting and talking to someone

7. Sitting quietly after a lunch without alcohol

8. In a car, stopped in traffic

Total Score

Reference: Johns MW. A new method for measuring daytime sleepiness: the Epworth sleepiness scale. Sleep. 1991;14(6):540-545.

STOP-BANG Questionnaire

Purpose: Screens for Obstructive Sleep Apnea (OSA)

Scoring: 0–8 (higher scores indicate higher risk)

- 0–2: Low risk
- 3–4: Intermediate risk
- 5–8: High risk

S - Do you SNORE loudly?

◯ Yes   ◯ No

T - Do you often feel TIRED during daytime?

◯ Yes   ◯ No

O - Has anyone OBSERVED you stop breathing?

◯ Yes   ◯ No

P - Do you have high blood PRESSURE?

◯ Yes   ◯ No

B - Is your BMI more than 35 kg/m²?

◯ Yes   ◯ No

A - Are you over 50 years old?

◯ Yes   ◯ No

N - NECK circumference > 16 inches?

◯ Yes   ◯ No

G - GENDER: Male?

◯ Yes   ◯ No

Total Score

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Reference: Chung F, et al. STOP-Bang Questionnaire: A Practical Approach to Screen for Obstructive Sleep Apnea. Chest. 2016;149(3):631-638.

Insomnia Severity Index (ISI)

Purpose: Assesses the nature, severity, and impact of insomnia

Scoring: 0–28 (higher scores indicate more severe insomnia)

- 0–7: No clinically significant insomnia
- 8–14: Subthreshold insomnia
- 15–21: Clinical insomnia (moderate severity)
- 22–28: Clinical insomnia (severe)

1a. Difficulty falling asleep

○ 0 - None   ○ 1 - Mild   ○ 2 - Moderate   ○ 3 - Severe   ○ 4 - Very Severe

1b. Difficulty staying asleep

○ 0 - None   ○ 1 - Mild   ○ 2 - Moderate   ○ 3 - Severe   ○ 4 - Very Severe

1c. Waking up too early

○ 0 - None   ○ 1 - Mild   ○ 2 - Moderate   ○ 3 - Severe   ○ 4 - Very Severe

2. Satisfaction with current sleep pattern

○ 0 - Very Satisfied   ○ 1 - Satisfied   ○ 2 - Moderately Satisfied   ○ 3 - Dissatisfied
○ 4 - Very Dissatisfied

3. Interference with daily functioning

○ 0 - Not at all   ○ 1 - A Little   ○ 2 - Somewhat   ○ 3 - Much   ○ 4 - Very Much

4. How noticeable is your sleep problem to others?

○ 0 - Not at all   ○ 1 - A Little   ○ 2 - Somewhat   ○ 3 - Much   ○ 4 - Very Much

5. How worried/distressed are you about your sleep?

○ 0 - Not at all   ○ 1 - A Little   ○ 2 - Somewhat   ○ 3 - Much   ○ 4 - Very Much

Total Score:

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Reference: Morin CM, et al. The Insomnia Severity Index: Sleep. 2011;34(5):601–608.

Berlin Questionnaire

Purpose: Identifies risk factors for sleep apnea

Scoring: 3 categories – high risk if 2 or more are positive

- High Risk: 2–3 positive categories
- Low Risk: 0–1 positive categories

Category 1

1. Do you snore?

○ Yes   ○ No   ○ Don't know

2. If you snore, how loud is it?

○ Slightly louder than breathing
○ As loud as talking
○ Louder than talking
○ Very loud – heard in adjacent rooms

3. How often do you snore?

○ Nearly every day
○ 3–4 times a week
○ 1–2 times a week
○ 1–2 times a month
○ Never or nearly never

4. Has your snoring ever bothered other people?

○ Yes   ○ No

5. Has anyone noticed you quit breathing during sleep?

○ Nearly every day
○ 3–4 times a week
○ 1–2 times a week
○ 1–2 times a month
○ Never or nearly never

Category 2

6. How often do you feel tired or fatigued after sleep?

○ Nearly every day
○ 3–4 times a week
○ 1–2 times a week
○ 1–2 times a month
○ Never or nearly never

7. During the day, do you feel tired/fatigued or not up to par?

○ Nearly every day
○ 3–4 times a week
○ 1–2 times a week
○ 1–2 times a month
○ Never or nearly never

8. Have you ever nodded off or fallen asleep while driving?

○ Yes   ○ No

9. If yes, how often does it occur?

○ Nearly every day
○ 3–4 times a week
○ 1–2 times a week
○ 1–2 times a month
○ Never or nearly never

Category 3

10. Do you have high blood pressure?

○ Yes   ○ No   ○ Don't know

11. BMI > 30 kg/m²?

○ Yes   ○ No

Reference: Netzer NC, et al. Using the Berlin Questionnaire to identify patients at risk for the sleep apnea syndrome. Ann Intern Med. 1999;131(7):485-491.

International Restless Legs Syndrome Study Group Rating Scale (IRLS)

Purpose: Assesses severity of Restless Legs Syndrome (RLS) symptoms

Scoring: 0–40 (higher scores indicate more severe symptoms)

- 0: None
- 1–10: Mild
- 11–20: Moderate
- 21–30: Severe
- 31–40: Very severe

1. How would you rate the RLS discomfort in your legs or arms?

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

2. How would you rate the need to move around because of your RLS symptoms?

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

3. How much relief of your RLS discomfort do you get from moving?

○ Complete relief (0)   ○ Almost complete (1)   ○ Moderate relief (2)   ○ Slight relief (3)   ○ No relief (4)

4. How severe is your sleep disturbance due to RLS?

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

5. How severe is your tiredness or sleepiness during the day?

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

6. How severe is your RLS overall?

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

7. How often do you get RLS symptoms?

○ Never (0)   ○ Occasionally (1)   ○ Sometimes (2)   ○ Often (3)   ○ Very often (4)

8. How severe are your RLS symptoms on an average day?

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

9. Impact of RLS symptoms on your ability to carry out daily affairs:

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

10. Mood disturbance due to your RLS symptoms:

○ None (0)   ○ Mild (1)   ○ Moderate (2)   ○ Severe (3)   ○ Very severe (4)

Total Score:

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Reference: Walters AS, et al. Validation of the IRLS. Sleep Med. 2003;4(2):121–132.

Pittsburgh Sleep Quality Index (PSQI)

Purpose: Measures sleep quality and disturbances over a one-month period

Scoring: 0–21 (higher scores indicate worse sleep quality)

- ≤5: Good sleep quality
- >5: Poor sleep quality

1. Subjective sleep quality

○ 0 - Very good
○ 1 - Fairly good
○ 2 - Fairly bad
○ 3 - Very bad

2. Sleep latency (time to fall asleep)

○ 0 - ≤15 mins
○ 1 - 16–30 mins
○ 2 - 31–60 mins
○ 3 - >60 mins

3. Sleep duration

○ 0 - ≥7 hrs

○ 1 - 6–7 hrs
○ 2 - 5–6 hrs
○ 3 - <5 hrs

4. Habitual sleep efficiency

○ 0 - ≥85%
○ 1 - 75–84%
○ 2 - 65–74%
○ 3 - <65%

5. Sleep disturbances

○ 0 - Not during the past month
○ 1 - Less than once a week
○ 2 - Once or twice a week
○ 3 - Three or more times a week

6. Use of sleeping medication

○ 0 - Not during the past month
○ 1 - Less than once a week
○ 2 - Once or twice a week
○ 3 - Three or more times a week

7. Daytime dysfunction

○ 0 - No problem
○ 1 - Slight
○ 2 - Moderate
○ 3 - Severe

Global Score:

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Reference: Buysse DJ, et al. The Pittsburgh Sleep Quality Index. Psychiatry Res. 1989;28(2):193–213.

Morningness-Eveningness Questionnaire (MEQ)

Purpose: Determines chronotype (morning or evening preference)

Scoring: 16–86 (higher score = more morning preference)

- 16–30: Definite evening type
- 31–41: Moderate evening type
- 42–58: Intermediate type
- 59–69: Moderate morning type
- 70–86: Definite morning type

Answer all 19 questions. Each answer has a point value.

1. What time would you get up if you were entirely free to plan your day?

Select score ⌄

2. What time would you go to bed if you were entirely free to plan your evening?

Select score ⌄

Total Score:

Reference: Horne JA, Östberg O. Int J Chronobiol. 1976;4(2):97–110.

Usage Guidelines

1. These screening tools should be used as part of a comprehensive clinical evaluation
2. Positive screens require follow-up assessment and should not be used alone for diagnosis
3. Consider patient literacy and language needs when administering questionnaires
4. Electronic versions of these tools can be integrated into electronic health records
5. Regular rescreening is recommended for high-risk patients or those with persistent symptoms