

Sleep disturbance and menopause

Key points

- Disturbed sleep is a common complaint during the peri-menopause and after menopause.
- Various factors are implicated in the sleep disturbance associated with menopause.
- Management may include medications as well as lifestyle and behaviour modification.

Many women complain of disturbed sleep during the peri-menopause and after menopause. Complaints about poor sleep include difficulty falling and staying asleep, coupled with early morning and nocturnal awakenings ⁽¹⁾.

Sleep duration of less than seven hours a night has been associated with increased mortality ⁽²⁾, as well as linked to cardiovascular disease, obesity, mood disorders and diabetes ^(3, 4).

Contributing factors

- These include ⁽¹⁾
 - Changing hormone levels (hormones playing a role in sleep include growth hormone, prolactin, cortisol and melatonin)
 - Vasomotor symptoms (sweating and flushing), mood disorders (depression and anxiety)
 - Abnormalities of the circadian rhythm
 - Co-morbid conditions (snoring, airway obstruction, restless legs syndrome, periodic limb movement disorder, musculoskeletal pain and fibromyalgia)
 - Exacerbation of primary insomnia
 - Lifestyle factors (poor sleep hygiene, irregular schedules, caffeine, alcohol, snoring partner).
- It has been noted that insomnia is more common in women than in men, with 25% of women between the ages of 50- and 64-years having sleep difficulties. Sleep difficulties are more common in post-menopausal than in pre-menopausal women, and more severe in those experiencing a surgical menopause ⁽⁴⁾.

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Investigation

- Take a thorough history, including the type of sleep disturbances, co-morbid conditions, contributing factors, medications and impact on quality of life ⁽¹⁾.
- The Pittsburgh Sleep Quality Index ⁽⁵⁾ (measures sleep quality) and Epworth Sleepiness Score ⁽⁶⁾ (assesses the degree of sleepiness) may be useful tools. The STOP Bang questionnaire ⁽⁷⁾ is a useful screening questionnaire for snoring and obstructive sleep apnoea.
- Self-reported questionnaires (a sleep diary to assess issues related to sleep hygiene, duration of sleep and circadian rhythm), may provide information regarding perceived sleep quality. However, there are discrepancies between the objective and subjective measures, putting the role of laboratory assessments into question ⁽¹⁾.
- Objective assessment measures of sleep disturbance may include ⁽¹⁾:
 - Wrist actigraphy (to assess sleeping patterns and awakenings on consecutive nights and to provide information on certain sleep disorders, including shift work disorder). This may also be used to assess the response to therapy.
- Tests available during a specialist sleep consultation may include ⁽¹⁾:
 - Overnight polysomnography (PSG) (to assess for breathing disorders, movement and circadian rhythm disorders).
 - Continuous EEG recording will assess the various sleep stages.
 - Respiratory monitoring and leg EMG (to assess disordered breathing or periodic leg movement disorder).
 - Multiple Sleep Latency Tests (MSLT) is a specialised test measuring the time taken to fall asleep over 4 nap opportunities during the day in a controlled laboratory setting. It is a useful test for the evaluation of patients describing excessive daytime sleepiness in the absence of causes such as sleep apnoea, sleep loss or certain medication usage.

Management

- Formulating a strategy is dependent on a thorough investigation and evaluation of all contributing factors ⁽¹⁾.
- Strategies may include medications and lifestyle and behavioural modification ⁽¹⁾. (Please refer to AMS Information Sheet [Lifestyle and behavioural modifications for menopausal symptoms](#)).
- Lifestyle modification e.g. regular schedules, sleep hygiene, elimination of caffeine and alcohol, appropriate and comfortable bedding and temperatures as well as sleep hygiene should be employed ⁽¹⁾.
- The use of oestrogen, alone or in combination with a progestogen, has been shown to improve the subjective quality of sleep ⁽⁸⁻¹¹⁾. Women with hot flushes treated with menopausal hormone therapy (MHT) show a marked improvement in sleep quality ⁽⁴⁾. The newer body-identical micronised progesterone may cause

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somnolence. For this reason it is suggested to be taken at night and may therefore also help improve sleep. (Please refer to AMS information sheets [Oestrogen only therapy](#) and [Combined Menopausal Hormone Therapy](#)).

- Hypnotics should not be used in situations other than for acute sleep problems because of their side effects, tolerance and withdrawal issues ⁽¹⁾.
- The serotonin modulating antidepressants have been shown to improve hot flushes, depression and insomnia ^(12, 13). (Please refer to AMS Information Sheet [Mood problems at menopause](#)).
- Some SSRIs have useful sedative properties as do Low dose tricyclic antidepressants (TCAs) which may assist in alleviating insomnia ^(14, 15). As with the use of hypnotics their use should be carefully monitored and the side effect profile needs to be taken into consideration.
- A fixed sleep-wake cycle is important to sleep quality. Endogenous melatonin, which declines with age, is an important factor in the maintenance of this cycle ^(16, 17), while exposure to light helps maintain a state of wakefulness ⁽¹⁾. The use of supplemental melatonin in rapid release formulations (eg crushing the prescription forms of modified release melatonin) and light therapy (both at the appropriate time of day) have been shown to improve the circadian rhythm ^(17, 18). In particular, morning light, which can be combined with exercise such as walking, can be helpful in consolidating night-time sleep and reducing morning sleep inertia ⁽¹⁹⁾. The correct timing of these interventions is important and may require specialist input ⁽¹⁹⁾.
- Cognitive Behavioural Therapy, to include stimulus control and sleep restriction therapies have shown improvement in sleep ⁽¹⁾. These approaches are shown to be equally efficacious to pharmacotherapy with longer term sustainability ⁽²⁰⁾. Cognitive therapies alone in the absence of behavioural techniques (stimulus control therapy and sleep restriction) are not as efficacious as the combination.

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