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British Menopause Society

# Managing sleep disturbance during the menopause transition

## Key points

**Prevalence and impact:**

- Sleep disturbance is common during menopause, with increased prevalence of sleep disorders such as sleep-disordered breathing (SDB), restless legs syndrome (RLS) and chronic insomnia.
- Untreated sleep issues can exacerbate menopause symptoms, reduce quality of life and increase cardiovascular risk.

**Assessment and screening:**

- Screen for underlying sleep disorders, such as snoring, apnoea, and restless legs, when evaluating sleep problems. Investigate, refer or treat these conditions as per specific guidelines.
- Consider menopause-related contributors to sleep disturbances, including vasomotor symptoms, mood changes, musculoskeletal pain or nocturia, and tailor treatment accordingly.

**Treatment approaches:**

***Hormonal options***

- Hormone Replacement Therapy (HRT) can improve sleep both directly and indirectly by addressing symptoms like vasomotor disturbances.
- Individualise HRT formulation choice. Evidence suggests micronised progesterone may have superior sleep benefits over other progestogens.

***Non-hormonal options***

- Explore non-hormonal treatments that alleviate menopause symptoms, potentially improving sleep.
- Consider psychological therapies like menopause-specific cognitive behavioural therapy (CBT), particularly for sleep issues linked to vasomotor symptoms.

**Chronic insomnia:**

- If menopause symptom management does not resolve sleep problems, assess for chronic insomnia—characterised by difficulty initiating or maintaining sleep, early waking, and daytime dysfunction.
- Offer evidence-based treatments such as CBT for insomnia (CBT-I) and/or appropriate medications.

**Multifactorial causes:**

- Be aware that sleep disturbances during menopause often have multiple contributing factors, requiring a comprehensive, multidisciplinary approach to management.

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## Background

The onset of the perimenopause coincides with an increase in sleep disturbances for women, which can persist across the menopause transition, and beyond. 40-56% menopausal women report difficulty sleeping which is one of the most common symptoms of menopause.[1]

Sufficient quality and quantity of sleep is important for optimal health. Sleep symptoms are associated with an increase in severity of other menopause related symptoms and reduced quality of life, as well as an increase in prevalence of affective disorders, cognitive dysfunction, migraine, sexual dysfunction and an increased risk of cardiovascular disease.[1–7] Optimising sleep should be seen as a priority in menopausal women.

There is a lack of clear guidance for clinicians in the management of sleep symptoms; the causes are often multifactorial, and the treatment may involve multiple different pathways. This Tool for Clinicians aims to bring together evidence supporting the diagnosis and management of sleep symptoms in menopause, as well as sleep specific guidelines to provide a detailed review alongside practical guidance.

### Sleep requirements during menopause

Sleep needs vary amongst individuals. Although the need for sleep does not decrease with age, the ability to sleep can decrease.[8] There are no formal United Kingdom recommendations for quantity or quality of sleep. The American Academy of Sleep Medicine and the Sleep Research Society recommends sleeping more than 7 hours per night, on a regular basis, for adults age 18-60.[9] The American National Sleep Foundation recommends 7-9 hours per night for adults 18-64 (although 6 to 10 may be appropriate) and 7-8 hours for older adults (65 and older).[10]

These recommendations may seem unrealistic for many menopausal women and 50% of postmenopausal women who experience sleep difficulties sleep less than 6 hours per night.[11] In addition to quantity, the quality of sleep is also important. Good quality sleep should be refreshing, with few awakenings, and efficient, with little time spent awake after the onset of sleep.

### Sleep symptoms during the menopause transition

Women most commonly experience disorders of sleep continuity, with waking through the night, often associated with difficulty getting back to sleep.[12,13] There may also be delays in falling asleep at the beginning of the night and early morning awakening. In addition to the sleep symptoms presenting during the night, it is important to recognise any associated daytime dysfunction associated with these complaints, such as fatigue, daytime somnolence and depressed mood.[14]

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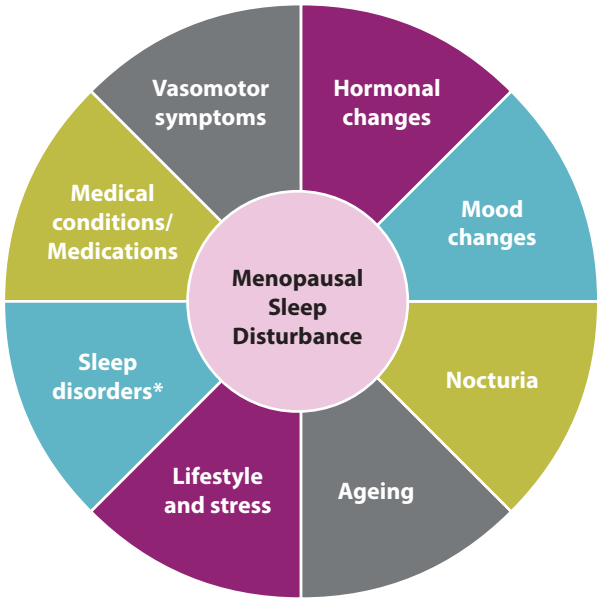
Restless legs, snoring and sleep disordered breathing (SDB) increase at the time of menopause and it is important to identify symptoms suggestive of these conditions as they are associated with significant morbidity and mortality.[15,16] Insomnia commonly develops during the menopause transition, and the symptoms can persist as a chronic condition.[6]

## Aetiology

There are a multitude of factors that can contribute to sleep disturbances during menopause, and these are outlined in **Figure 1**.

**Figure 1: Causes of Sleep Disurbance Across the Menopause Transition**




*
Chronic Insomnia (CI)
Sleep Disordered Breathing (SDB)
Restless Legs Syndrome (RLS)

### Vasomotor symptoms

Objective measurements, using polysomnography and skin conductance monitoring, have shown that hot flushes are strongly associated with increased awakenings. The awakenings can occur before, during or after a hot flush.[1] The extent of disruption is variable with some people able to quickly fall back to sleep, and others who experience extended episodes of wakefulness. It is important to assess and treat vasomotor symptoms as part of the management of menopausal sleep disturbance. Despite the clear impact of vasomotor symptoms, the full extent of sleep symptoms during menopause cannot be explained entirely by these.[17]

### Mood symptoms

Affective symptoms associated with menopause can also influence sleep. There is a bidirectional relationship between sleep and mental health and both depression and anxiety can precede poor sleep.[18] There is a two to four fold increase in depression during the menopause transition, with women experiencing poor sleep more likely to have depression.[18]

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### Other menopause symptoms

Other symptoms of menopause can contribute to sleep disturbance such as nocturia related to genitourinary symptoms of the menopause and musculoskeletal pain.[19,20] Musculoskeletal pain is likely to have multifactorial aetiology including ageing. Nocturia can also be a symptom of SDB, and this should be explored if there are other suggestive symptoms.[21]

### Hormonal changes and ageing

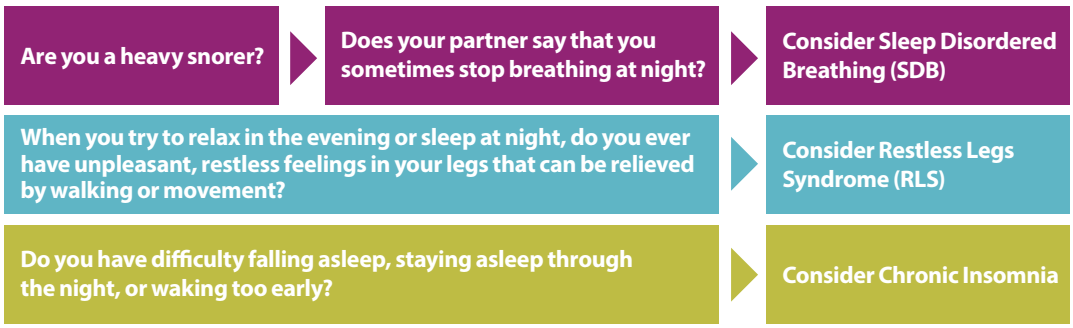
Menopause related hormonal changes are independently associated with sleep disruption, even in the absence of other symptoms[17]. Falling estrogen levels and rising follicle stimulating hormone (FSH) levels are associated with more awakenings and other negative sleep indicators. There is less evidence for the role of falling endogenous progesterone in relation to sleep disruption.[17]

Sleep quality decreases with age, mostly due to increased sleep fragmentation; sleep becomes less efficient, with more awakenings with advancing age. There is also a gradual shift in circadian rhythm seen with ageing, which may contribute to the earlier sleep and waking timings of some midlife women.[21,22]

### Sleep disorders

In addition to considering the influence of menopause physiology and symptoms, it is important to consider that a sleep disorder may underly the menopausal sleep disturbance. A summary of the diagnosis and management of these is included in **Appendix 1**.

**Figure 2: Screening Questions to Identity Common Sleep Disorders**




## Assessment

The appropriate management for an individual menopausal woman with sleep disturbance will depend on the cause of their sleep symptoms. As sleep disturbances are multifactorial, a thorough assessment is essential in order to provide effective management.

### Sleep history

Specific sleep symptoms may include nighttime symptoms (difficulty falling asleep, waking through the night, early morning waking, snoring, waking up gasping for breath, restless legs) and daytime symptoms (fatigue, somnolence, mood disturbance). Ask about the sleep/wake pattern over 24 hours and the impact of symptoms on functioning. Use screening questions (**Figure 2**) to identify symptoms of common sleep disorders.

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If there is snoring or apnoea, then assess for risk factors for SDB and consider the use of a screening questionnaire such as STOP-Bang.[21] If there are symptoms of restless legs, arrange appropriate investigation (see "Management"[23]).

If there are symptoms of insomnia, clinical judgement is needed to guide ongoing management towards either menopause symptom treatment or towards diagnosis and treatment of chronic insomnia. This distinction will depend on duration of symptoms, current or past treatment, history of previous insomnia and suspected contribution of menopause symptoms.

**Menopause symptoms**
Vasomotor, mood, musculoskeletal and genitourinary symptoms should be assessed in relation to sleep symptoms.

**Other medical conditions**
Consider conditions such as depression, anxiety, ADHD, chronic pain, thyroid disease, and gastroesophageal reflux disease, which may contribute to sleep disturbance. Optimising treatment for these conditions can help improve sleep. Additionally, review medications that may disrupt sleep, including corticosteroids, selective serotonin reuptake inhibitors (SSRIs), stimulants, and beta-blockers.

**Lifestyle factors**
Assess to what extent lifestyle may be playing a role in sleep problems. This may include the use of stimulants such as caffeine, the impact of stress, use of alcohol use and habits around sleep such routine, screen use and relaxation strategies.

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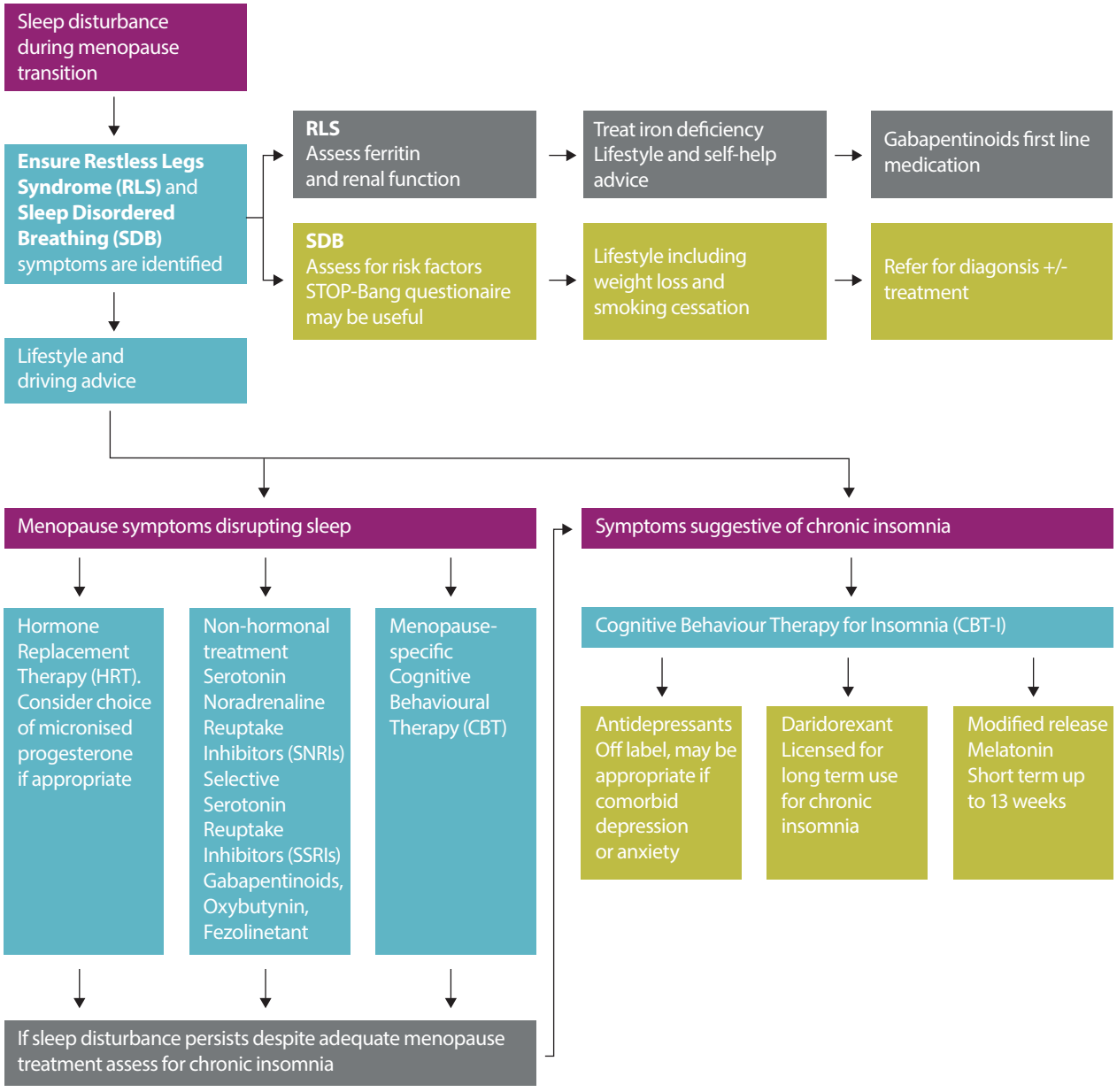
## Management

Appropriate management will depend on the cause of the symptoms. The flowchart in **Figure 3** summarises how to manage sleep disturbance during the menopause transition.

**Figure 3: Management Options for Sleep Disturbances in Menopause**

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## Lifestyle changes

Sleep hygiene comprises general information about how sleep is regulated and advice regarding lifestyle habits that can support healthy sleep. It is sensible to advise patients about sleep hygiene, however it is not usually sufficient on its own to treat sleep disorders.[24,25] There are sleep hygiene resources available on the NHS "Every Mind Matters" website.[26] To be most beneficial, the advice should be personalised and useful recommendations are summarised in **Figure 4**.[27]

**Figure 4: Sleep Hygiene Advice**

- Avoid daytime napping
- Limit stimulants (such as caffeine and nicotine)
- Be cautious with alcohol use (it affects sleep negatively)
- Relaxation training (such as progressive muscle relaxation)
- Optimise sleep environment (a cool, dark, quiet room)
- Keep regular sleep schedules
- Avoid using bedroom for non-sleep behaviours (such as eating or watching TV)
- Take regular daytime exercise (ideally avoid just before bedtime)
- Avoid eating too close to bedtime
- Weight loss and smoking cessation (particularly when Sleep Disordered Breathing (SDB) is suspected)

## Driving advice

The Driver and Vehicle Licensing Agency (DVLA) has issued guidance *Assessing fitness to drive: a guide for medical professionals*. Patients should be advised not to drive if they feel sleepy and the DVLA must be informed if excessive sleepiness is having, or is likely to have, an adverse effect on driving.[28]

## Hormone replacement therapy

Hormone replacement therapy (HRT) can be effective in improving sleep quality during menopause.[15] The impact of HRT on sleep is in part due its effective treatment of vasomotor symptoms and in addition, via its impact on other symptoms such as low mood, anxiety and genitourinary symptoms of menopause.[29] HRT can also benefit sleep, independently of symptom control, via its action on replacement and stabilisation of sex steroid hormones.[30] HRT may, therefore, be an appropriate treatment for insomnia symptoms during menopause, in the absence of vasomotor or other symptoms, if there is a clear link to the menopause transition.

Both transdermal and oral estrogens have been shown to be effective in improving sleep. Small studies have suggested that transdermal 17-beta estradiol may have a minimal advantage over other types of estrogen and other delivery routes.[29,31] HRT formulation should be individualised dependent upon patient factors and preferences, and any estrogen that is acceptable to the patient and is effective for other menopause symptoms is a good choice to aid sleep symptoms.

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For women with an intact uterus, a progestogen is required in addition to estrogen to provide endometrial protection. When selecting a progestogen in the presence of sleep symptoms there is evidence to suggest that micronised progesterone (MP) may be superior. This exogenous progesterone is known to produce sedative and hypnotic effects, although there is a paucity of published evidence on its impact on menopause related sleep symptoms.[32] Its benefit is mediated through progesterone's conversion to the metabolite allopregnanolone, which is a potent γ-aminobutyric acid type A receptor agonist, and may lead to improved sleep.[33,34] This effect is not seen with all progestogens. The sleep promoting effect of micronised progesterone is predominantly seen with oral use. There is minimal conversion of progesterone to allopregnanolone when it is delivered vaginally (due to differing enzymes in the vaginal microbiome) and therefore it is unlikely to offer significant sleep benefits when delivered via this route.[35]

The licensed indication of micronised progesterone is for endometrial protection. If this is not required (e.g. post hysterectomy, or when a 52 mg levonorgestrel releasing intrauterine device (52 mg LNG-IUD) is in situ) the use of progesterone to aid sleep symptoms is outside of product license. Any sleep benefit needs to be weighed against the potential increase in breast cancer risk with combined HRT, on an individual basis. There is no available data to quantify the risk of micronised progesterone use in addition to a 52 mg LNG-IUD, when micronised progesterone is not required for endometrial protection.

**Non-hormonal treatment options**

When sleep difficulties occur in association with menopausal symptoms, it is important to offer symptomatic treatment, which can be hormonal or non-hormonal. For many women, their sleep will improve with effective treatment of their symptoms, irrespective of the treatment used. When HRT is contraindicated, not desired or not tolerated, non-hormonal options should be considered to treat vasomotor symptoms, including off label use of selective serotonin noradrenaline reuptake inhibitors (SNRIs), SSRIs or gabapentinoids.[36] SSRIs and SNRIs may cause sleep disruption when starting treatment, although this tends to settle with time.

The hypothalamic KNDy neurons (kisspeptin, neurokinin B and dynorphin) play an important role in thermoregulation, and altered signaling during the menopause transition may contribute to sleep disturbance.[37] Newer non-hormonal treatment options include fezolinetant, a selective neurokinin-3 (NK3) receptor antagonist, and elinzanetant, a dual NK1 and NK3 receptor antagonist. Both agents modulate neuronal activity involved in thermoregulation and are licensed for the treatment of moderate to severe vasomotor symptoms. Improvements in subjective measures of sleep disturbance have been reported with both agents.[38, 39]

Where urinary symptoms disrupt sleep, behavioural modifications such as reducing evening fluid intake are important, as well as ensuring adequate treatment of genitourinary symptoms. For musculoskeletal symptoms consider analgesia, physical therapy or systemic hormone therapy as indicated.

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**Psychological therapies**

A variety of psychological therapies have been found to be effective for menopausal sleep disturbance. The National Institute for Health and Care Excellence (NICE) recommends that menopause-specific Cognitive Behavioural Therapy (CBT) should be considered as a treatment option for sleep disturbance including night-time awakening, in association with vasomotor symptoms.[40] This can be in addition to other management options (including HRT) or as an alternative to HRT, if contraindicated or not desired.

A recent systematic review found evidence that cognitive behavioural therapies and clinical hypnosis for menopausal symptoms had positive effects on sleep among women with significant vasomotor symptoms.[41] There was also preliminary support for mindfulness-based stress reduction related interventions. These were effective when delivered in groups or as self-help strategies, and were also effective for women in menopause following breast cancer, where sleep symptoms can be particularly severe.[41]

An estimated 26% of perimenopausal women meet the criteria for a diagnosis of chronic insomnia.[11] Where chronic insomnia has been diagnosed, the use of specific CBT for insomnia (CBT-I) is recommended instead of CBT for menopause or mood symptoms.[24] There is evidence of efficacy of CBT-I in women during the menopause transition, in improving daytime function, work performance and quality of life and in outcome measures such as fatigue, energy and sleepiness.[42] CBT-I has been shown to be effective, even in the presence of vasomotor symptoms. However, the availability of CBT-I is lacking with a shortage of trained clinicians, and few referral pathways from primary care. These challenges have led to the development of internet-based CBT-I which is now widely available and has been shown to have good treatment efficacy (albeit lower than for face-to face CBT-I).[14] Various apps have been developed which vary in cost and availability throughout the United Kingdom, examples being Sleepio, Sleepstation and Sleepful.

Much of the research into psychological treatments for menopause has included predominantly white, well-educated women, and future research needs to include more diversity.

**Management of persistent sleep symptoms**

If sleep problems persist and menopause symptoms are thought to be the cause, ensure that hormonal or non-hormonal treatments are optimised in terms of dose and formulation. Revisit the initial assessment of sleep and screen for sleep disorders such as SDB or RLS, with further investigation as indicated (**Figure 3**).

If the persistent symptoms relate to difficulty falling asleep, staying asleep or waking too early, then it may be appropriate to make a diagnosis of chronic insomnia. Chronic insomnia is diagnosed when these symptoms persist for 3 nights of the week for 3 months or more, and where there is associated daytime dysfunction.[43] Chronic insomnia is thought to develop from an episode of short lived or "acute" sleep disruption, following some kind of trigger. This trigger, or 'precipitating factor' could be a stressful event, significant life change or disruptive physical symptoms (such as menopausal symptoms). Other cognitive, behavioral or physiological changes can lead to the formation of a 'habit' of poor sleep, and these 'perpetuating factors' are what induce the chronic condition of insomnia (**Appendix 1**).

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**Referral**

If SDB is suspected, refer to a sleep service for assessment (in line with NICE guidelines).[21] If other sleep symptoms persist, despite evidence-based treatment, and are affecting daytime functioning, then consider referral to a sleep clinic or specialist with expertise in sleep.

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## APPENDIX 1: Common sleep disorders during the menopause transition

Chronic insomnia, restless legs syndrome (RLS) and sleep disordered breathing (SDB) are summarised below. These conditions are more common in midlife women with sleep complaints than in premenopausal women, and they are associated with significant morbidity and mortality.[16] There are a range of other less prevalent sleep disorders, which do not have a strong association with menopause or advancing age, including parasomnias and narcolepsy, which are outlined in the International Classification of Sleep Disorders.[44]

### Chronic insomnia

Chronic insomnia ("Insomnia Disorder", DSM-V)[45] is persistent difficulty with getting to sleep, maintaining sleep, or quality of sleep, which occurs despite adequate opportunity and circumstances for sleep, and results in impaired daytime functioning.[43] Daytime symptoms typically include fatigue, depressed mood, irritability, general malaise, and cognitive impairment.

Chronic insomnia usually develops from an episode of short lived or "acute" sleep disruption in people with a vulnerability to sleep problems. Menopause can be both a trigger for insomnia, and ongoing symptoms can perpetuate the condition. Physiological changes, maladaptive behaviours and cognitions are thought to be involved in the development of chronic insomnia.

For example, people may change their sleep timings and start spending much longer in bed in the hope of getting sleep. These changes can lead to a state of conditioned arousal - where an association is made between bed and alertness, which becomes a habitual response. Another example may be the presence of heightened anxiety about sleep, leading to a physiological "hyperarousal" that then makes it harder to achieve good sleep. When symptomatic menopause treatment does not resolve insomnia symptoms, it is likely that there are other perpetuating factors at play, and this warrants treatment specifically targeted to insomnia such as CBT-I or medications as appropriate.

**Prevalence**

Chronic Insomnia is more common in females than males and increases over the life span. It has been reported as the most common sleep disorder during the menopause transition. An estimated 26% of perimenopausal women meet the criteria for a diagnosis of chronic insomnia.[11]

**Risk Factors**

A past history of insomnia or other sleep disorders including RLS, SDB, high stress, depression, anxiety, family history of insomnia, shift work.

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**Diagnosis**
Insomnia is diagnosed clinically if, despite adequate time and opportunity to sleep, there is difficulty in getting to sleep, difficulty maintaining sleep, or non-restorative sleep that results in impaired daytime functioning or wellbeing. Chronic insomnia can be diagnosed if symptoms occur on at least 3 nights per week for 3 months or more.[14,24] A questionnaire, such as the Insomnia Severity Index, may be useful to monitor treatment response.

**Investigations**
Investigations are only indicated if another sleep disorder is suspected or if there is concern regarding a comorbid condition such as thyroid dysfunction. Daytime sleepiness, unlike fatigue, is not a cardinal sign of insomnia. The presence of significant daytime sleepiness may be a sign of another sleep disorder, such as SDB.

**Management**
The first line treatment recommended by the National Institute for Health and Care Excellence (NICE) and all international guidelines is Cognitive Behavioral Therapy for Insomnia (CBT-I).[14,43] CBT-I is a structured multicomponent treatment program, that can be carried out using books or digital apps, as well as groups or individual treatment. There is evidence of efficacy of CBT-I in women during the menopause transition, in improving daytime function, work performance and quality of life, including measures such as fatigue, energy and sleepiness.[42] Treatment commonly takes 6-8 weeks. If CBT-I is not effective or is unsuitable then pharmacological options can be considered.

**Melatonin** is a hormone synthesized in the pineal gland and is important in the regulation of the circadian rhythm. Melatonin production gradually reduces with age and melatonin has been proposed as a treatment option for menopausal insomnia.[46] In the UK, the prescription of melatonin is regulated, and a prolonged-release melatonin formulation Circadin 2 mg is licensed for the short-term treatment of chronic insomnia. NICE guidelines advise that this can be used for chronic insomnia for patients over 55 and for daily use up to 13 weeks. It has a mild hypnotic effect, which can improve sleep onset, although there is lack of evidence for improvement of sleep maintenance. It has a good safety profile and few side effects.[12,47]

**Daridorexant** is a dual orexin receptor antagonist that is approved by NICE to treat chronic insomnia.[48] Orexin is a neurotransmitter associated with wakefulness, and a large phase 3 study program, has demonstrated that antagonising the orexin receptors, using daridorexant can improve objective and subjective sleep measures, as well as daytime functioning, with no evidence of dependence or rebound symptoms and no increase in daytime somnolence[49].

**Daridorexant** is prescribed as follows: 50 mg, 30 minutes before bedtime, for up to 3 months in the first instance, with regular review if use is ongoing.[47] A 25 mg dose may be appropriate where clinically indicated.

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**Antidepressants** In current practice, certain antidepressants are commonly used (outside of license) for their sedative properties. These can sometimes be effective at lower doses than their antidepressant dose. There is a lack of evidence to support this approach, however where there are comorbid mood or anxiety symptoms, these may be a pragmatic approach. There is more evidence for a beneficial effect with Mirtazepine and Trazodone.[47] In contrast, some antidepressants such as SSRIs have the potential to disrupt sleep.

**Hypnotic agents** such as benzodiazepines, Z drugs e.g. zolpidem and antihistamines, are not recommended for use in chronic insomnia, except for short term use, or for acute exacerbations. There is deprescribing advice, available for patients who have used these medications long term.[50] For more details please see the NICE Clinical Knowledge Summary (CKS) on Insomnia.[24]

## Restless Legs Syndrome

Restless legs syndrome (RLS) is a neurological disorder characterised by an irresistible urge to move the limbs (usually the legs), accompanied by paraesthesia-like sensations, that may be described as creeping, crawling, tingling, cramping, or aching. Symptoms are typically worse in the evenings, are often associated with sleep disturbance, and are temporarily relieved by movement.

### Prevalence

In the UK, US, and Europe, the total prevalence of RLS is between 5–10%, with a slight female preponderance and increases post menopause, although estimates vary.

### Risk factors

These include iron deficiency, family history, pregnancy, some medications including antidepressants and dopamine blocking agents.

### Diagnosis

A clinical diagnosis is based on symptom report, with particular attention to frequency, severity, duration, and impact of symptoms.

### Investigations

Any woman with symptoms of restless legs syndrome should have a ferritin level checked, as iron deficiency is a common and reversible cause of the problem. It is also important to consider renal function as renal impairment can contribute to symptoms of RLS.

### Management

**Non pharmaceutical measures** Avoidance of alcohol, caffeine, cigarettes. Good sleep hygiene, moderate regular exercise, avoidance of overexertion, stress, or sleep deprivation, walking and other similar activities, hot baths, and leg massage before bedtime. Magnesium supplementation may be recommended anecdotally, but there is a lack of evidence to support this recommendation.

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**Iron treatment** Offer iron supplementation if ferritin <90 mg/L.

**Medication** If symptoms are seriously impairing sleep, daytime functioning or quality of life, despite self-help and lifestyle advice offer medication. Alpha-2-delta ligands such as pregabalin or gabapentin (off-label) are efficacious and the minimum effective dose is recommended first line.[23] Treatment is likely to be long term, but an annual drug holiday can be helpful to identify remission or easing of symptoms. Other treatment options include opioids, although the risk of dependence should be considered. Dopamine agonists were previously used first-line for RLS, but these are now used less commonly due to their association with augmentation (worsening of symptoms) and impulse control disorders.

For more details please see the NICE CKS on RLS.[23]

## Sleep Disordered Breathing

Sleep Disordered Breathing (SDB) refers to a wide spectrum of sleep-related conditions including increased resistance to airflow through the upper airway, heavy snoring, marked reduction in airflow (hypopnea), and complete cessation of breathing (obstructive sleep apnoea, OSA).

Symptoms suggestive of SDB include:

- Snoring
- Excessive daytime sleepiness and fatigue
- Witnessed breathing pauses (apnoea), gasping, or choking while sleeping
- Unrefreshing sleep

Other symptoms include:

- Morning headache (typically resolves within hours of waking)
- Frequent nocturnal awakenings or insomnia
- Nocturia
- Nocturnal gastro-oesophageal reflux disease (GORD)
- Cognitive dysfunction or memory impairment

SDB presents differently in females, who are more likely than men to experience morning headaches, mood disturbance, nightmares, daytime fatigue and insomnia.[51] Females are less likely to report snoring or witnessed apnoea.

### Prevalence

Prevalence increases during the menopause transition. This can be explained by ageing and changes in body habitus.[52] Changes in reproductive hormones may also play a role, as sex hormones contribute to upper airway stability. SDB is more common in males than females and is underdiagnosed in women.

### Risk Factors

Obesity, smoking, advancing age, family history, larger neck circumference, nasal congestion, alcohol use, polycystic ovarian syndrome, asthma, type 2 diabetes, hypertension and heart failure.

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**Diagnosis**

If there are symptoms suggestive of SDB, consider using a screening questionnaire, such as the STOP-Bang questionnaire, where usually a score of 5 or more is high risk for obstructive sleep apnoea (OSA), and a score of 3 or 4 may warrant further assessment. However, the STOP-Bang, and other screening tools, have not been validated specifically for use in women and may be less sensitive, due to the different clinical presentation of OSA in women compared to men[53]. The results may need different interpretation in women therefore if symptoms are suggestive of SDB or there is a raised STOP-Bang score, refer for assessment to a sleep clinic. Diagnosis is usually made via a sleep study (carried out at home or in a sleep lab).

**Management**

Treatments include the use of continuous positive airway pressure (CPAP), intra-oral devices, and/or surgery in selected individuals.[21] For more details, see NICE guidelines on Obstructive sleep Apnoea/Hypopnoea Syndrome.[21]

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UK Multidisciplinary Sleep Professionals

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*This BMS Tool for Clinicians will be updated when guidance changes and/or new data becomes available.*



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