

Sleep Changes in Pregnancy

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THE CASE

A 36-year-old healthy woman in her second trimester of pregnancy was referred for evaluation of sleep maintenance insomnia and daytime sleepiness for the last month (Epworth Sleepiness Scale score of 14 out of 24 points).

THE CHALLENGE

Sleep disturbances are common (46%) and underreported among pregnant women, and include changes in sleep architecture, quality, and duration, which are attributable to profound anatomical, physiological, and hormonal body changes experienced across gestation (Figure 1) (1, 2).

COMMON SLEEP DISORDERS TO SCREEN FOR

Obstructive Sleep Apnea

The prevalence of obstructive sleep apnea (OSA) in pregnancy is 3.6% in the first trimester and 8.3% in the third trimester. Higher prevalence (15–20%) is associated with preexisting obesity, hypertension, and older maternal age at pregnancy onset (3). The pathophysiologic mechanisms are upper-airway mucosal engorgement and decrease in Functional Residual Capacity. Because of sleep disturbances associated with physiologic changes across pregnancy, Epworth Sleepiness Scale and standard questionnaires (Berlin Questionnaire, STOP-BANG, which stands for snoring, tiredness, observed apnea, blood pressure, body mass index, age, neck circumference, and gender) may be of limited use as OSA-screening tools. OSA in pregnancy has been associated with hypertensive disorder of pregnancy, preeclampsia, and gestational diabetes, likely by sharing similar pathophysiologic pathways (endothelial dysfunction, hypoxemia, and sympathetic activation) and comorbidities (i.e., obesity), thereby predisposing to poor maternal and fetal outcomes (*see Box*) (4).

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Continuous positive airway pressure is the first-line therapy for OSA in pregnancy.

RESTLESS LEGS SYNDROME (WILLIS-EKBOM DISEASE)

Prevalence of pregnancy-associated restless legs syndrome (RLS) is increased (20%; 95% confidence interval, 16–24%) compared with the adult general population (5–10% idiopathic RLS) (5). The prevalence increases throughout pregnancy, peaking at 7–8 months of gestation, with improvement in the last month of pregnancy (4 wk before delivery), followed by symptom resolution for most by 1 month after delivery (5). The most common RLS risk factors are as follows:

- Family history of RLS.
- History of RLS in previous pregnancy.

Compared with pregnant women without RLS, those with RLS symptoms have low normal serum iron and folate, which may explain the increased prevalence (*see Box*).

Most patients can be managed successfully with education, reassurance, and iron supplementation if indicated. Pregnancy-associated RLS recurrence is high, and it may evolve into chronic idiopathic RLS over time.

ON THE FLY

- Poor sleep quality and quantity are highly prevalent in healthy pregnant women and are due to physiologic-anatomic changes which worsen across gestation.
- Although uncommon in healthy pregnant women, OSA prevalence increases in those with pre-existing risk factors such as obesity or hypertension.
- Untreated OSA in pregnancy is associated with higher risk of poor maternal and fetal outcomes, hypertensive disorder of pregnancy, preeclampsia and gestational diabetes.
- With lower serum Iron and Ferritin levels, pregnancy related RLS is highly prevalent, with most resolving 1 month postpartum.
- Pregnancy related RLS increases the risk of recurrent RLS in future pregnancies and the risk of developing chronic idiopathic RLS.

ON THE FLY

A collection of concise, mobile-friendly resources to help create quick teachable moments.

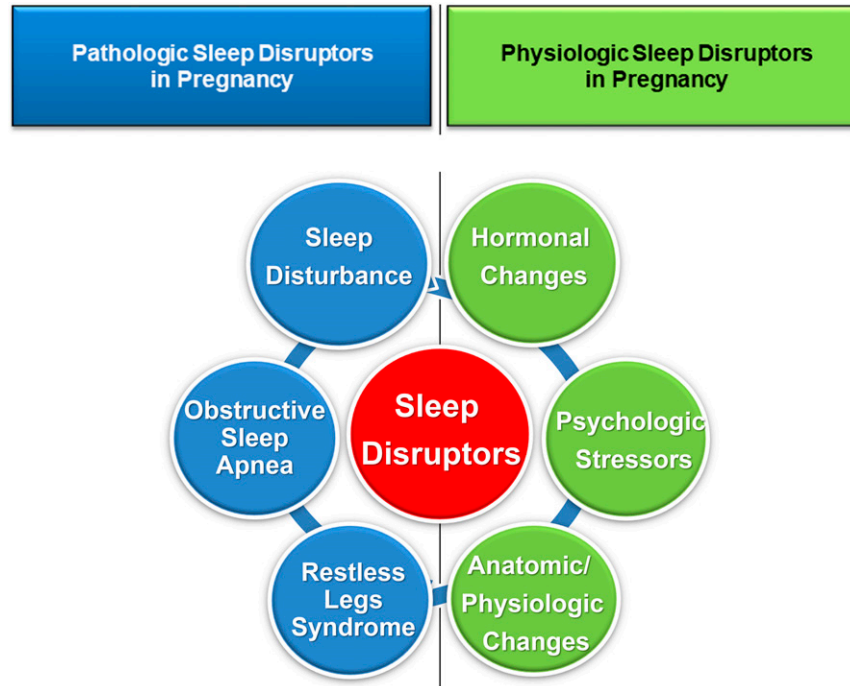


Figure 1. Sleep in pregnancy.

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