

Sleep Breathing Disorder (SBD) Definitions

Apnea – no movement of air and the volume of the lungs remains unchanged.

NO BREATHING - Prolonged apnea leads to severe lack of oxygen in the blood

Obstructive – Cannot Breathe Central – Will Not Breathe

Hypopnea – involves episodes of overly shallow breathing or an abnormally low respiratory rate. This differs from apnea in that there remains some flow of air.

Moderate to severe hypopnea, sleep is disturbed such that patients may get a full night's sleep but still not feel rested because they did not get the right kind of sleep. The disruption in breathing causes a drop in blood oxygen level, which may in turn disrupt the stages of sleep.

AHI (Apnea Hypopnea Index) = $\{(\# \text{ of Apneas}) + (\# \text{ of Hypopneas})\} / (\text{Sleep Hours})$

- 5-14.99 – Mild Sleep Apnea – Careful central apneas are included - Treatable
- 15-30 – Moderate Sleep Apnea – Recommend Medical, Possibly Treat, Waiver
- Over 30 – Severe Sleep Apnea – Medical Attention Required (CPAP Indicated)

RDI (Respiratory Disturbance Index) =

$\{(\# \text{ of Apneas}) + (\# \text{ of Hypopneas}) + (\# \text{ of RERAs})\} / (\text{Sleep Hours})$

Use same scale as above

RERAs – Respiratory Effort Related Arousals

NOTE: (RDI – AHI = Large) Oral Appliance Indicated

OSI (Oxygen Saturation Index)

Oxygen Desaturation – SPO2 4% Drop

RAI (Respiratory Arousal Index) = (AHI) – (# of Snoring Related EEG Arousals)

Arousals (at least 4 seconds to be significant)

- PLMS (Periodic Limb Movement while Sleeping) < 5 Normal
- Respiratory
- Spontaneous (EEG)
- Snore

SPO2 – Saturation level of oxygen in blood (between 90-99%)

Sleep Architecture –

Stage 1 – 5-10%

Stage 2 – 55-65%

Stage 3/4 – 5-20%

REM – 20%

Sleep Efficiency > 90% = Average

Latencies –

Stage 2 – 5 min REM – 90 min Fall Asleep – 20-30 min

BMI – Use online calculator (Weight (kg) / (Height m)²)

BMI > 25=overweight 25-29=pre-obesity >30=Obesity

Obesity Class I = 30-35 Class II = 35-40 Class III = >40

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