

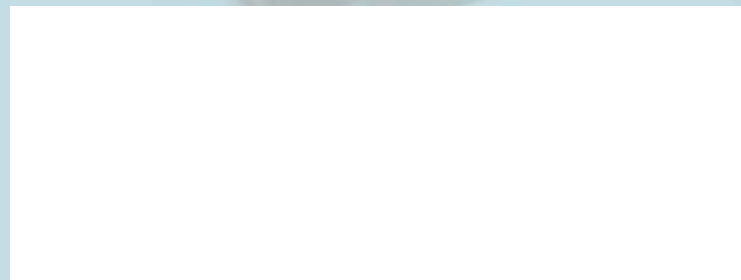
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**YOUR ROLE IS CRUCIAL!**

With your experience and support,  
together we can ensure better health outcomes  
among your patients with sleep apnea.

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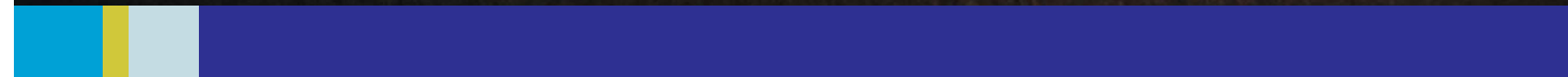


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**Hidden can be  
dangerous**



## 50% of diabetes patients suffer from obstructive sleep apnea (OSA) or some form of sleep disordered breathing<sup>1,2</sup>

But few are aware of sleep apnea and its serious consequences. Snoring is its most common symptom. The other symptoms & signs are

-  Excessive daytime sleepiness
-  Daytime fatigue
-  Overweight
-  Poor sleep/restless sleep
-  Morning headaches
-  Poor concentration
-  Depression/irritability

Left untreated, it can lead to uncontrolled sugar, insulin resistance; also result in serious consequences like driving accidents and even heart failure

\*Apnea Hypopnea Index - indicates the severity of OSA

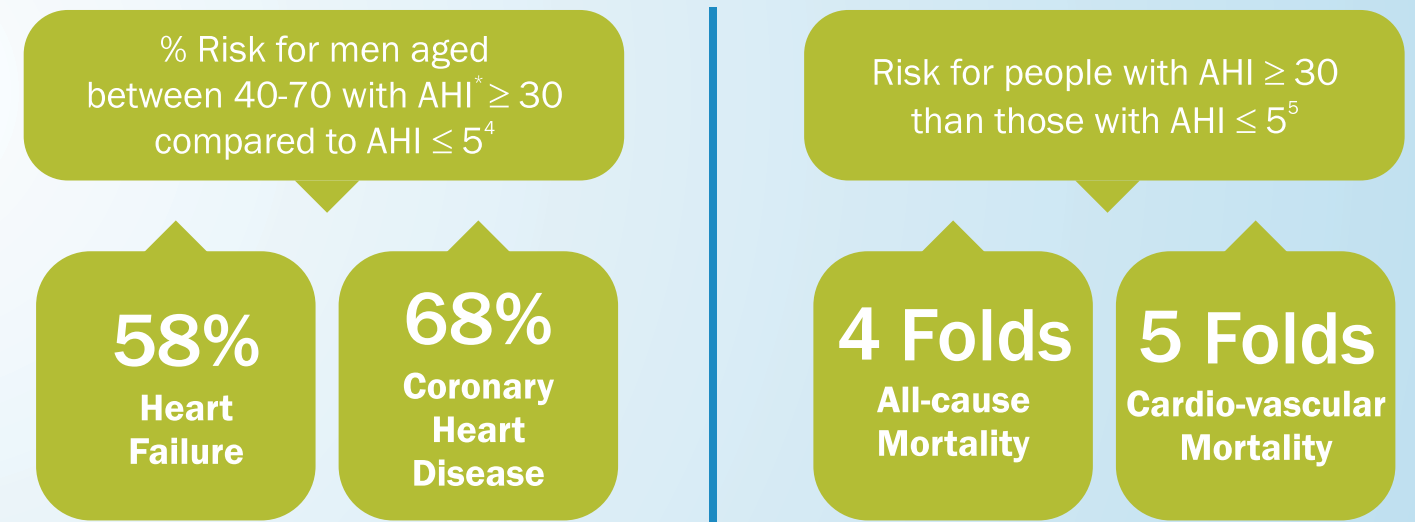
**References:**

1. Einhorn et al Endocr Pract 2007. 2. International Diabetes Federation Statement 2007. 3. Karine Spiegel et al, J Appl Physiol 2005.
4. Daniel J Gottlieb et al, Circulation 2010. 5. Indian OSA Guidelines, Indian Journal of Medical Research 2014. 6. J Bolitschek et al, Eur Respir J 1998.

## OSA and its serious consequences

OSA is independently associated with<sup>2,3</sup>

- Insulin resistance
- Increases the risk of heart attacks
- Impaired glucose tolerance
- Weight gain
- Contributes to hypertension
- Type-2 diabetes



Untreated sleep apnea significantly impacts Quality of Life of patients across the four parameters of physical condition, psyche, social life and everyday life<sup>6</sup>

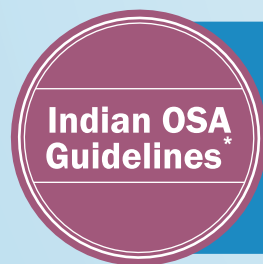
## Continuous positive airway pressure (CPAP) therapy: The gold standard treatment for OSA



International Diabetes Federation recommends that all type-2 diabetics should be evaluated to determine if OSA is present and that CPAP is the gold standard treatment<sup>7</sup>  
(Ref.: International Diabetes Federation Recommendation)

### Benefits of CPAP treatment

- ▶ Significant reduction in after-meal blood glucose level
- ▶ Reduction in HbA<sub>1c</sub> level
- ▶ Improvement in insulin sensitivity within 48 hours
- ▶ Lowering of blood pressure
- ▶ Reduction in cardio vascular risk
- ▶ Significant improvement in Quality of Life parameters



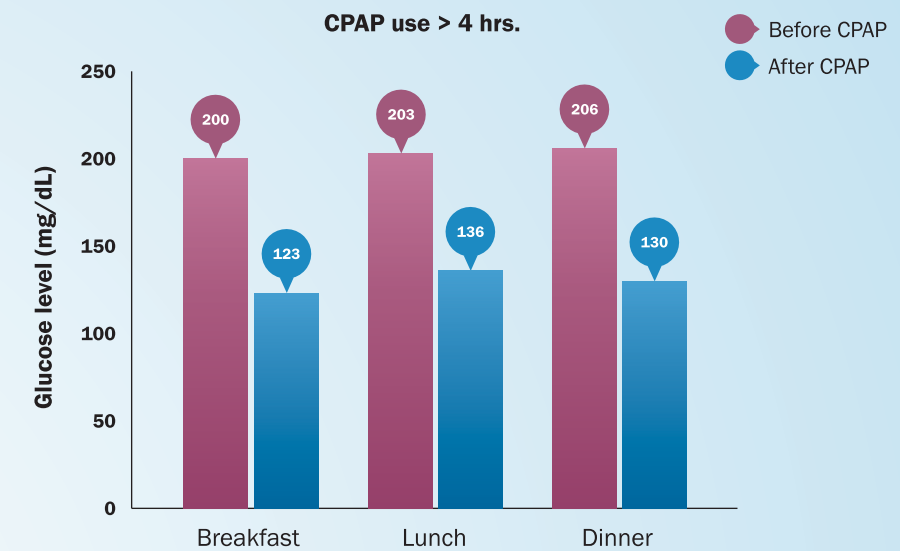
Effective CPAP treatment leads to improvement in Quality of Life, sleep architecture, neuro-cognitive performance and has positive effects on cardiovascular outcomes and overall mortality  
(Ref.: OSA Guidelines, Govt. of India)

<sup>7</sup>Indian OSA Guidelines, Govt. of India 2014.

References:  
7. International Diabetes Federation Statement 2007. 8. Babu Ambika R et al, Arch Intern Med 2005.

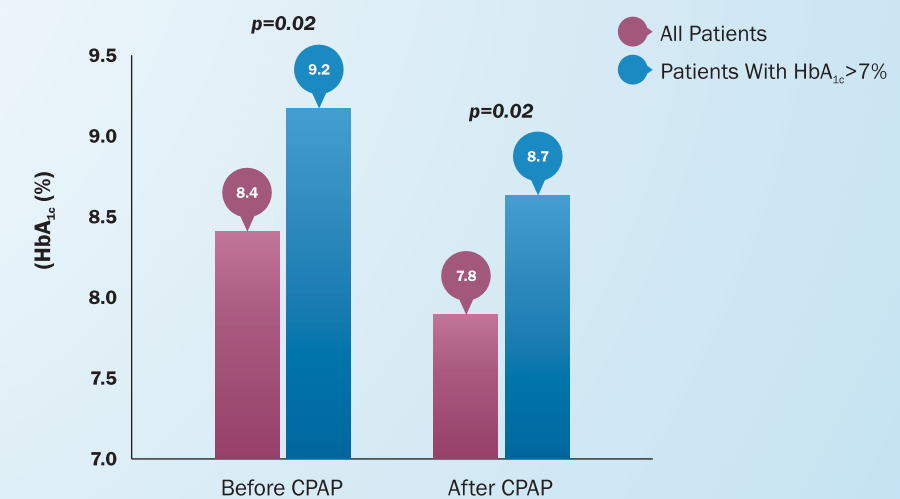
### Reduces Blood Glucose Level

- ▶ Significant reduction in after-meal blood glucose level after CPAP treatment<sup>8</sup>



### Reduces HbA<sub>1c</sub> Level

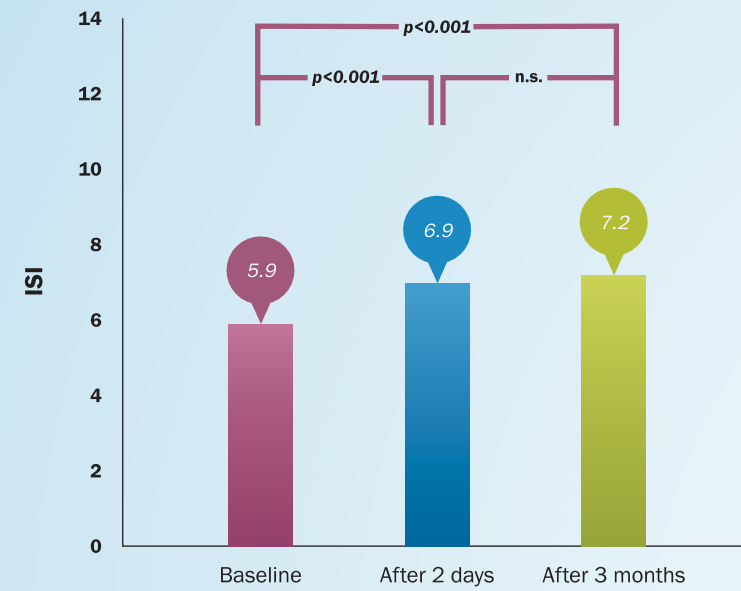
- ▶ Reduction in mean HbA<sub>1c</sub> levels before and after CPAP treatment in all patients and in patients with a baseline HbA<sub>1c</sub> > 7%<sup>8</sup>



**OSA is pathophysiologically related to impaired glucose homeostasis and CPAP is an important therapeutic approach for diabetic patients with OSA<sup>8</sup>**

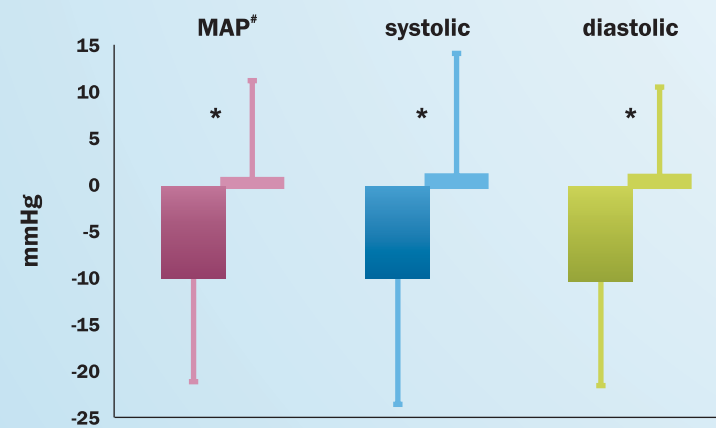
### Improves Insulin Sensitivity

- ▶ Significant improvements have been demonstrated in Insulin Sensitivity Index (ISI) after CPAP treatment<sup>9</sup>



### Lowers Blood Pressure

- ▶ Effective CPAP treatment in patients with moderate and severe OSA leads to a substantial reduction in both day and night arterial blood pressure<sup>10</sup>
- ▶ Drop in mean blood pressure by 10 mm Hg<sup>10</sup>



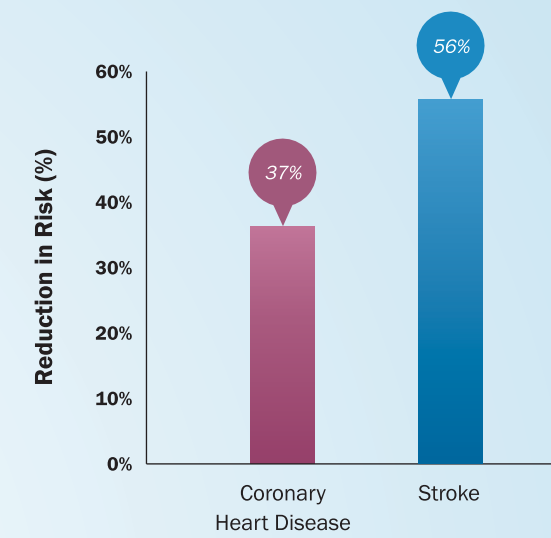
\*Mean Arterial Pressure

**References:**

9. Harsch Igor A et al, Am J Respir Crit Care Med 2004. 10. Becker HF et al, Circulation 2003. 11. J Bolitschek et al, Eur Respir J 1998.

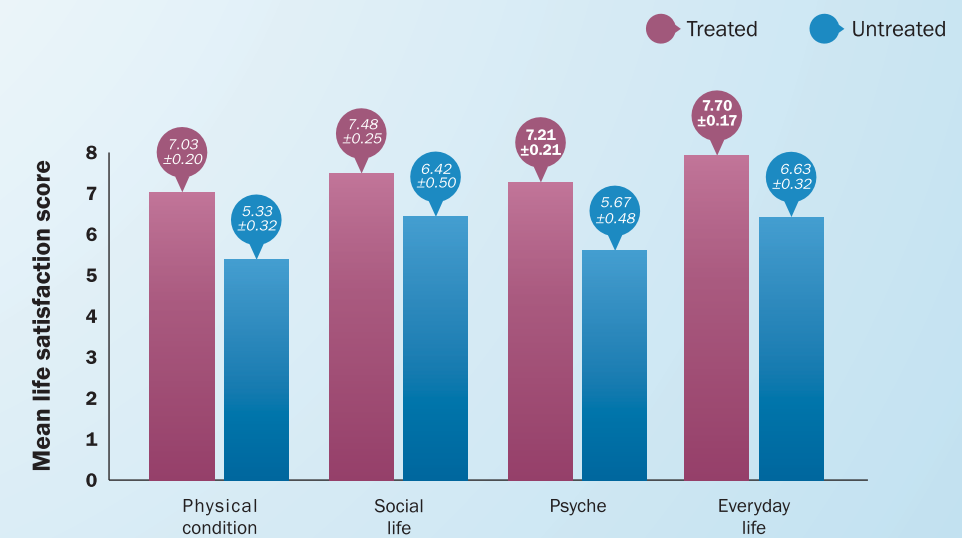
### Reduces the Risk of Stroke

- ▶ Reduces the risk of coronary heart disease by 37% and of stroke by 56%<sup>10</sup>



### Significant Improvement in Quality of Life Parameters

- ▶ CPAP improves Quality of Life parameters - physical condition, social life, psyche, and everyday life<sup>11</sup>



You can play the crucial role in treating OSA through 3 simple steps



1

### Assess - Assess the risk through the STOP-BANG questionnaire

- ▶ The risk of having sleep apnea can be assessed through the STOP-BANG questionnaire
- ▶ STOP-BANG is the appropriate questionnaire for screening and assessing the risk of OSA<sup>12</sup>

If the answer is Yes to ANY 3 or more of these questions, then the person may be at high risk of OSA and need to undergo a diagnosis

- Snoring**  
Do you snore loudly (louder than talking or loud enough to be heard through closed doors)?
- Tired**  
Do you often feel tired, fatigued, or sleepy during daytime?
- Observed Apnea**  
Has anyone observed you stop breathing during your sleep?
- Pressure**  
Do you have or are you being treated for high blood pressure?
- BMI**  
Is your BMI > 35 kg/m<sup>2</sup> ?
- Age**  
Is your age > 50 yrs?
- Neck Circumference**  
Is your neck circumference > 40 cm?
- Gender**  
Are you male?

2

### Diagnose: Diagnose through a simple home sleep study

Obstructive Sleep Apnea can be diagnosed through a simple overnight home sleep study, using the US FDA approved\* Alice PDx. Home sleep studies, using type 2 devices, are being increasingly preferred by physicians and patients for their convenience and comprehensiveness. Type 3 and 4 devices, having 2 to 4 channels, are not preferred as these are primarily screening devices and hence inadequate for credible and comprehensive diagnosis; while type 1 is used for diagnosis in hospitals.

**Severity Index of OSA<sup>12,13</sup>**  
 AHI ≤ 5 : Normal  
 AHI between 5 - 15 : Mild OSA  
 AHI between 15 - 30 : Moderate OSA  
 AHI ≥ 30 : Severe OSA

- ▶ Sleep study is done in the comfort and privacy of a person's home
- ▶ Comprehensive diagnosis & evaluation of sleep apnea and cardio-respiratory sleep disorders
- ▶ High quality and credible reports that are easy for physicians and patients to understand
- ▶ Enables the physician to easily and confidently start sleep practice
- ▶ Alice PDx is the winner of Medical Device Excellence Award (MDEA<sup>®</sup>) for home sleep studies



The credible and easy to understand report enables the physician to confidently prescribe appropriate treatment options

\*US FDA approval no. K090484

**References:**

12. Indian OSA Guidelines, Indian Journal of Medical Research 2014. 13. American Academy of Sleep Medicine 2009.

### 3

## Treat: Treat with REMstar Auto CPAP

CPAP (Continuous Positive Airway Pressure) is the gold standard and first line of treatment for Obstructive Sleep Apnea<sup>14,15,16</sup>

### Features of the REMstar Auto CPAP

- ▶ Digital Auto-Trak – delivers the right pressure relief at the right moment
- ▶ A-Flex - enhances comfort by matching pressure delivery with breathing cycle
- ▶ Auto Trial – provides clinicians the opportunity to do titration and therapy automatically and at the same time
- ▶ Opti-Start – improves comfort by reducing likelihood of events at the beginning of therapy
- ▶ Advanced Event Detection – tracks and reports patient's changing therapy needs
- ▶ System-One Resistance Control – ensures complete device-mask harmony for optimal pressure delivery
- ▶ Adjustable PSmin – provides clinicians with option for patients who need bi-level therapy



REMstar Auto CPAP is the most popular and among the quietest sleep therapy systems available

References:  
14. American Academy of Sleep Medicine 2009. 15. International Diabetes Federation Statement 2007. 16. Indian OSA Guidelines, Govt. of India 2014.

## Partner with PHILIPS

- ✓ The market leader in sleep medicine and respiratory care in India
- ✓ Sleep study, scoring and interpretation services through Philips Sleep Diagnostic Services. Manual scoring by certified RPSGTs ensure high quality and credible reports. This enables the doctor to confidently prescribe appropriate treatment options to the patients. It is the only one of its kind in India
- ✓ Conduct 1-day, 2-day and 3-day training & certification programs for doctors and technicians across India. Over 500 physicians and technicians trained and certified each year
- ✓ Collaboration with Indian Sleep Disorders Association (ISDA), the apex body in sleep medicine in India
- ✓ We have the maximum number of sleep lab (Type 1 & 2) installations in the country. This indicates the trust and confidence our doctors have placed in us
- ✓ Our team has the largest number of clinical specialists, application specialists, respiratory therapists and board certified RPSGTs. This demonstrates our focus and commitment towards patient care
- ✓ Dedicated marketing budget and customized marketing collaterals to promote partner sleep clinics / doctors
- ✓ Wide range of marketing activities, events for creating patient/public awareness
- ✓ Credible and complete range of sleep diagnostic systems, from level 1 to level 4
- ✓ Offices and channel partners across India

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