# Anne B\*

# A Case of Mild Obstructive Sleep Apnea and Intolerance to APAP Therapy



## HISTORY

- Anne reported fatigue, daytime sleepiness, and low energy levels throughout the day. No other health problems were reported.
- No medications except an over the counter daily multivitamin, calcium supplement, and loratadine for seasonal allergies.
- A home sleep study was performed one year ago. Anne was diagnosed with mild obstructive sleep apnea (OSA) with an apnea hypopnea index (AHI) of 12.
- Anne was prescribed APAP with a pressure setting range between 4-14cmH<sub>2</sub>0.

Female | Age 48 Registered Nurse Singe parent with two children

"eXciteOSA" was easy to use and I could wear it while spending time with my kids at home. I am happier, have more energy, and can get through the day and evening with no struggles."

### PRESENTATION

- "There are days where I hardly get any sleep at all and wake up feeling terrible. I'm tired throughout most of the day, especially in the evening."
- Chief complaints: Morning headaches, daytime fatigue, anxiety, and difficulty thinking clearly. She often lacked the energy to work late nights due to feeling overly tired. Her quality of life was noticeably affected.
- Despite using a steroid nasal spray as recommended, Anne's seasonal allergies and nasal congestion prevented her from using her APAP therapy more than a couple of times a week.
- APAP therapy was not helping at a level where Anne felt she was having restorative sleep, and she eventually gave up on therapy. Her homecare company suggested she speak with her physician.

## FOLLOW-UP

- Anne was still experiencing repeated and recurrent collapse of the upper airway during sleep, which lead to ongoing fragmented sleep. Thus, eXciteOSA® was prescribed for daytime use.
- Anne was adherent in using the eXciteOSA® device, 20 minutes, once a day for 6 weeks and was monitored via the eXciteOSA® physician portal.
- After 6 weeks of eXciteOSA<sup>®</sup> therapy, Anne noted she was sleeping better and feeling more refreshed in the morning.
- Anne was prescribed ongoing use of eXciteOSA® two times a week for 20 minutes each session.



# eXCIte<sup>osa</sup>

An Innovative, Daytime Therapy That Targets the Root Cause of Mild Obstructive Sleep Apnea and Primary Snoring



eXciteOSA® is the first, daytime therapy that works by using non-invasive intraoral neuromuscular electrical stimulation (NMES) – an electrical current to stimulate and improve muscle function of the tongue. The improved responsiveness of these muscles prevents the tongue from collapsing, maintaining upper airway patency. This reduces obstructive events, its associated desaturations, and improves the quality of sleep.<sup>1-3</sup>

Driven by the eXciteOSA<sup>®</sup> app, the eXciteOSA<sup>®</sup> device encourages high adherence due to its daytime use, patient engagement with the app as well as monitoring capabilities for physicians to communicate with their patients.

Results from multiple clinical studies have proven that muscle activity can be improved with electrical stimulation technology.<sup>1-3</sup>

#### Objective improvement in mild OSA with the use of eXciteOSA®

AVERAGE % REDUCTION IN AHI, ODI AND ESS IN PATIENTS WITH MILD OSA PRE- AND POST-THERAPY WITH eXciteOSA® 3 p<0.001

#### 79% of Patients Responded to Therapy\*

AVERAGE OF 52% REDUCTION IN AHI	PRE-THERAPY AHI	10.39
	POST-THERAPY AHI	4.95 <b>4111111111111111111111111111111111111</b>
AVERAGE OF 50% REDUCTION IN ODI	PRE-THERAPY ODI	8.6
	POST-THERAPY ODI	4.3 41111111111550% REDUCTION
AVERAGE OF 3.9 POINT REDUCTION IN ESS SCORE	PRE-THERAPY ESS	9.3
	POST-THERAPY ESS	5.4 <b>4</b> 111111 <b>3.9 POINT</b> <b>REDUCTION</b>

\*As measured by improvement in AHI

#### Improvement in snoring with the use of eXciteOSA®

AVERAGE % REDUCTION IN SNORING TIME AT >40DB IN PATIENTS PRE- AND POST-THERAPY WITH eXciteOSA® 3 p<0.001

<i>Objective snoring: Patients achieved an average reduction in snoring time of 41% at &gt;40dB</i>	PRE-THERAPY 30.41%		
	POST-THERAPY	17.87% <************************************	N
Subjective snoring: Patient bed partners reported an average snoring reduction of 39%**	PRE-THERAPY	6.1	
	POST-THERAPY	3.7 <	N
**As measured by VAS			<b>2r</b>

REFERENCES: 1. E.Wessoleck *et al.* Intraoral electrical muscle stimulation in the treatment of snoring. Somnologie (Berl). 2018; 22(Suppl 2): 47–52. 2. A.Sama *et al.* Daytime Intraoral Neurostimulation with Snoozeal® for treatment of Snoring and Mild Sleep Apnea. CHEST Annual Meeting Notes, 2018. 3. eXciteOSA® White Paper (2020). Clinical study of 115 patients with snoring or mild OSA (Apnea- Hypopnea Index (AHI) <15 n=65) completed the trial. Objective snoring and respiratory parameters were recorded with 2 consecutive WatchPAT® night sleep studies before and after the use of the device. An intra- oral tongue stimulator device was used for 20 mins, once a day for 6-week period. (Internal publication by SMT for educational purposes and submission.)

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