616 Atrium Drive, Suite 100
Vernon Hills, IL 60061
SnapDiagnostics.com

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RESPIRATORY ANALYSIS

Name:	Sample Patient	**Height:**	6' 1"
Birth Date:	mm/dd/yyyy	**Weight:**	245 lb
Age:	xx years old	**BMI:**	32.3
Sex:	Gender	**Neck Circumference:**	44.5 cm
Referred By:	Sample Provider, MD	**Service Date:**	mm/dd/yyyy

Unattended Home Sleep Study with simultaneous recording of heart/pulse rate, oxygen saturation, respiratory airflow and respiratory effort.

History: Observed apnea, habitual loud snoring, and Epworth scale greater than 9.

Comment:

Recording Time: 368 min **Analyzed Sleep Time:** 354 min

RESPIRATORY FINDINGS:

APNEAS		HYPOPNEAS		CALCULATED INDICES	
Total Number of Apneas:	78	Hypopneas 3%:	269	Total Apnea Index:	13.2
Obstructive Apneas:	76	Hypopneas 4%:	165	Hypopnea 3% Index:	45.6
Central/Mixed Apneas:	2			Hypopnea 4% Index:	28.0
Avg. Apnea Duration:	21 sec	Avg. Hypopnea Duration:	17 sec	Central/Mixed Index:	0.3
OXIMETRY DESATURATIONS				MaxDen10$_{RDI}$:	116.9
Time <= 88%: 4 min 1 %		Oximetry baseline:	98 %	REI 4%:	39.6
Number of desaturations: 233		Lowest 4% desaturation:	86 %	**AHI 4%:**	**41.2** (1% central)
		Lowest O2:	86 %	AHI 3% (RDI):	58.8 (1% central)

RESPIRATORY ANALYSIS SUMMARY

A total of 78 apneas (2 of which were Central/Mixed based on respiratory effort) and 269 hypopneas were identified. The total number of obstructive events (apneas and hypopneas) was 345. The Total Apnea Index (central/mixed and obstructive events) was 13.2 per hour. The Central/Mixed Apnea Index was 0.3 per hour based on respiratory effort. The Central/Mixed % Ratio (with H4%) was 1%. With H3% it was 1%.
During the recording period, there was a total of 233 desaturations. The baseline oxygen level was 98% and the lowest oxygen level with 4% desaturation was 86% . The time spent at or below an oxygen saturation of 88% was 4 min 1 %. The AHI 3% (RDI) was 58.8 per hour. During periods of the recording the Maximum Density of the AHI 3% (RDI) was elevated up to 116.9. The AHI 4% was 41.2 per hour; this index includes hypopneas that exhibit oxygen desaturations of 4% or greater, and all apneas.

INTERPRETATION:

During the recording there was evidence of severe obstructive sleep apnea (OSA).

Signature on file

Electronically signed by Sample Medical Director MD

Date Signed

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Sex:	Gender	**Neck Circumference:**	44.5 cm
Referred By:	Sample Provider, MD	**Service Date:**	mm/dd/yyyy

Unattended Home Sleep Study with simultaneous recording of heart/pulse rate, oxygen saturation, respiratory airflow and respiratory effort.

CONSIDERATIONS:

The following considerations represent clinical guidelines published by the American Academy of Sleep Medicine (AASM) and the American Academy of Dental Sleep Medicine (AADSM):

Positive Airway Pressure (PAP) Therapy: Positive Airway Pressure is the treatment of choice for mild, moderate and severe obstructive sleep apnea (OSA) and should be offered as an option for all patients.
Alternative therapies may be offered depending on the severity of OSA and the patient's anatomy, risk factors and preferences (Epstein et al., 2009; Caples et al., 2021).

- If continuous positive airway pressure (CPAP) therapy is considered appropriate, the predicted initial CPAP pressure is **9 cm H2O** (Miljeteig & Hoffstein, 1993). If auto-titrating PAP is considered appropriate, the treating pressure will be determined by the device's internal software.
- If PAP therapy is considered appropriate, a unique patient identification number may be used by the treatment provider to enable automatic tracking of PAP compliance for some PAP manufacturers on the Snap Diagnostics patient portal. The PAP Compliance Reporting Identification Number for this patient is ########.

Oral Appliance Therapy: The AASM and AADSM recommend the use of a custom, titratable oral appliance for (a) patients with primary snoring or (b) patients who are either intolerant to PAP or who prefer alternative therapies (Ramar et al., 2015). Follow-up testing should be performed to identify necessary adjustments and ensure adequate control of OSA (Caples et al., 2021). Prior to a trial of oral appliance therapy, patients with severe OSA should have an initial trial of nasal CPAP (Epstein et al., 2009).

Surgical Procedures: Surgical procedures may be considered as a secondary treatment for obstructive sleep apnea when outcome on PAP is inadequate or the patient is PAP-intolerant. Follow-up testing is recommended to ensure adequate control of OSA (Epstein et al., 2009; Caples et al., 2021).

Weight Management: Successful dietary weight loss may improve apnea severity in obese patients with OSA (Epstein et al., 2009; Caples et al., 2021).

Follow-up Testing: Follow-up testing is recommended to assess response to non-PAP treatment interventions.

NOTE: Follow-up testing may also be appropriate for patients on PAP therapy if: (a) symptoms persist or return despite good adherence to PAP treatment, (b) there is an unexplained change in PAP adherence or unexplained PAP-device generated data, (c) clinically significant weight gain or loss has occurred since diagnosis of OSA or initiation of treatment, (d) hypoxia and/or hypoventilation persist or develop, or (e) patient has a change in cardiovascular disease (Epstein et al., 2009; Ramar et al., 2015; Caples et al., 2021).

This home sleep test was completed after (1) face-to-face demonstration of the portable sleep monitoring device's application and use; or (2) the patient was provided with a training video and/or telephonic instruction. Snap Diagnostics provides 24 hour availability of qualified personnel to provide assistance during testing.

References available upon request.

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OXIMETRY ANALYSIS

Name:	Sample Patient	**Height:**	6' 1"
Birth Date:	mm/dd/yyyy	**Weight:**	245 lb
Age:	xx years old	**BMI:**	32.3
Sex:	Gender	**Neck Circumference:**	44.5 cm
Referred By:	Sample Provider, MD	**Service Date:**	mm/dd/yyyy

Unattended Home Sleep Study with simultaneous recording of heart/pulse rate, oxygen saturation, respiratory airflow and respiratory effort.

History: Observed apnea, habitual loud snoring, and Epworth scale greater than 9.

Recording Time 368 min

Recording Oximetry Time 353 min

Oximetry Baseline was 98 %

Oximetry Data:

Mean O2:	94 %
Highest O2:	98 %
minO2 (4% desaturations):	86 %
Lowest O2:	86 %
Number of Desaturations:	233
O2 Desaturation Index (ODI)	39.6
Time at or under 88%:	1 % 4 min
Mean Pulse Rate:	70 bpm

SpO2 Levels by Time:

95 - 100:	35 %	124 min
90 - 94:	62 %	218 min
85 - 89:	3 %	11 min
80 - 84:	0 %	0 min
75 - 79:	0 %	0 min
70 - 74:	0 %	0 min
Under 70:	0 %	0 min

OXIMETRY SUMMARY:

During the recording period:

- Total of 233 desaturations.
- The Desaturation Index was 39.6
- Oxygen level was at or under 88% for 1 % of the time.
- minO2 (4% desaturation) was 86 %.
- Lowest O2 level was 86 %.

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SNORING ANALYSIS

Name:	Sample Patient	**Height:**	6' 1"
Birth Date:	mm/dd/yyyy	**Weight:**	245 lb
Age:	xx years old	**BMI:**	32.3
Sex:	Gender	**Neck Circumference:**	44.5 cm
Referred By:	Sample Provider, MD	**Service Date:**	mm/dd/yyyy

Unattended Home Sleep Study with simultaneous recording of heart/pulse rate, oxygen saturation, respiratory airflow and respiratory effort.

Comment:

Snoring Data:

Snoring Index:	275.0
Primary Vibration Frequency:	49 Hz
Palatal like Vibration Freq: (type1,2)	49 Hz

Overall Snoring Loudness:

Max Relative Loudness: 14 dB (Moderate degree)
Average Relative Loudness: 11 dB (Moderate degree)

Snoring Distribution by Type:

Type 1:	70	81 %
Type 2:	12	14 %
Type 3:	4	5 %
Type 4:	0	0 %
Type WL:	0	0 %

Snoring Distribution by Loudness:

Ampl.Dist.Index(RESP85%): **14 dB (Marked)**
Ampl.Dist.Index(34W85%): **14 dB (Marked)**

Resistance Occurrence Percentage 52 %
(% of respiratory events with 1-4 or WL Type sound)

SNORING ANALYSIS SUMMARY:

The patient **snored at a rate** of approximately 275.0 snores per hour.

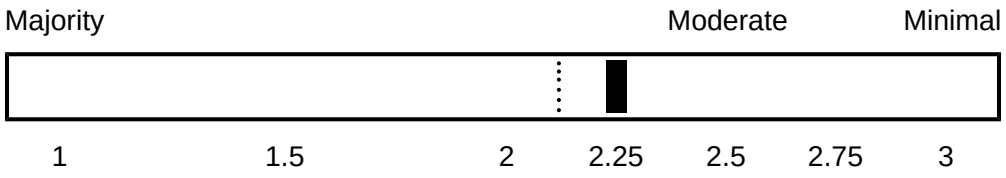
The **snoring distribution** suggests that vibration patterns which are similar to typical palatal snoring patterns (type 1,2), dominated 95 % of the snoring events.

The **maximum relative snoring loudness** (increase over respiratory baseline) was measured to be approximately 14 dB (Moderate degree).

The **average relative snoring loudness** (increase over respiratory baseline) was measured to be approximately 11 dB (Moderate degree).

The **typical palatal snoring patterns** were 14 dB louder than all other respiratory sounds, and in particular 14 dB louder than the non palatal snoring events.

Estimated Palatal Component



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BODY POSITION

Name: Sample Patient
Birth Date: mm/dd/yyyy
Age: xx years old
Sex: Gender
Referred By: Sample Provider, MD

Height: 6' 1"
Weight: 245 lb
BMI: 32.3
Neck Circumference: 44.5 cm
Service Date: mm/dd/yyyy

Unattended Home Sleep Study with simultaneous recording of heart/pulse rate, oxygen saturation, respiratory airflow and respiratory effort.

Events by Body Position

Body Position	minutes	% of time	# of Apneas	# of Hypop	# of Hypop4%	# of Central Apneas	# of desats
Right	25.2	7.1	9	18	11	0	20
Left	211.7	60.0	49	205	152	2	208
Supine	112.6	31.9	20	44	2	0	5
Prone	0.0	0.0	0	0	0	0	0
Sitting	3.6	1.0	0	2	0	0	0
Inverted	0.0	0.0	0	0	0	0	0
Undefined	0.0	0.0	0	0	0	0	0

Indices by Body Position

Body Position	minutes	% of time	AHI4%	AHI(RDI)3%	ODI	Apnea Index	Hypop Index	Hypop4% Index
Right	25.2	7.1	47.6	64.3	47.6	21.4	42.9	26.2
Left	211.7	60.0	57.0	72.0	59.0	13.9	58.1	43.1
Supine	112.6	31.9	11.7	34.1	2.7	10.7	23.4	1.1
Prone	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sitting	3.6	1.0	0.0	33.3	0.0	0.0	33.3	0.0
Inverted	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Undefined	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Snap Diagnostics Histogram

Last, First **Snap ID: ########** **Test Date: mm/dd/yyyy**