

Apnea Link Air Interpretations

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BlueSleep®



Page 1 Apnea Link Air report

Patient details	Diagnostic	Prescription	Notes	Logs
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Recording: [Raw data signals](#)**1** Click here to see the raw signal

Device	ApneaLink Air	Type:	III
Recording	Date: 07/30/2019 Start: 1:52am End: 8:44am Duration - hr: 6:52		
Monitoring time (flow)	Start: 2:02am End: 8:33am Duration - hr: 5:25		
Oxygen saturation evaluation	Start: 2:02am End: 8:44am Duration - hr: 6:38		

2. Make sure duration is sufficient for recording time, monitoring time (air flow cannula), and oxygen saturation evaluation (pulse oximeter). None of these can be zero. Usually want at least 2 hours.

Statistics



3. This is the average AHI all night in all positions

Events Index	REI (AHI):	76.0	AI:	72.7	HI:	3.3
Supine	Time - hr	3:43 (68.7%)	REI (AHI):	72.2	AI:	67.9
Non-supine	Time - hr	1:37 (30.0%)	REI (AHI):	87.9	AI:	86.7
Upright	Time - hr	0:04 (1.2%)	REI (AHI):	0.0	AI:	0.0
Events total	Apneas:	394	Hypopneas:	18		
Apnea index	Obstructive:	42.1	Central:	13.5	Mixed:	17.2
Cheyne-Stokes respiration	Time - hr:	0:00	Percentage:	0		

4. Note the time in different sleeping positions, and the score in those positions. Pay attention to time in supine position

5. Look at the distribution of types of events

6. Cheyne Stokes not very reliable

7. ODI is Oxygen Desaturation index

Oxygen desaturation	ODI:	69.5	Total:	462
Oxygen saturation %	Baseline:	93	Avg:	83
Oxygen saturation - eval time %	≤90%sat:	79	≤85%sat:	54
	≤88%sat:	67	≤80%sat:	32
			≤88%Time - hr:	4:27

8. Info about duration of hypoxia in percentage and total time

Graphs



1. Info about sleep position

2. Info about events

3. SNORING

4. Oxygen Saturation

5. Pulse and movement artifact.
Normals have a decrease in
pulse during night sleep

Cancel

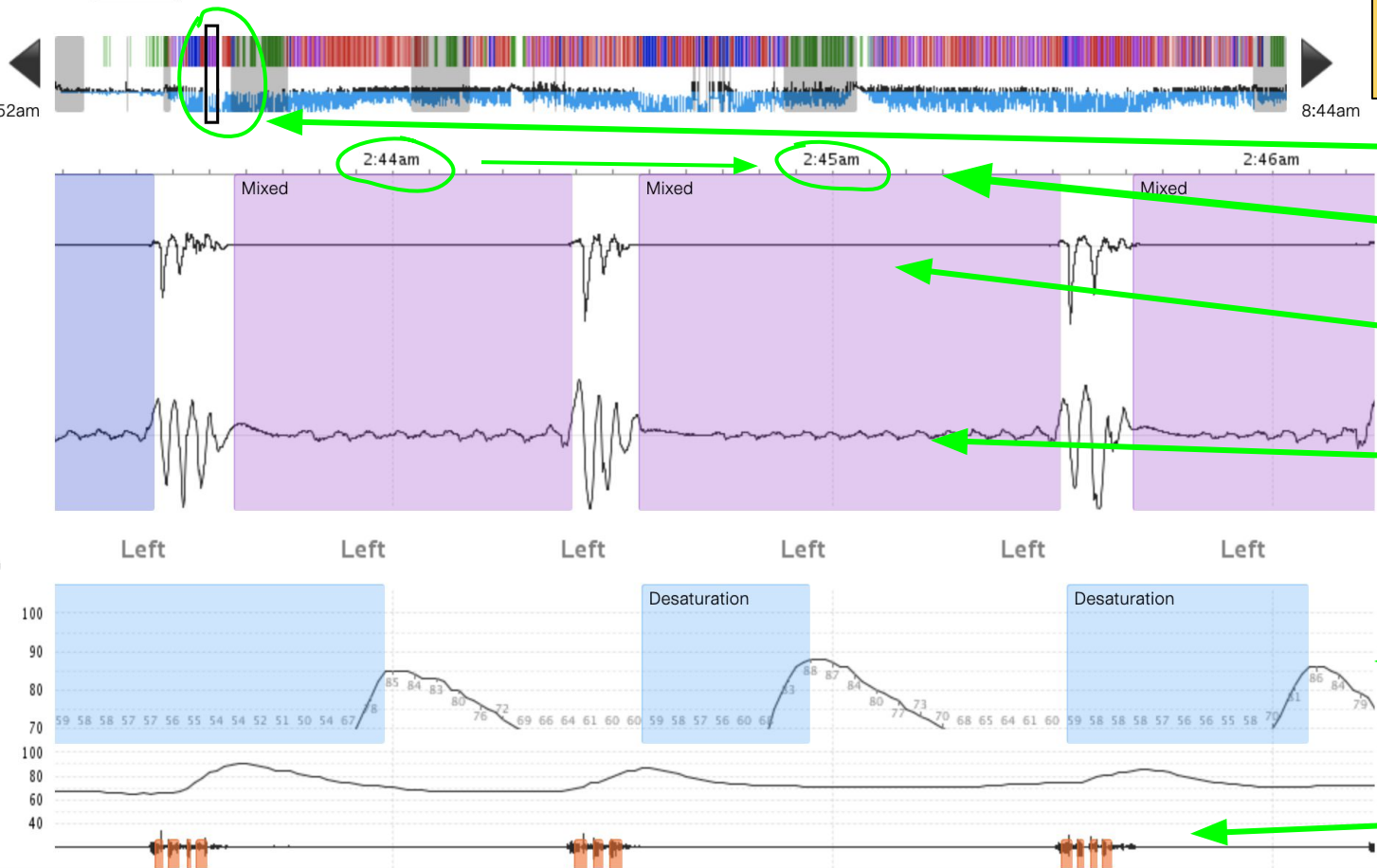
■ Unclassified apneas
■ Excluded data

8:44am

Snore

Left

6. Snores.



Data signals

Save

Cancel

Cheyne-Stokes

Central apneas

Obstructive apneas

Mixed apneas

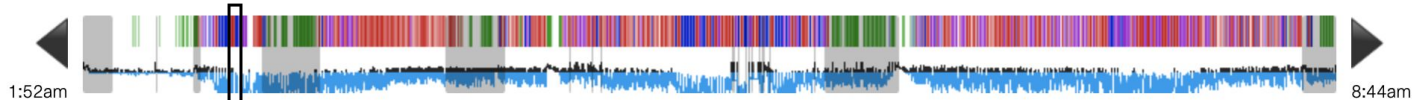
Unclassified apneas

Snores

Hypopneas

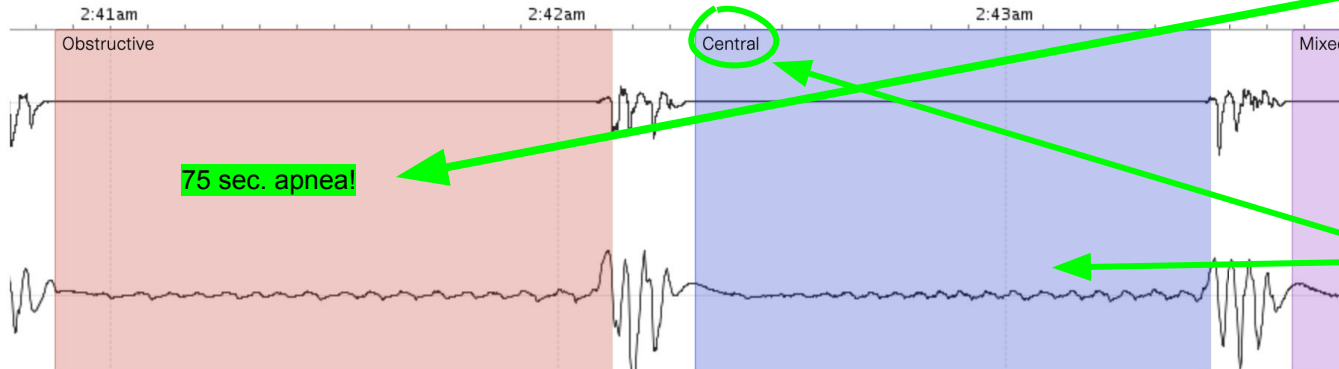
Desaturation

Excluded data



1. Obstructive Apnea longer than one minute

Events

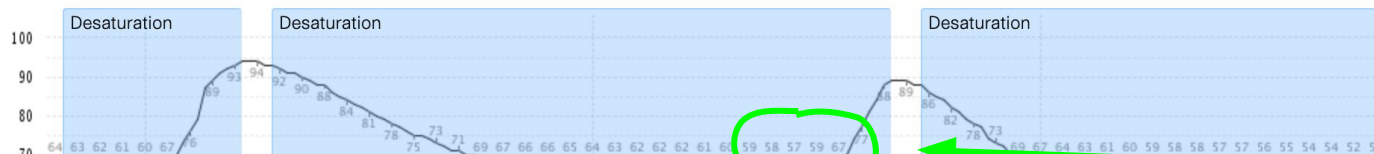


2. NOT a central apnea. Auto score is incorrect. There is visible effort on the tracing.

Body Position

Left Left Left Left Left Left

Ox %



3. Oxygen saturation nadir is 57%.

Pulse

Snore

Download HST raw data

Data signals

Save

Cancel

Cheyne-Stokes

Central apneas

Obstructive apneas

Mixed apneas

Unclassified apneas

Snores

Hypopneas

Desaturation

Excluded data

12:35am

8:02am

Events

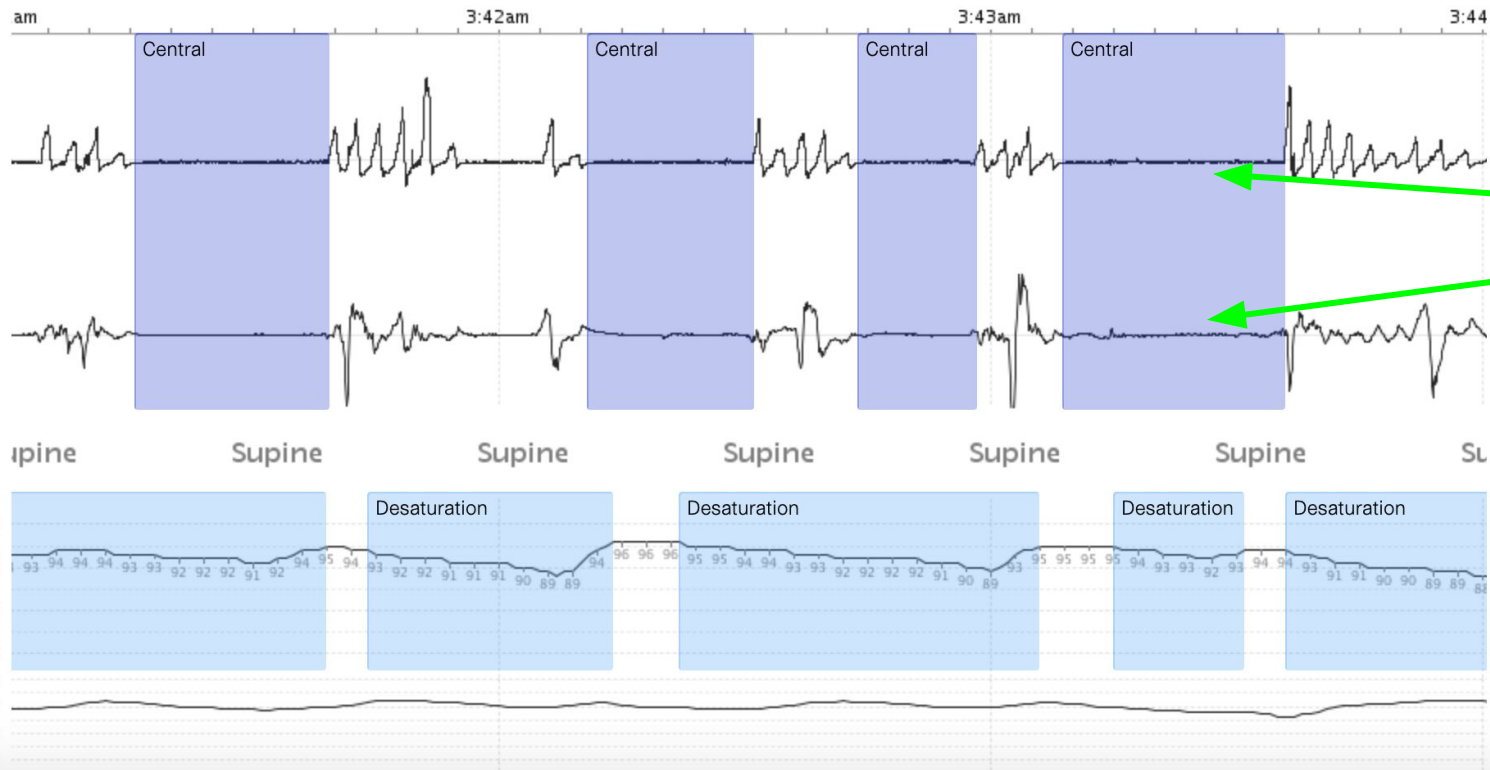
Flow

Effort

Body
Position

Ox %

Pulse



Central
Apnea:

No Flow


AND
No Effort

Recording details

08/08/2019

Device	ApneaLink Air		Type:	III
Recording	Start: 11:59pm	End: 7:50am	Duration - hr:	7:51
Monitoring time (flow)	Start: 12:26am	End: 7:48am	Duration - hr:	2:35
Oxygen saturation evaluation	Start: 12:09am	End: 7:50am	Duration - hr:	7:37

Statistics



Events index	REI (AHI): 18.1	AI: 11.2	HI: 6.9
Supine	Time - hr: 2:29	Percentage: 96.3	
	REI (AHI): 18.8	AI: 11.6	HI: 7.2
Non-supine	Time - hr: 0:05	Percentage: 3.7	
	REI (AHI): 0.0	AI: 0.0	HI: 0.0
Upright	Time - hr: 0:00	Percentage: 0.0	
	REI (AHI): 0.0	AI: 0.0	HI: 0.0
Events totals	Apneas: 29	Hypopneas: 18	
Apnea Index	Obstructive: 8.1	Central: 0.0	Mixed: 0.0
			Unclassified: 3.1
Cheyne-Stokes respiration	Time - hr: 0:00	Percentage: 0	
Oxygen desaturation	ODI: 12.1	Total: 92	
Oxygen saturation %	Baseline: 98	Avg: 94	Lowest: 81
Oxygen saturation - eval time %	<=90%sat: 3	<=85%sat: 0	<=80%sat: 0
	<=88%sat: 1	<=88%Time - hr: 0:02	
Breaths	Total: 1333	Avg/min: 8.6	Snores: 1305
Pulse - bpm	Min: 43	Avg: 55	Max: 206

Notice the different (low) monitoring time compared to the recording time

This is why we do a manual score.

Data signals

Save

Cancel

Cheyne-Stokes

Central apneas

Obstructive apneas

Mixed apneas

Unclassified apneas

Snores

Hypopneas

Desaturation

Excluded data

11:59pm

7:50am

Events

1:11am
small (flow)

1:12am

1:13am

Signal too small (flow)

Flow

2m 2s

Effort

Body
Position

Supine

Supine

Supine

Supine

Supine

Supine

Ox %

100

90

80

70

Pulse

100

80

60

Snore

40

The Grey zone is not auto scored.

We determine if the signal is adequate for a manual score. It frequently is adequate.

Note that the pulse oximeter signal is good.

Central Apnea

88 year old male

Recording : [Raw data signals](#)

Device	ApneaLink Air		Type:	III
Recording	Date: 08/09/2019	Start: 12:35am	End: 8:02am	Duration - hr: 7:26
Monitoring time (flow)		Start: 12:45am	End: 8:01am	Duration - hr: 5:23
Oxygen saturation evaluation		Start: 12:45am	End: 8:02am	Duration - hr: 7:14

Statistics

<div><div>051530</div><div>NORMALMILDMODERATESEVERE</div><div>77.1</div></div>				
Events Index		REI (AHI): 77.1	AI: 62.7	HI: 14.5
Supine	Time - hr 5:19 (98.8%)	REI (AHI): 78.0	AI: 63.4	HI: 14.6
Non-supine	Time - hr 0:00 (0.2%)	REI (AHI): 0.0	AI: 0.0	HI: 0.0
Upright	Time - hr 0:03 (1.0%)	REI (AHI): 0.0	AI: 0.0	HI: 0.0
Events totals		Apneas: 338	Hypopneas: 78	
Apnea index	Obstructive: 14.1	Central: 46.9	Mixed: 0.4	Unclassified: 1.3
Cheyne-Stokes respiration		Time - hr: 0:00	Percentage: 0	
Oxygen desaturation		ODI: 63.3	Total: 458	
Oxygen saturation %		Baseline: 96	Avg: 93	Lowest: 77
Oxygen saturation - eval time %		≤90%sat: 21	≤85%sat: 2	≤80%sat: 0
			≤88%sat: 8	≤88%Time - hr: 0:36
Breaths		Total: 2092	Avg/min: 6.5	Snores: 89



ResMed

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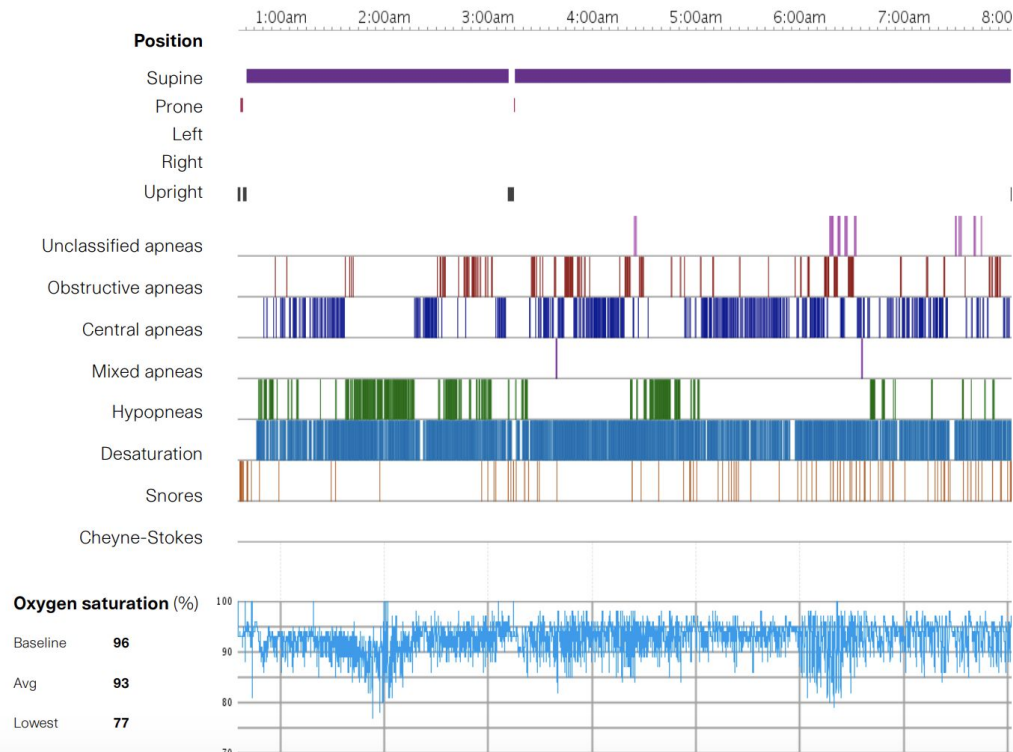
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BOYLE, J

Patient ID: YRA4
DOB: 03/17/1931
Age: 88

Graphs



Data signals

Save

Cancel

Cheyne-Stokes

Central apneas

Obstructive apneas

Mixed apneas

Unclassified apneas

Snores

Hypopneas

Desaturation

Excluded data

12:35am

8:02am

Events

Flow

Effort

Body
Position

Ox %

Pulse

am 3:42am 3:43am 3:44

Central

Central

Central

Central

ipine

Supine

Supine

Supine

Supine

Supine

Supine

Desaturation

Desaturation

Desaturation

Desaturation

