# 

# Date:

Dear (Participant) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:

Thank you for taking part in the MESA *Sleep* Study. Your efforts help researchers to better understand the links between sleep and risk of heart disease and other health conditions.

As a result of your participation in this study, you had an overnight sleep study in your home which included monitoring of your oxygen levels, breathing pattern, heart rate and sleep quality.

Your studies were done using a research protocol. We recommend that you discuss the results further with your health care provider.

[AHI > 50]

Sleep Apnea Finding

It is common for adults to have a few oxygen dips as a result of breathing pauses or shallow breaths. We recorded the number of drops in your oxygen and changes in your breathing each hour you slept using a measure called the Apnea/Hypopnea Index or AHI. Your AHI was:\_\_\_\_

Elevated levels of the AHI indicate a condition known as “sleep apnea.” Your study showed an AHI of 50 or more, a number that is much higher than normal and may be associated with health problems. Untreated sleep apnea may be associated with daytime sleepiness, an increased risk of motor vehicle accidents and, over the longer term, hypertension, diabetes, heart disease, and other health problems. We urge you to discuss this finding with your doctor to decide what further testing or treatment is needed.

[Oxygen level <85% saturation for ≥10% of TST]

Low Oxygen Level during Sleep

Oxygen levels during sleep are usually above 92. We measured the percentage of the sleep time when your oxygen levels were below 85, a very low level. The percentage of time your levels were below 85 was \_\_%.

Your oxygen level during the sleep study was very low. This could indicate severe sleep apnea, a condition when there are frequent breathing pauses at night. This finding could also indicate lung or heart problems. We urge you to discuss this finding with your doctor to decide what further testing or treatment is needed.

[Oxygen level during wake of < 88%]

Low Oxygen Level during Wake

Oxygen levels during wake time are usually above 92. Your oxygen level while wake was \_\_\_\_. This is a low level. This finding could indicate lung or heart problems. We urge you to discuss this finding with your doctor to decide what further testing or treatment is needed.

[Heart rate >=150 bpm or <=30 bpm for 2 or more consecutive minutes or Type 2 second degree heart block or 3rd degree heart block or Non-sustained ventricular tachycardia (3 or more runs in a row > 120 BPM]

Heart Rate or Rhythm During Sleep

During the overnight sleep study, we measured your heart’s rate (how fast or slow it is) and its overall pattern (or rhythm).

Your heart rhythm during the overnight sleep study showed an abnormality. We urge you to discuss this with your doctor to decide what further testing or treatment is needed.

Acute ST segment (suggests ischemia) (in sleep or wake)

The ECG collected during the overnight PSG showed possible abnormalities that could happen when your heart muscle is not receiving enough oxygenated blood. However, this pattern may also occur normally. We suggest you discuss this with your physician to determine if additional evaluation is needed.

The Summary of Overnight Sleep Study report is attached. With your permission, a copy of these results will be sent to your doctor. We recommend that you discuss these results with your doctor, who can help you decide if further evaluation and treatment is needed.

If you have any questions, please call \_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_.

# Text Description automatically generated with low confidence

# Date:

Dear Doctor \_\_\_\_\_\_\_\_\_:

# Re:

Your patient, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, is a participant in the research study “ Multi-Ethnic Study of Atherosclerosis (MESA) *Sleep* Study.” This study is being conducted at the University of X by Dr. X of the Department of X. MESA*-Sleep* collects information that will help researchers understand the relationship between sleep disturbances and cardiovascular disease and other health conditions. Your patient asked that we forward a copy of his/her sleep study results for your review.

He/She had an overnight polysomnogram in his/her home which included the monitoring of oxygen saturation, respiratory effort, airflow, body position, heart rate, leg movements and sleep stage. As a result of this study, a marked abnormality was identified.

\_\_AHI (Apnea Hypopnea Index) > 50

An AHI of less than 5 is considered normal, 5 to 15 are moderately elevated and greater than 30 are markedly elevated, and greater than 50 severely elevated. Untreated sleep apnea may be associated with an increased risk of motor vehicle accidents and, over the longer term, hypertension, diabetes, heart disease, and other health problems. We have notified your patient of his/her AHI and urged him/her to discuss this with you for further evaluation. Referral to a sleep specialist may be needed for further evaluation and consideration of treatment.

\_\_Oxygen saturation <85% for ≥10% of Total Sleep Time

This measure reports the proportion of the sleep period when oxygen saturation is below 85%. A very low level of hemoglobin oxygen saturation during sleep was identified. This could indicate severe sleep apnea and/or underlying cardiopulmonary disorders. We have notified your patient of an abnormal finding and urged him/her to discuss this with you for further evaluation. Referral to a sleep specialist may be needed for further evaluation and consideration of treatment.

\_\_Low oxygen saturation during wake at the beginning of the PSG study) of < 88%

Your patient had very low levels of oxygen at the beginning of the sleep study (during wake). We have notified your patient of an abnormal finding and urged him/her to discuss this with you for further evaluation.

\_\_Heart rate >=150 bpm or <=30 bpm for 2 or more consecutive minutes.

Your patient’s heart rate during sleep was very fast (or very slow) for 2 or more minutes during the sleep study. We have notified your patient of an abnormal finding and urged him/her to discuss this with you for further evaluation.

\_\_Type 2 second degree heart block or 3rd degree heart block

The ECG performed during the overnight sleep study suggested a Type 2 second degree heart block (or type 3 heart block). We have notified your patient of an abnormal finding and urged him/her to discuss this with you for further evaluation.

\_\_Non-sustained ventricular tachycardia (3 or more runs in a row > 120 BPM).

The ECG performed during the overnight sleep study showed one or more periods of non sustained ventricular tachycardia. Although the clinical implications of this are unclear, in the presence of underlying heart disease, this finding may be of importance. We have notified your patient of an abnormal finding and urged him/her to discuss this with you for further evaluation.

\_\_Atrial fibrillation

The ECG performed during the overnight sleep study suggested atrial fibrillation. If this is a new finding or if the ventricular response is suboptimal, this finding should be evaluated. We have notified your patient of an abnormal and urged him/her to discuss this with you.

\_\_Acute ST segment (suggests ischemia) (in sleep or wake)

The ECG collected during the overnight PSG showed prominent ST segment elevations. While this could be due to electrode placement or patterns of abnormal repolarization, it may also suggest ischemia.

This test was performed for research purposes only and should be interpreted in the context of your patient’s clinical condition.

A copy of your patient’s Overnight Sleep Study is attached.

Please call X, at X, if you have questions about this study or want to discuss the results.